

PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL COMMITTEE, ODISHA HELD ON 20TH AUGUST, 2022

The SEAC met on 20th August, 2022 through video conferencing in Google Meet under the Chairmanship of Sri. B.P. Singh. The following members were present in the meeting.

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

CONSIDERATION OF OLD PROPOSALS (COMPLIANCE RECEIVED):

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

ITEM NO. 01

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S FERRO ALLOYS CORPORATION LIMITED (FACOR) FOR KATASAHU MANGANESE ORE MINES FOR PRODUCTION OF 28,119 TPA ROM OF MANGANESE ORE WITH TOTAL EXCAVATION OF 68,289 TPA (ROM OF 28,119 TPA + WASTE OF 40,170 TPA) FROM OVER AN AREA OF 13.674 HA. IN VILLAGE- KATASAHU UNDER BLOCK- JODA, SUBDIVISION - CHAMPUA IN KEONJHAR DISTRICT OF ODISHA – TOR

1. The proposal was considered by the committee to determine the “Terms of Reference (ToR)” for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.
2. M/s Ferro Alloys Corporation Limited (FACOR) has applied for “Terms of Reference (ToR)” for Katasahi Manganese Ore Mines for production of 28,119 TPA ROM of Manganese ore with total excavation of 68,289 TPA (ROM of 28,119 TPA + waste of 40,170 TPA) from over an area of 13.674 ha. in village- Katasahi under Block- Joda, Subdivision - Champua in Keonjhar district of Odisha.
3. The project falls under category “B” or activity 8 (a) - Building and Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
4. The Mining Lease of Katasahi Manganese Mines was granted in favour of M/s Ferro Alloys Corporation Limited (FACOR) vide proceeding no. 3339 /SM, dtd. 04.05.1998 issued by Department of Steel and Mines, Govt. of Odisha. Subsequently the lease deed was executed for entire lease area over 13.674 ha. for 20 years, from 01.08.1998 to 31.07.2018. By virtue of Section-8A (3) of MMDR Act-2015, the mining lease of Katasahi Manganese Mines is deemed to have been granted upto 31.07.2048. Katasahi Manganese ore mines has no previous EC.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Consent to Operate was issued by SPCB, Odisha for production of 5040 TPA of manganese ore vide letter no. 13493/IND-I-CON-5572, dated 16.08.2010, valid upto 31.03.2011.

5. The lessee has reported the opening date of mining to be 30.04.2001. However, the commercial production from the mines has been started in 2002. The mining operation has been stopped within the lease area since 27.08.2010 by the IBM due to violation found against the approved mining scheme; later the same suspension has been revoked by IBM itself vide its order of 25.01.2011. But mining operation has not started after that due to lack of EC & FC. At the time of lease execution, entire 13.674 Ha was classified as non- forest land, but later on the office of Tahasildar, Badbil, vide his Memo no. 3047 dtd. 28.06.2016 has verified the total mining lease area of 33.79 Ac (13.674 Ha.) of Katasahi Manganese Mines of FACOR and certified that out of 13.674 ha., 8.725 ha. area was coming under Forest Category as per Sabik Settlement Record of 25.10.1980. Accordingly, application for diversion of 8.725 Ha. forest land for non-forest purpose (mining) is submitted to MoEF&CC.
6. Now, the lessee has decided to restart production of manganese ore to maximum ROM of 28,119 TPA (20,527 TPA of +20% grade manganese ore and 7,592 TPA of +10 to +20% grade manganese ore) with total excavation of 68,289 TPA (ROM of 28,119 TPA + 40,170 TPA of waste) from the lease area. Scheme of Mining with Progressive Mine Closure Plan was approved by Regional Controller of Mines, Indian Bureau of Mines vide letter no- MS/OTF-MECH/63-ORI/BHU/2010-11, dated 11.04.2011. Then the Review of Mining Plan along with Progressive Mine Closure Plan has been approved for the period 2021-22 to 2025-26 by the same authority vide letter no- RMP/A/24-ORI/BHU/2020-21/1269, dated 23.11.2021. The project cost is estimated to be Rs. 7.31 crores.
7. **Location and Connectivity** - The lease area falls in Toposheet No 73G/5 (F45 N5) and bounded by latitude $21^{\circ} 57' 33.27''$ N to $21^{\circ} 57' 14.79''$ N and longitude $85^{\circ} 19' 01.26''$ E to $85^{\circ} 19' 27.72''$ E. Nearest town are Barbil (21km away) and Koida (9km away) where all facilities like medical, postal, education, market, etc are available. The area does not have any monuments of historical or archeological importance, pilgrimage, any place of tourist interest, national park, bird or wild life sanctuary within 10km radius. Interstate boundary between Odisha and Jharkhand lies at distance of 9.5km from the proposed project site. The mining lease area is having flat to adulatory topography with a hillock located to the western portion of the leasehold. The general slope of the area is to the south. The altitude in highest part of the area is 622.5m RL while lowest part is 567.5m RL. Surface runoff water flows along the natural slopes into Suna Nadi/ Kundra nala in southern side of the lease area. The mining lease area is located in tropical region where climate is characterized by hot summers and cool winters.
8. **Total Reserves and Method of Mining** - Katasahi mining lease area over 13.674 hectares consisting of two blocks i.e. Block- A (9.275 ha) and Block- B (4.399 ha). Geological reserves of 455,983 MT and Mineable reserves of 411,320 MT have been assessed for the manganese ore in the lease area. The future mining will continue simultaneously in the existing two pits (Quarry- 1 & Quarry- 2) within the lease area to gradually achieve the production target of 28,119 tons of manganese ore per annum. Life of the mine is 15 years whereas ore to waste ratio was 1:0.72 (t/ m³).

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

9. Open cast mechanized method of mining on single shift basis with drilling & blasting is proposed to excavate the manganese ore. Height and width of the benches will be maintained at 6m & 9m respectively; overall quarry slope angle will be maintained at 30° with horizontal. ROM of Manganese ore lifted from mines will be transported to manual breaking, sorting & sizing yard from where manganese ore with +20% Mn will be dispatched to consuming industries like steel plants, ferro-manganese plants, silico-manganese plants, etc and sub grade ore with 10% to 20% Mn will be stacked initially & dispatched subsequently after blending with +20% Mn as per demand.
10. **Waste Generation and Management** - Presently, an area of 3.738 ha. is already degraded in the lease area due to previous mining & ancillary activities and conceptually, this area increases to 7.645 ha. No top soil will be generated from the Quarry- 1 whereas from Quarry-2 3,000 m³ of top soil will be generated during review of Mining Plan period, which will be stacked temporarily over 0.1 ha. in Block – B & use for plantation in subsequent years. At present there are 3 waste dumps (Dump-1, Dump-1A & Dump-2, which are all inactive in nature) having total volume of 13,060 m³ occupying 0.45 ha. in total. During the proposed mining period, Dump-1 & Dump- 1A shall be merged. Conceptually the 2 waste dumps (Dump – 1 & Dump - 2) will occupy 1.176 ha.; of which 0.315 ha. will be occupied by Dump -1 & 0.861 ha. will be covered by Dump- 2. Both the dumps will attain a height of 10m in one tire. During tenth year of mining i.e. 2032-33, backfilling will start from the southern part of the Quarry- 1. 2,00,257 cum waste (total waste to be generated in the last 10 years of mining) will be utilized for reclamation of mined out land of Quarry - 1; balance 91,780 cum waste will be dumped in existing two dumps. Quarry- 2 will be converted to water body at the end of the life of the mine.
11. **Water Requirement** - The peak water requirement shall be 30 m³/ day and shall be met from the ground water with due permission. Ground water table will not be intersected as ultimate working depth of the mines will be at 566m AMSL whereas the water table of the area reaches maximum upto 550m AMSL during post monsoon period.
12. **Employment Generation** - The mining activity shall generate direct employment opportunity of about 77 nos. and most of them shall be fulfilled from the locals.
13. The project cost is estimated to be Rs. 7.31 crores. A fund of Rs 80 lakhs has been earmarked as capital cost for the implementation of EMP and Green Belt Development plan. Recurring cost of Rs 25 lakhs annually.
14. The Environment consultant **M/s Centre for Envotech & Management Consultancy (P) Ltd., Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee on 13.04.2022.
15. The Committee observed that the mine had gone for production in the year 2010-11 and 2011-12 without Environmental Clearance and subsequently closed due to want of Environmental Clearance and Forest Clearance. The committee also observed nearby habitation is 100 meter away from the mining lease area.
16. The SEAC in its meeting held on dated 13.04.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
1.	<p>The mine had gone for production in the year 2010-11 and 2011-12 without Environmental Clearance and subsequently closed due to want of Environmental Clearance and Forest Clearance. The lessee has to clarify as to why the case will not be considered as violation case.</p>	<p>It is a fact that Katasahi Manganese Mines had produced mineral upto 2010-2011 without Environmental Clearance. As such this Case may be considered in the violation category as per the Guideline of MoEF, Government of India. Pertinent to mention here that against the said violation, we have already paid Rs. 11,20,23,192/- on dtd 22.03.2021 to the office of Deputy Director of Mines, Joda Circle as compensation u/s -21(5) MMDR Act-1957 in compliance to the Common Cause judgment dt. 02.08.2021 passed by Hon'ble Supreme Court of India.</p> <p>In this connection, we would also like to place on record that M/s. Ferro Alloys Corporation Limited has gone through Corporate Insolvency Resolution Process (CIRP) under Insolvency and Bankruptcy Code, 2016 (IBC-2016) from the order dtd. 06.07.2017 passed by Hon'ble National Company Law Tribunal, Cuttack Bench. In compliance to the said order of NCLT Cuttack, a new Board of the company has been constituted by Vedanta Ltd. on 21.09.2020 to implement the approved resolution plan.</p>
2.	<p>A Primary school is located within the lease area and a ME school is located adjacent to lease area, Cremation ground at 300 mtr distance and Grazing land of 6.681Ha. PP needs to bring it to the knowledge of the Government on the above and submit the response of the later.</p>	<p>On 25.09.1975, we have field application for grant of mining lease in Katasahi village of Keonjhar District. After a prolonged legal battle Hon'ble High Court of Odisha vide its order dtd.05.11.1993 in O.J.C No. 3622 of 1990 and order dtd.14.03.1996 in C.R. No. 43 of 1994 have directed the State Government to consider grant of the Katasahi Manganese Mining lease in favor of M/s. Ferro Alloys Corporation Ltd. (FACOR).</p> <p>Compliance to the said order of High Court, Department of Steel and Mines Govt. of Odisha has issued grant order in favour of FACOR vide Proceedings dtd. 08.09.1997 for Manganese ore Lease over 14.123 hect area of Katasahi village. Subsequently vide its proceedings dtd 04.05.1998, Dept. of Steel and Mines has revised the lease area and restricted it upto 13.674 hect based on the Final Survey and Demarcation Report submitted by Dy. Director of Mines Joda Circle to the Director of Mines, Odisha. Eventually Collector and District Magistrate of Keonjhar has executed the lease deed on dtd. 01.08.1998 for 13.674 hect area in favour of Katasahi Manganese Mines of FACOR.</p> <p>It is evident from the above facts that the mining lease of Katasahi Mines has been executed after</p>

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

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		<p>proper field verification and examination of the existing elements by Dept. of Steel and Mines, Govt of Odisha, Collector Keonjhar and acknowledging / admitting the fact that one primary school is located within the mining lease area. Moreover on 24.01.2001, Collector of Keonjhar vide its order no.234 has granted Surface Right over 16.47 Acre (6.665 hect) of lease area of Katasahi Mines for commencing mining operation there. Copy of the said Surface Right order is enclosed herewith as Annexure -1 for your records and reference.</p> <p>According to Condition No.6 of the Surface Right order, Clause -5 of Part-III of the executed lease deed, Rule-27(1) (h) of Mineral Concession Rules-1960 and Rule-12(1) (d) of the Minerals (Other than Atomic and Hydro Carbons Energy Minerals) Concession Rules, 2016. <u>“the lessee shall not work within 50 meters of any Railway Line, Public Roads, National Highway, Canal or Buildings without specific permission of Collector”.</u></p> <p>As far as the compliance of distance is concerned, we hereby assure that the Quarry no.1 and 2 of Katasahi Mines are more than 250 meters away from the School Boundary and the approved Dump No. 1A is more than 153 meters away from the existing School. Copy of the Surface Geological Map duly approved by Indian Bureau of Mines Bhubaneswar is enclosed herewith as Annexure - 2 for your kind perusal to confirm that the lessee is not working within 50 meters of the existing school.</p>

The SEAC after detailed presentation by the project proponent along with consultant noted that the proponent has gone for excess production of Iron Ore without prior Environmental Clearance under EIA Notification, 2006. The SEAC, after detailed deliberations on the proposal in terms of the provisions of the MoEF&CC, Govt. of India Notification dated 14th March, 2017, confirmed the case to be of violation of the EIA Notification, 2006 and **recommended for issuing Standard Term of Reference as per Annexure - A along with the following specific Term of Reference and additional specific conditions as recommended by CSIR-NEERI on carrying capacity study as per Annexure - B** for undertaking EIA and preparation of Environmental Management Plan (EMP):

- (i) The State Government to take action against the project proponent under the provisions of section 19 of the Environment (Protection) Act, 1986, and further no Consent to Operate to be issued till the project is granted Environmental Clearance.
- (ii) The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

the SPCB prior to the grant of Environmental Clearance. The quantum shall be recommended by the SEAC and finalized by the regulatory authority i.e. SEIAA, Odisha. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the SEAC and approval of the regulatory authority i.e. SEIAA, Odisha.

- (iii) Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.
- (iv) Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
- (v) The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter in the EIA report by the accredited consultants.
- (vi) Public hearing shall be conducted for the proposal as per procedure laid down in EIA Notification, 2006 and amendment thereafter.
- (vii) To submit the lease sketch approved by DMG, at the time of presentation before SEAC.
- (viii) Fund allocation for Corporate Environment Responsibility (CER) shall be made as per Ministry's O.M. No. 22-65/2017-IA.III dated 1st May, 2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report.
- (ix) Detailed hydrological study to be carried out in core and buffer zone of the project as per the recent GEC guidelines 2015.
- (x) Approved mining plan is to be submitted.
- (xi) Recent compliance report from the regional office of MoEF&CC, Govt. of India, Bhubaneswar for the existing Environmental Clearance, if any.
- (xii) Considering that there is a primary school and cremation ground nearby, blast vibration study is required to be carried out with a few trial blasts to establish the blasting parameters to avoid the hazards due to fly rock and vibrations. There is a serious safety concern of having a school within the mining lease though beyond 250m distance. Supporting documents to be submitted along with EIA report to the alternate arrangement or how to maintain safety (in case mining is continued in presence of school). The PP shall bring this fact to the knowledge of the Government and submit the response letter to SEAC positively as they are very sensitive.
- (xiii) Compliance to NEERI recommendation with reference to Production of Manganese Ore from Steel and Mines Department, Government of Odisha is to be submitted.

ITEM NO. 02

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S RENEWABLE ENVIROGIC PVT. LTD. FOR SETTING UP A COMMON BIO-MEDICAL WASTE TREATMENT FACILITY (CBMWTF) OVER LEASE AREA 0.60 HA/1.5 ACRES LOCATED AT VILLAGE - SIALBAHALI, TAHASIL -BALANGIR, DIST-BALANGIR OF SRI DEBASIS TRIPATHY – EC

1. This is a proposal for Environment Clearance of M/s Renewable Envirogic Pvt. Ltd. for setting up a Common Bio-Medical Waste Treatment Facility (CBMWTF) over lease area 0.60 ha/1.5 acres located at village - Sialbahali, Tahasil -Balangir, Dist-Balangir of Sri Debasis Tripathy.
2. The project falls under category “B” or activity 7(da) - Common hazardous waste treatment, storage and disposal facilities (TSDFs) under EIA Notification dated 14th September 2006 as amended from time to time.
3. The proposed project is Setting up a Common Biomedical Waste Treatment Facility with a capacity to treat 5 tonnes of Bio-Medical Wastes per day, covering 10,000 beds for health care establishment.
4. ToR was issued by SEIAA vide letter No: 3489/SEIAA on dated 18.11.2021.
5. Public Hearing was conducted in Jhankaripalli Grampanchayat Building, Balangir on dated 11.01.2022.
6. **Location and Connectivity** – The proposed project is located in Khata No.18, Plot No. 617 and bounded by Latitude: 20°45'13.35"N Longitude: 83°23'13.29"E and falls on Survey of India (SOI) Topo-sheet No : F44X05 & F44X06 of Mouza- Sialbahali, Tahasil-Balangir, District – Balangir, State - Odisha. Nearest State/ National Highway is SH-42 at a distance of 2.40KM. Nearest Railway Station is Balangir Railway Station at 13.40Km. Nearest Airport is Biju Patnaik International Airport, Bhubaneswar at 259 km & Tusura Air Strip at 75.96 KM. Nearest RF / PF are Chandli R.F at 53km, Magurbeda R.F at 3.47km, Garhsankar R.F at 7.02km, Sundei R.F at 5.21km, Brahmani R.F at 4.58km. Nearest River is Suktel Nadi at 2.44 Km & Lower Suktel Dam at 5.31 km. Highest Flood Level (HFL) from the Project Boundary is 5.2 km. Nearest Densely populated is Balangir Town- 8.44 Km. It falls under Seismic Zone – II. The topography of the land is generally flat and well suited for development of industrial projects. This area also does not form part of any National Park, Wild Life Sanctuary and Natural/Biosphere reserve.
7. **Water Requirement** - Total water requirement for the CBWTF project is 9.5 KLD which will be sourced from bore wells & water tankers. A rainwater harvesting system will be also be set up at the plant to ensure better water management.
8. **Waste water management** - Total water requirement of the proposed project is 9.5 KLD which is sourced from bore well /tankers. Total 3.0 KLD of Effluent shall be generated from the proposed project including 1.0 KLD of domestic sewage. Looking to the present quantity of effluent and considering future requirement, an Effluent Treatment Plant of 10 KLD capacity has been proposed to treat the effluent. The effluent generated or treated from the premises will be following limits Parameters Permissible Limits pH 6.5-9.0 Suspended solids 100 mg/l Oil and grease 10 mg/l BOD 30 mg/l COD 250 mg/l Bio-assay test 90% survival of fish after 96 hours in 100% effluent.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

9. Power Requirement - DG set of 125 KVA is proposed for the project and 100 KW power from 11KV lines will be taken with due permission from concerned authority.

10. Fuel consumption - Incinerator – LDO/HSD @ 35 litres/hr for 10 hrs = 350 litres/day.
Autoclave Boiler-LDO/HSD @ 15 litres/hr = 150 litres/day.

Total LDO/HS = 500 litres/day.

Diesel for DG Set @ 12~15 litres/hr (in case of Power Failure)

11. Manpower Requirement - Total about 30 persons are proposed to be hired for plant operations including officers, skilled and unskilled workers.

12. Size and magnitude of Operation - Incinerator With APCD and Continuous Emission monitoring instrument.:- (2 Nos. (1W+1S)) 250 Kg/ hr, Autoclave:-300 kg/batch, Shredder: 300 kg/hr. Effluent Treatment Plant (ETP):10 KLD

An integrated waste management system for treatment of biomedical wastes must look into various stages of the process to complete the operation. These key components in the process of treatment can be broadly classified as stated below:

- ❖ Segregation of Waste at source
- ❖ Waste Collection and Transport
- ❖ Waste Treatment, Storage and Disposal

13. Description of Environment studied within Project site

Air environment - Based on the model simulation result under observed meteorological condition, 24 hours average maximum GLC of PM_{2.5}, PM₁₀, SO₂ and NO_x are predicted to be approximately 0.13501 µg/m³, 0.15424 µg/m³, 0.47097 µg/m³ and 0.86901 µg/m³ respectively and occurs at a distance at about 1700 m from the incinerator source in the south direction for PM and SO₂ but NO_x maximum concentration occurs at location in the in the west direction from the incinerator source location.

Noise Environment - Ambient noise levels were measured at 8 (eight) locations around the proposed project site. Minimum and maximum noise levels recorded during the month of March - 2021 the day time were from 43.1 dB(A) Leq and 62.8 dB(A) Leq respectively and minimum and maximum level of noise during night time were 37.8 dB(A) Leq and 59.1 Leq dB respectively. In the month of April - 2021 Minimum and maximum noise levels recorded in day time as 41.5 dB(A)Leq and 63.6 dB(A) Leq and minimum & maximum level noise levels in night time as 39.1 dB(A) Leq and 58.8 dB (A) Leq, for the month of May - 2021 Minimum and maximum noise levels recorded during day time as 41.4 dB(A) Leq and 63.4 dB(A) Leq and minimum and maximum level noise levels in night time as 38.4 dB(A) Leq and 58.6 dB(A)Leq.

Water Environment

Surface water

However, an analysis result of TDS varies from 137 to 146.0 mg/l. Total Hardness from both the locations is found well within the limit and ranging from 2.5 to 2.8 mg/l. BOD varies from 1.7 mg/l (Upstream) and 1.6 mg/l (downstream).

Ground water

From the results of analysis, pH of the samples was found within the limit and ranging from 7.34 to 7.945 shows that water quality is almost neutral nature. However, an analysis result of

TDS varies from 120.0 to 196.0 mg/l. Total Hardness from all the locations is found well within the limit and ranging from 78 to 124 mg/l.

Soil

The analysis result shows that the soil is slightly Alkaline to moderate Alkaline in nature. NPK values of the solid samples are also good in amount. Therefore, it is inferred that soil quality is nearly good for crop production

Biological Environment

Based on physical survey, interview with local public and forest working plant of the area, total 10 fish species are present or identified nearby area. Almost all the fishes are identified in major rivers. Total 5 amphibians, 3 reptiles, 25 birds and 10 mammal species are found/ identified. All species are not categorized in any conservation status.

14. Waste Treatment and Disposal Scheme - Depending on the category/nature of the waste the following treatment and disposal method are employed according to Biomedical Waste Management Rules 2016.

Solid Waste Management

Wastes will be generated in the form of ash and other residues. Ash will be generated approx. 100 Kg to 150 Kg per day and quantity of other residues generated will be approx. 10 Kg to 20 Kg per day. **Disposal:** Ash residue from high temperature incineration and other material residues from the process shall be collected into containers / bags and shall be stored at temporary ash storage shed and shall be disposed into the secured landfill periodically after sufficient accumulation. All hazardous waste shall be strictly disposed as per Hazardous & Other Waste (Management & Trans-boundary movement) Rule, 2016.

15. The estimated project cost is Rs. 1.8 Crores. Cost towards environmental mitigation measures is predicted to be 25 Lakhs.
16. The Environment consultant **M/s Visiontek Consultancy Services (P) Ltd., Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee 13.04.2022.
17. The SEAC in its meeting held on dated 13.04.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
1.	Conversion of land "to industrial use" and submission of the relevant document thereof from the appropriate revenue authority be submitted.	Relevant document thereof from the appropriate revenue authority regarding Conversion of land "to industrial use" Attached as Annexure-1 .
2.	Dense plantation should be carried out around safety zone/greenbelt taking into consideration direction of wind prevalent in that area.	<ul style="list-style-type: none"> ➤ Total 1.5 Acres area is identified proposed CBWTF. Total 0.649 acre of land shall be used for treatment unit and 0.486 acre (more than 33% of total area) is secured for Green Belt Development. ➤ Major advantage of green belt is development of

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

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		<p>buffer zone and visual barrier for surrounding locality.</p> <p>➤ Local Horticulture/Forest department will be consulted for selection of local plant species</p> <p>Year wise plantation planning and layout is attached as Annexure-2.</p>
3.	Study of inversion of temperature in that area due to project.	<p>Study of Inversion will be effective on Real Time input after the project is commissioning and made operative.</p> <p>So we undertake to make the study and take remedial measures through dense plantation based on the study as and if necessary.</p>
4.	Detailed report on leachate management.	<p>Hazardous chemical sludge will be sent to CHWTSDF site or as per recommendation of Odisha State Pollution Control Board (OSPCB). Regular soil samples will be collected around the area from where sewer line is passing and will be tested for any impact on pH, EC and physical and chemical properties of soils, if any Treated effluent will be used back to the plant process so no discharge on open land will be occur.</p> <p>Precaution should be taken for all liquid and solid waste during storage and transportation so that soils around the site and within 10 Km radius will not be contaminated Record of sludge disposal shall be kept as per Hazardous and Other Waste (Management and Trans boundary) Rules, 2016 and amended thereof.</p> <p>A non-leachate and covered ash pit will be provided inside the CBMWTF for storage of Incineration ash. Ash generated from Incinerators will be approx. 100-150 kg/day & shall be sent to landfill site with intimation to Odisha Pollution Control Committee. 30 lt/month of used oil will be generated from D.G. Set. It is being sold to authorized vendors for the treatment of the same. ETP Sludge of approx. 0.10 kg/day shall be generated from ETP. It will be stored in leak proof PVC containers in isolated areas on pakka floor with in the premises as per HWM Rules and handed over to authorized treatment and disposal facility of Odisha Pollution Control Committee.</p> <p>During installation phase: Total 3 kg/day of waste will be generated from labours- of which 2 Kg/day will be bio degradable and 1 kg/day is non-biodegradable. During installation phase; Bio-degradable wastes shall be disposed of to solid waste disposal site while recyclable non –bio degradable wastes shall be given to approved vendor for final disposal. During operation phase: Total Other residue 10-20 kg/day solid waste will be</p>

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

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		<p>generated. Out of which 7-12 kg/day of Biodegradable waste will be sent to solid waste disposal site 3-8 kg/day of Recyclable Waste shall be given to Authorized Recycler. Autoclaved Plastic & rubber etc. will be sent to Shredder & then from shredder it will be sent to authorize recyclers. Sharps will be treated in autoclave. After autoclaving, sharps will be encapsulated. Glass bottles shall be sold to recyclers after chemical disinfection.</p> <p>Ensure Zero liquid/effluent discharge with no leachate to outside the project.</p>												
5.	Copy of agreement between the operator of any Common Hazardous Waste Treatment and Disposal Facility (CHWTDF) in the State and Project Proponent for disposal of Incinerator Ash.	Certificate for Provisional Membership of Odisha Waste Management Project (A Division of Re Sustainability Limited) is attached as Annexure-3 .												
6.	Provision of STP is essential & to be confirmed with design details.	<p>Water Requirement & Source: The daily fresh water requirement would be 9.5 KLD.</p> <table border="1"> <thead> <tr> <th>Sr. No.</th> <th>Details</th> <th>Consumption (KLD)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Process requirement (Incineration, Cleaning of storage area, Autoclave, Shredder)</td> <td>8.0</td> </tr> <tr> <td>2.</td> <td>Domestic Requirement</td> <td>1.5</td> </tr> <tr> <td>3.</td> <td>Plantation and Greenbelt</td> <td>2.5</td> </tr> </tbody> </table> <p>Requirement of Drinking water will be very minimal quantity i.e 1.5 KLD Quantity of waste will be generate - 1 KLD and it will be Disposed in Soak pit.</p>	Sr. No.	Details	Consumption (KLD)	1.	Process requirement (Incineration, Cleaning of storage area, Autoclave, Shredder)	8.0	2.	Domestic Requirement	1.5	3.	Plantation and Greenbelt	2.5
Sr. No.	Details	Consumption (KLD)												
1.	Process requirement (Incineration, Cleaning of storage area, Autoclave, Shredder)	8.0												
2.	Domestic Requirement	1.5												
3.	Plantation and Greenbelt	2.5												
7.	Dispersion / Inversion study for concentration of pollutants on the ground for Incinerators& DG sets emissions and suitable dense plantations accordingly be submitted.	Dispersion study for concentration of pollutants on the ground for Incinerators& DG sets emissions are attached as Annexure-4 .												
8.	Confirmation for adoption of ISO 18001 be submitted.	We confirm to adopt ISO18001 after the project is made operation.												

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar** on behalf of the

project proponent, the SEAC recommended for grant of Environmental Clearance for the project valid for a period of 10 years with stipulated conditions as per **Annexure – C**.

ITEM NO. 03

PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR KIRLA SAND QUARRY OVER AN AREA OF 10.117 HA FOR PRODUCTION OF 6,179 CUM/ANNUM, AT VILLAGE- KIRLA, TEHSIL: KANTAMAL, DISTRICT: BOUDH OF SRI PRAKASH CHANDRA MEHER- EC

1. Kirla sand bed mining project is located at Village: Kirla, Tehsil: Kantamal & District: Boudh, Odisha over an area of 10.117 Ha. The project has been proposed by Sri Prakash Chandra Meher. The Letter of intent has been issued vide letter no. 2345 on dated 16.10.2020 by Tehsildar, Kantamal for a period of five years. Mining Plan has been approved by Directorate of Geology South zone; Berhampur vide letter no. 819/ SZ dated- 22.06.2020. The proposed production is 6,179 cum /year. The estimated project cost is Rs 50 Lakhs. As per EIA notification 2006 and its subsequent amendment thereof proposed project fall in category B1. **Location:** Khata No. 137, Plot No. 214, Village- Kirla, Tahasil- Kantamal, District-Boudh, State-Odisha. Latitude is 20°48'21.34" to 20°48'31.50" N and Longitude is 83°48'27.29" E to 83°48'40.73"E.
2. Proposed Production – 6179 cum/year of Sand. Railway Station – Bolangir Railway Station is approx 35.10 km towards SW direction. Airport - Biju Patnaik International Airport is approx 218 km towards SE direction. NH-224 is approx 3.40 km in NW direction. Road bridge is Subrnepali over Tel River at a distance of 10.75 Km from lease area in NE direction. Gabajore village is 1.0 km from the proposed area in SE direction. Arjunapur Reserve Forest, approx. 3.7 Km NE, Bairikhaman RF, approx. 6.29 Km SW.
3. **Basic requirements for the project:**
 - i) **Manpower:** About 14 persons will be given employment to the people of nearby villages.
 - ii) **Water:** There is requirement of approx. 8.5 KLD water for this project. 0.2 KLD will be for drinking/domestic purpose which will be abstracted from old ground water source. For other purpose water will be taken from mine.
4. **Mining Method:** Mining will be done by manual method without adoption of drilling & blasting. Since the depth of sand deposit is 1m, excavator, handpicks, spade, hand shovel will be used by laborers for extracting & loading of sand. The proposed mined out areas will gradually get filled up by river sands transported with water from upstream direction. The proposed mined out areas will gradually get filled up by river sands transported with water from upstream direction.
5. **Waste Generation:** This is RBM project not involving waste generation. The sand is directly loaded in trucks/trolleys etc. and sent to markets. Thus, no waste dump sites are needed to such projects.
6. **Baseline Study:** Baseline data on ambient air quality, water quality, noise level, soil, flora and fauna Site-specific meteorological data have been collected for post- monsoon season during October, 2020 to December, 2020.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

7. **Public Hearing:** The public hearing has been conducted on 25.08.2021 at Plot No. 214, Near Kirla Patarphadi of Boudh District, Odisha.
8. **During public hearing all villagers have raised the following issues:**
- Possibility of damage to the river banks & flooding of nearby agricultural land.
 - Pollution due to mining, loading & transportation.
 - They also asked about benefits of projects to villagers.
 - Repair of transportation route.
 - They requested to stop illegal mining
9. Mine manager ensured to the public that mining will be by manual method only upto 1.0 depth. Transportation route & vehicle will be regularly maintained by PP to reduce the chances of accident. Water sprinkling will be done on regular basis to control dust emission & plantation will be carried out along transportation route & in village which act as a sink of the pollutants. Beside this PP will do development works in village under CER budget.
10. **Greenbelt Development:**
- Plantation will be done in mining lease approach road. About 1500 number of trees will be planted along approach road in the first year & at other place after consultation with the local authorities.
11. Estimated cost of the project is ` 50.0 lakh., About 2% of the project cost will be used for the development of the social infrastructure of the area and EMP budget is About ` 7.0 lakhs (Capital), ` 2.6 lakhs (recurring)
12. The project will prove beneficial to the people as the company has already agreed to provide infrastructural facilities to the villagers like educational facilities, medical facilities, Transportation facilities, water supply etc. which will improve the socio-economic environment of the area.
13. The Environment consultant **M/s P&M Solution, C-88, Sector 65, Noida** along with the proponent has made a presentation on the proposal before the Committee on 11.02.2022.
14. The SEAC in its meeting held on dated 11.02.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i.	Since the deposition is 6 times of extraction as per the findings of Replenishment study, Mining plan shall be revised in consonance with the replenishment study carried out so that a balance of extraction and	Approve Modified mining plan with maximum depth of 3meter is prepared consonance with the replenishment study and attached herewith.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	deposition could be achieved. Revised mining plan shall be re-submitted with due approval of Mining Authority and Tahsildar concerned.	
ii.	Justification by Tahasildar why less excavation of sand taking 1 meter depth for mining when there is 6 times more availability of sand than proposed.	As the mining plan is prepared by R.Q.P and approved by authorized officer so, I have no idea on mining method however the replenishment study is done after preparation of mining plan so the availability of sand is not calculated as per the Replenishment study but now the modified mining plan is prepared Replenishment study.
iii.	Since, it is a flood prone area and as raised during public Hearing, river bank erosion to be addressed by stone patching of the river bank with plantation in between and the details with dimensions be submitted in reference to revised Mining plan.	The modified mining plan is prepared with showing the plantation in the lease area. And also and 50 meter safety zone is proposed as noon mining zone throughout the lease area to prevent the river bank crosion.
iv.	Besides, responsibility of haulage road maintenance and dust suppression arrangements be submitted.	all the vehicle used for transportation od sand will be covers with tarpaulin and water sprinkling will be adopted for dust suppression. Only PUC vehicle will be used for transportation.
v.	Permission from concerned BDO be submitted for use of Panchayat/ village road for transportation of minerals.	An NOC from BDO use of Panchayat / village road for transportation of minerals is attached.
vi.	Provision of Bio-toilet and Avenue Plantation be confirmed with details.	Portable Bio-toilet will be deployed during mining activity for the mining workers and staff. Plantation is mentioned in the modified mining plan.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s P&M Solution, C-88, Sector 65, Noida**, the SEAC recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per **Annexure – D** in addition to the following specific conditions.

- i) Revised mining plan shall be prepared based on essential physical criteria as per Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India enclosed as **Annexure - E**.
- ii) Regular replenishment study 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 20.08.2022 (Old proposals – compliance received)

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.
- vi) Based on revised mining plan the proponent to take permission of appropriate authority, if required, in case of change of mining and production plan.

ITEM NO. 04

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

1. M/s Vikash Multi Speciality Hospital aims to expand the existing Hospital from 150 beds to 1050 beds over Chaka Plot No.-1396,1397,1398,1399,3541,3546(P), 3531, 3547, 3551, 3528, 3529, 3549, 3533, 3550, 3533/16270, 3542, 1403, 3560, 3566, 1389, 2113(P), 3558, 1393, 1401, 3560(P), 1395, 1394, 1399, 1400, 3561, 3548, 1402, 1402/3968, 1392,1391 at Barahaguda Canal Chowk, District-Bargarh, Odisha for land measuring 2.32 ha (20.34 acres) or 82,313.06 m².
2. The project falls under category "B" or activity 8 (a)-Building & Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. The site is coming under Bargarh Panchayat. There are total 11 blocks i.e existing Hospital, proposed Hospital Wing-1, Hospital Wing-2, Hospital Wing-3 (Medical College), Hospital Wing-4, Boys Hostel-Block -1, Boys Hostel-Block-2, Girls Hostel-Block -1, Girls Hostel-Block-2, Nurses Hostel, Nurses Quarters.
4. The EC application was submitted online to SEIAA, Odisha on 4th January 2022 vide proposal no. SIA/OR/NCP/249833/2022.
5. The site is adjacent to NH-53 towards North direction. The nearest railway station is Bargarh Railway Station approx. 2.4 km in SW direction from the project site and Veer Surendra Sai Airport, Jharsuguda is at a distance of approx. 73 km in North East direction from the project site.
6. The project has 1 basement and 6 floors (B+G+6). The maximum height of the building will be 23.4 m. The total plot area is 82,313.06 sqm. The permissible ground coverage will be 41,156.53 sqm (50%) and proposed Ground Coverage will be 18,960.00 sqm (23.03%). The permissible FAR will be 4,93,878.36 sqm (@ 6 of plot area) and proposed FAR will be 1,07,573.00 sqm (1.31 of plot area). The non-FAR for the project will be 16,910.00 sqm. Total Basement area will be 10,699.00 sqm. Total Built up area for the project will be 1,24,483.00 sqm. The total population of project after proposed expansion will be 4825 persons.
7. The total water requirement will be 1006 KLD. The total domestic water will be 687 KLD, out of which fresh water requirement is approx. 525 KLD will be met through Ground water and Bore well.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

8. The project will generate approx. 603 KLD of wastewater.
9. The wastewater will be treated in an onsite STP of 560 KLD capacity and ETP of 170 KLD. The treated water (419 KLD @ 90% of total waste water) will be reused for flushing (162 KLD), horticulture (140 KLD) & HVAC Cooling (12 KLD). Surplus treated water during dry season (229 KLD), monsoon season (355 KLD) and winter season (318 KLD) will be discharged to external sewer with the requisite permission. Total 28 RWH pit at different locations will be constructed.
10. Total parking area requirement will be 32,271.9 m² and provision will 33,200 m². And Total Parking i.e. 1,273 ECS will be provided.
11. Power Requirement: The power supply will be supplied by TPCODL, Bhubaneswar City Distribution. The requirement load for the project will be approx. 4200 kVA.
12. Power Backup: Total 7 nos. of DG sets total 3365 kVA (6*500 kVA+1*365 kVA) capacity for power back up in the residential block and the services and annexure block. Silent DG sets (Radiator cooled). Separate generator yard will be constructed for the residential block. The total solid waste generation will be 2355 kg/day. Total green area measures 27,986.5 m² i.e. 34% of the plot area. Tree Plantation area = 18,108.87 m² (22%) + Lawn area = 9,877.56 m² (12%). As per MoEF&CC guidelines, no. of trees required= Plot area/80 sqm. Hence, 82,313.06/80 = 1028.9 say 1029 Nos. Total no. of trees proposed = 1035 no's Total Project cost is INR 262.42 Crores including land and development cost.
13. Vikash Multi Specialty Hospital is an existing hospital at Barahaguda Canal Chowk, District-Bargarh, Odisha with 150 beds (total existing built-up area – 11,148 m²) and aims to expand the same to 1050 beds. Total built-up area will be increased from 11,148 m² to 1,24,483 m² for the proposed expansion.
14. The chronology of the project is as follows:
 - i) They had obtained Consent to Establish vide No.13847/IND-II-NOC-6076, dated 16.10.2017 for construction of Hospital Project of 150 Beds (with total built-up area 11,148 m²) and construction of the project was started after getting Consent to Establish.
 - ii) They also had obtained the provisional Occupancy certificate on 13.10.2017 for B+G+3 and Bio Medical Waste Authorization vide no. 16347/SPCB/Authorization (Bio Medical Waste) dated 19.12.2017 for Generation, Segregation, Collection, storage, packaging, reception, Transportation, Treatment, Recycling, which is valid till 31.03.2022.
 - iii) After completion of the construction of the project, they obtained Consent to Operate vide no. 6618/III-Con (Operate)133/2017-18, dated 14.12.2017 which is valid up to 31.03.2022 for 150 beds to start the operation.
15. The total site area measures 82,313.06 m² (approx. 20.34 acre) and total estimated built-up area is 1,24,483.00 m² and requires Environmental Clearance.
16. The Environment consultant **M/s Grass Roots Research & Creation India (P) Ltd., F-374-375, Sector-63, NOIDA-201301, U.P** along with the proponent has made a presentation on the proposal before the Committee on 31.01.2022.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	<p>Through the proposed source of water is ground water for a quantity of 687 KLD, the PP need to take up suitably with W.R Deptt and explore the possibility of getting river (surface) water from the nearest river located at about 1km away through intake point in the river & pipe line till the project site. In case it is not agreed upon by W.R Deptt, then necessary 'NOC' to be obtained from CGWA for ground water and corresponding permission from W.R Deptt, Govt of Odisha.</p>	<p>We have applied to the Irrigation department, Bargarh Division, Bargarh for drawing water from Danta River. Copy of the same is attached as Annexure-I.</p> <p>We have obtained NOC from CGWA and also have been submitted the application for renewal. Copy of the same is attached as Annexure-II.</p> <p>Undertaking to obtain permission from CGWA for expansion part is attached as Annexure –III.</p>
i)	<p>Existing capacity of ETP & STP with quantity of input to ETP & STP including the source be indicated. So also, the projected estimated quantity of input to STP & ETP including the source be confirmed. Chemical analysis of input to existing ETP & output discharge of the same be submitted. Flow sheet of ETP (existing and proposed) is to be submitted.</p>	<p>The existing details for STP and ETP.</p> <p>The waste water input to ETP=5 KLD ETP capacity =6KLD The waste water input to STP=100 KLD STP capacity=120KLD</p> <p>The post expansion of the project.</p> <p>The waste water input to ETP = 138 KLD ETP capacity = 170 KLD The waste water input to STP = 465 KLD STP capacity = 560 KLD</p> <p>The chemical analysis and flow sheet for technology of ETP is attached as Annexure-IV.</p>
ii)	<p>To confirm that the output discharge from ETP (both existing & proposed) shall not be discharged to the public drain and the re-use of the same (details with estimated calculation) be submitted.</p>	<p>The treated water from ETP will be given to a private water tanker agency for use in other industrial sites / construction activities.</p> <p>An undertaking for the same is attached as Annexure-V.</p>
iii)	<p>Since discharge of treated waste water from STP is too high in the range of 229 KLD</p>	<p>The drain is falling under jurisdiction of Bargarh Panchayat and we have received the permission from the Bargarh Panchayat to discharge the</p>

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	to 355 KLD is a different season, the permission of the outside public drain authority to take this additional load be submitted including storm water (if any).	excess treated water from STP. Copy of the permission and details of drain capacity are attached as Annexure-VI .
iv)	'ROW' of the land connecting the internal drain to the external land in favour of PP be submitted.	The land connecting the internal drain to the external land is in possession of Vikash Hospital. An undertaking for the same is attached as Annexure-V .
v)	<p>273 ECS is stated to have been provision for parking against projected population between about 3000 to 4800 users which is too inadequate and no provision has been made for two wheelers & bicycles. Therefore, parking provision need to be re-visited and re-worked out for which the following suggestions are made:</p> <p>a) Provision of parking of two wheelers adjacent to hospital wings.</p> <p>b) Identifying & demarcating open parking.</p>	<p>Earlier, we had proposed the following parking details:</p> <p>Basement parking = 10,071/32m² = 315 ECS</p> <p>Stilt parking = 6,211/28m² = 222 ECS</p> <p>Surface Parking = 16,918/23m² = 736 ECS</p> <p>Total Parking proposed earlier = 33,200m² = 315+222+736 = 1273 ECS</p> <p>As per SEAC suggestion, we have revised the parking as follows:</p> <p>Basement parking = 10,071/ m² = 315 ECS</p> <p>Stilt parking = 6,211 /28m² = 222 ECS</p> <p>Surface Parking = 19,409/23 m² = 844 ECS</p> <p>Total revised Parking proposed = 35,691 m² = 315+222+844 = 1381 ECS</p> <p>Two Wheeler parking = 70 nos. will be provided near hospital wings.</p> <p>Open parking has been increased from 736 ECS to 844 ECS.</p> <p>Site plan showing the parking is attached as Annexure – VII.</p>
vi)	Provision of incinerator has not been made / proposed. It is desirable to have incinerator of adequate capacity & suitable design and the same be confirmed & submitted.	<p>As per SEAC suggestion, we will provide incineration facility in hospital complying with CPCB norms.</p> <p>An undertaking stating the same is attached as Annexure- VIII.</p>
vii)	No of DG sets with capacity at present & their stack height be confirmed. Since it has been proposed 7 nos. of DG sets of total cumulative capacity of	The Sets location is as per predominant wind direction and there is no sensitive receptor in downwind direction, therefore, incremental GLC will not cause any significant impact. Master plan showing DG location is attached as

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	3365 KVA (6x500 KVA + 1x365 KVA), their location with reference to predominate wind direction and location of the hospital / academic wings, hospital & residential blocks be submitted along with the stack height(s) and installation drawing of the exhaust pipe(s). Besides, emission analysis the stack be submitted including the carbon balance with carbon neutrality (Net Zone) calculation be submitted including the measures.	Annexure-VII. Details of DG stack height and Isopleths are attached as Annexure – VII(a) .
viii)	The report does not contain about the residential block of doctors. The same be submitted.	The residence facility has been provided for the doctors. Master plan showing residence facility for doctors is attached as Annexure – VII.
ix)	Fire Tender Corridor with dimension be indicated & shown in the layout map. Fire safety Certificate for existing hospital setup & Fire safety Recommendations for the proposed expansion be submitted before consideration of EC.	The fire-fighting facilities including road width for movement of Fire tender will be as per NBC 2016 and the same has been shown in the Master plan. Master plan showing the width of road is attached as Annexure-VII. We have received Fire safety certificate from Fire Officer, Northern Range, Sambalpur, Odisha for existing Hospital. Copy of the same is attached as Annexure-IX. We also have applied for NOC to the fire department. We will submit the NOC copy to SEAC/SEIAA Odisha in due course of time. Copy of the application is attached as Annexure-X.
x)	Existing & proposed green belt details with stretch / dimension / trees of plantation & the species shall be submitted.	Total green area = 27,986.5 m ² i.e (34% of the plot area) <ul style="list-style-type: none"> • Plantation area = 18,108.87 m² (22%) • Lawn area = 9,877.56 m² (12%) Green belt width will vary from 3 m to 5 m. No. of trees required = 1 tree /80sq.m of plot area = 82,313.06/80 = 1028.9 say 1029 Nos. Total no. of trees proposed = 1035 no's The trees species proposed are Azadirachta indica, Cassia fistula, Terminalia arjuna, Butea monosperma etc.
xi)	Provision of continuous layer of green belt along the	Landscape plan with continuous green belt along the boundary inner side is attached as

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

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

18. The SEAC in its meeting held on dated 15.03.2022 decided to take decision on the proposal after the site visit by the sub-committee of SEAC.
19. The proposed site was visited by the sub-committee of SEAC on 21.03.2022. Observations of the Sub-Committee of SEAC are as follows:
- (i) As per the documents submitted to SEAC Sub-Committee, the Health and Family Welfare Deptt, Govt of Odisha vide their Letter No.18722 dated 02.07.2021 has granted approval in the name of “Vikash Institute of Medical Sciences and Hospital (VIMSH)”, Bargarh with 150 MBBS intake capacity and 650 bedded teaching hospital subject to approval of NMC and will be regulated by MCI Act -1956.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

State Pollution Control Board, Odisha vide their letter No.13449 Dt-2/9/21 has issued CTE for addition of 900 beds is existing 150 bedded hospital (total bed strength will be 1050) with total built-up area 76,181m² (i, e. additional 65,033m² for addition of 900 beds) in favour of M/s Vikash Multi Specialty Hospital, Bargarh.

With the above fact/background mentioned above, it may be decided as to whether EC will be considered for 650 beds or 800 (150+650) beds or 1050 beds (150+900) under the applicable law /rules.

(ii) Source of Water

With respect to use of river water, as an alternative source instead of ground water for a quantity of 687KLD, the sub-Committee visited the nearest water source viz. "Danta river flowing at a distance of about 1 to 1.5 km from the project site. It was observed that getting water from Danta river is possible through intake point in the river and pipe line till the project site. As such, the PP need to obtain necessary permission from appropriate authority for drawl of water as from the river, installation of intake pump house on the river and laying of pipelines.

(iii) Discharge from ETP & STP: (Existing and proposed):

- (a) As per the PP, the output discharge from existing ETP is being completely used their Nursery located in their premises. Treated output discharge from the existing STP is being channelized for use in their own agricultural fields located at about 05 to 1.0 km from the site and the excess water is discharged to a 'Nala' via the agricultural lands which eventually ends up in Danta river.
- (b) Due to the expansion, the proposal of PP to use/give treated output discharge from ETP to private water Tanker Agency for use in other industrial site /construction activities was not agreed/rejected by the sub-committee .The sub-committee recommended to follow "Zero discharge" policy and suggested that the ETP output discharge should be completely reused inside the project. Premises to which the PP agreed.

As such, the PP shall submit the estimate with calculation for re-use of ETP output discharge inside their premises.
- (c) Regarding discharge of excess waste water from STP on expansion, the PP needs to take permission from the authority of Nala as stated above to take the existing discharge as well as additional discharge due to expansion and explore maximum use inside the premises with increased plantation.
- (d) The NOC Submitted to SEAC sub-committee has been issued by the "Sarpanch" for construction of hospital and discharge of excess treated effluent.
- (e) In case the authority of Nala is Panchayat, then 'NOC' is required to be submitted from the concerned BDO.
- (f) The ETP and STP should not be located under the same housing and must be kept separate from each other. STP & ETP shall be standalone system and shall not be inter-connected or integrated.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

(iv) Parking

The parking site adjacent of the playground was shown by the PP which appeared to be insufficient /inadequate for the projected population of 3000-4800 users. As such, the sub-committee advised the following:

- (a) To increase the parking space identified near the playground and to have multi-storeyed parking provision at the same place to which the PP agreed.
- (b) To have ground floor dedicated for parking in hospital and academic blocks and increase the building height by one or more floors besides parking near hospital wings, provided the building bye-laws permits the same.
- (c) The PP agreed to re-work on (a) and (b) above as submit with layout, drawing and detail calculation thereof for the purpose.

(v) Incinerator

The PP stated that that will have an incinerator but it will be located outside the premises in their land such that the emission from the incinerator will not ingress into the hospital and academic blocks and residential buildings.

The PP shall decide and submit the details with location with respect to the hospital site including the route for transportation of hospital waste from the source to the incinerator.

(vi) DG sets

Since it has been proposed for 07 Nos of DG sets of cumulative capacity of 3365KVA, it was by the sub-committee to explore technical feasibility to inter-connect the stacks/exhaust pipes and reduce the number from 7 to which the PP agreed.

The PP shall submit the location and installation drawing of exhaust pipes of all the DG sets with respect to predominant wind direction and location of hospital wings/OPDs/residential quarters.

(vii) Rainwater Harvesting Structures

There is no Rainwater harvesting pits (RWHP) in the existing hospital. However, the PP committed to have 33 RWHPs on expansion.

(viii) Entry and Exit Gates

The PP will have provision for Entry and Exit gates with pedestrian pathways and shall submit the layout map with appropriate dimensions.

The above observations/views are based on the basis of visit of site condition on physical environmental features and does not cover information/documents sought by SEAC following the presentation made before it.

20. The proponent needs to submit the following as desired by the Sub-Committee of SEAC:

- a) Whether EC will be considered for 650 beds or 800 (150+650) beds or 1050 beds (150+900) under the applicable law /rules.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

- b) PP shall submit the estimate with calculation for re-use of ETP output discharge inside their premises
 - c) The parking site adjacent of the playground was shown by the PP which appeared to be insufficient /inadequate for the projected population of 3000-4800 users. The PP should increase the parking space identified near the playground and to have multi-storeyed parking provision at the same place to which the PP agreed. The PP should have ground floor dedicated for parking in hospital and academic blocks and increase the building height by one or more floors besides the parking near hospital wings, provided the building bye-laws permits the same. Accordingly, the PP should re-work on above and submit detailed layout, drawing and detailed calculation thereof for the purpose.
 - d) Details with location with respect to the hospital site including the route for transportation of hospital waste from the source to the incinerator
 - e) The PP shall submit the location and installation drawing of exhaust pipes of all the DG sets with respect to predominant wind direction and location of hospital wings/OPDs/residential quarters.
 - f) The PP will have provision for Entry and Exit gates with pedestrian pathways and shall submit the layout map with appropriate dimensions.
 - g) Certified Compliance report to conditions of CTE, CTO, authorisation under Bio-Medical Waste from the State Pollution Control Board, Odisha.
 - h) Indicate the location of the Solar Panel fixing Building wise to match the requirement of 5% of the Electricity installed capacity and the matching utilization within the project area.
 - i) Calculation and location of RWHP in the layout plan.
 - j) Provision of a number of Over Head tanks for freshwater as per the head norms and provision of separate Over Head Tanks for treated wastewater to be used in a Dual Plumbing System for Toilet flushing.
 - k) Organogram of a permanent Environment Cell with professionals be submitted. On compliance, it is to be put as a specific condition if EC is recommended.
 - l) The PP shall undertake pollutant dispersion study with outcome at ground level concentration level for all DG sets proposed to be located at one place and the Incinerator & based on the findings of the study, mitigation measures including dense plantation as required shall be adopted.
21. The SEAC in its meeting held on dated 12.04.2022 decided to take decision on the proposal after receipt of information / documents as sought by the Sub-Committee of SEAC at para 20 above. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
1.	Whether EC will be considered for 650 beds or 800 (150+650) beds or	The Environment Clearance is being sought for 1050 beds (150 existing + 900

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	1050 beds (150+900) under the applicable low /rules.	proposed).
2.	PP shall submit the estimate with calculation for re-use of ETP output discharge inside their premises	<p>The Capital cost of ETP will be = 170 Lakhs INR. The feasibility report of ETP is attached as Annexure- I.</p> <p>Since the hospital will operate in aseptic environment, the treated water from ETP will be given to a private water tanker agency for use in other industrial sites/construction activities.</p>
3.	<p>The parking site adjacent of the playground was shown by the PP which appeared to be insufficient /inadequate for the projected population of 3000-4800 users. The PP should increase the parking space identified near the playground and to have multi-storeyed parking provision at the same place to which the PP agreed. The PP should have ground floor dedicated for parking in hospital and academic blocks and increase the building height by one or more floors besides the parking near hospital wings, provided the building bye-laws permits the same. Accordingly, the PP should re-work on above and submit detailed layout, drawing and detailed calculation thereof for the purpose.</p>	<p>The parking required for the project as per Building Bye-laws is: @30% of proposed F.A.R. = $1,07,573.00 \times 30/100$ = 32,271.9 m²</p> <p>Total Parking Area required = 32,271.9 m²</p> <p>As per the suggestion of SEAC during meeting held on 087th Feb., 22, we increased the total proposed parking area from 33,200 sqm (1273 ECS) to 35,691 sqm (1381 ECS).</p> <p>The break-up of proposed parking is:4 Basement parking = 10,071/32 m² = 315 ECS Stilt parking = 6,211/28 m² = 222 ECS Surface Parking = 19,409/23 m² = 844 ECS</p> <p>As suggested by the sub-committee of SEAC, we have increased the surface parking from 19,409 sqm (844 ECS) to 22,214 sqm (966 ECS).</p> <p>Therefore, the total proposed car parking will become = 315 + 222 + 966 ECS = 1503 ECS.</p> <p>The revised parking plan is attached as Annexure – II.</p>
4.	Details with location with respect to the hospital site including the route for transportation of hospital waste from the source to the incinerator	<p>The incineration facility is proposed within the hospital as per suggestion of SEAC members during the meeting held on 18th Feb., 22.</p> <p>Therefore, transportation route is not required as it is within project premises.</p>
5.	The PP shall submit the location and installation drawing of exhaust pipes of all the DG sets with respect to	The location of DG exhaust pipes has been shifted to WSW direction considering the location of hospital

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	predominant wind direction and location of hospital wings/OPDs/residential quarters.	wings/OPDs/residential quarters. The revised DG exhaust pipes location has been marked on the site layout which is enclosed as Annexure – III. The predominant wind direction is North West to South East.
6.	The PP will have provision for Entry and Exit gates with pedestrian pathways and shall submit the layout map with appropriate dimensions.	Site layout has been updated with appropriate dimensions to show entry and exit gates with pedestrian pathways. Copy attached as Annexure - II .
7.	Certified Compliance report to conditions of CTE, CTO, authorization under Bio-Medical Waste from the State Pollution Control Board, Odisha.	We have obtained Certified compliance Report from the State Pollution Control Board, Odisha. Copy attached as Annexure IV .
8.	Indicate the location of the Solar Panel fixing Building wise to match the requirement of 5% of the Electricity installed capacity and the matching utilization within the project area.	Total saving of energy due to solar system is 13% of the electricity installed capacity. Layout & details of proposed on grid & hybrid solar installation in different buildings is attached as Annexure V .
9.	Calculation and location of RWHP in the layout plan.	Calculation of RWH and location of RWHP in the layout plan are attached as Annexure VI & Annexure VII respectively.
10.	Provision of a number of Over Head tanks for freshwater as per the head norms and provision of separate Over Head Tanks for treated wastewater to be used in a Dual Plumbing System for Toilet flushing.	We have provided provision of over Head Tanks for freshwater and provision of separate over Head Tanks for treated wastewater to be used in a Dual Plumbing System for Toilet flushing. Details are given in attached Annexure VIII .
11.	Organogram of a permanent Environment Cell with professionals be submitted. On compliance, it is to be put as a specific condition if EC is recommended.	Organogram of a permanent Environment Cell is given in attached Annexure IX .
12.	The PP shall undertake pollutant dispersion study with outcome at ground level concentration level for all DG sets proposed to be located at one place and the Incinerator & based on the findings of the study, mitigation measures including dense plantation as required shall be adopted.	Pollutant dispersion study with mitigation measures is given in attached Annexure X .

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s Grass Roots Research & Creation India (P) Ltd., F-374-375, Sector-63, NOIDA-201301, U.P.**, the SEAC recommended for grant of Environmental Clearance valid for a period of 10 years with following specific conditions in addition to the conditions as per **Annexure-F**.

- i) All the land kism shall be converted to "Gharabari" before going for construction activity for the project by appropriate revenue authority including that of " SABAK/ HAAL" records as well.
- ii) The sabik RoR shall be compared with the hal RoR for each plot of land involved in the project to ensure that there is no involvement of Forest land or DLC land there after the record of right's kism of land for each and every plot of land should be Gharabari before starting any permanent construction activity of the project.
- iii) Plantation and solar facilities to be implemented as proposed at appropriate time.
- iv) Parking in terms of ECS (4-wheeler, 2-wheeler and bicycles) shall be provided compatible with patients and attending visitors, OPD patients and visitors with them, Doctor's and staffs, nursing sisters and at least 10% floating population in confirmative building by-law/NBC norm/ applicable laws and rules for this kind of project.
- v) The proponent shall operate STP and ETP should not be located under the same housing and should be operated separately as standalone systems and both shall not be inter-connected. ETP outlet effluent shall not be discharged to outside the project premises i.e. "Zero Liquid Discharge" from ETP to outside the premises shall be maintained.
- vi) Under no circumstances, treated waste water discharge from ETP shall be used for dual plumbing for flushing purpose.
- vii) The Decongestion plan as given by the proponent in the traffic density study report shall be implemented for compliance with a definite time frame.
- viii) The proponent shall obtain permission from concerned authority for discharge of surplus treated water of STP only to nearby drain & nallah.
- ix) Permanent Environment Management Cell with environment professionals shall be in place, both for existing and proposed expansion within a definite time frame.
- x) This EC is granted subject to strict compliance by the Authority concerned on the conditions and commitments made by PP.
- xi) This EC granted without prejudice to any order or direction from any court of competent jurisdiction or competent authority under applicable laws including that of any litigation or legal dispute on land (if any).
- xii) The PP and/ or the appropriate authority for the purpose shall comply with all the conditions of EC and if anything is found/ noticed otherwise at any point of time, the EC so granted shall be deemed to have withdrawn/revoked with immediate effect besides levy of penalty or actions as deem fit under applicable laws.
- xiii) The provisions of Energy Conservation Act,2002 with its amendments shall be implemented by Project Proponent while deciding the installation of all types of Electrical,

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Electronic & any other Energy Consuming Equipments in hospital entire project area with the philosophy of Energy Conserved is Energy produced and thus protect environment.

- xiv) The Campus of the project area shall be provided with Pucca Boundary Wall with an intention to Protect the Green Belt, treatment Plants, Energy Conservation Equipments and Biodiversity of the project.
- xv) Under no circumstances, treated waste water discharge from ETP shall be used for agricultural cultivation purpose also. The discharge and out let of ETP (after treatment) to be checked for its safe quality periodically.
- xvi) The proponent shall explore possibility of drawl of water from Danta River with permission from Water Resources Department, Govt. of Odisha.

ITEM NO. 05

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S RIVER FRONT DEVELOPERS PVT. LTD. FOR PROPOSED RESIDENTIAL PROJECT OVER REVENUE PLOT NO. 33(P) & 32(P) OVER AN BUILT-UP AREA OF 32451.07 M² AT MOUZA BIDYADHARPUR, UNDER SECTOR-11, CUTTACK SADAR, TAHASIL – BARANG, DIST – CUTTACK OF SRI MANOJ KUMAR SAHOO – EC

1. This is a proposal of Residential Project [2B+S+G+19 Floors (Block-1) and S+3 Floors + Part Terrace Floor (Block-2) with Community Centre] over Revenue Plot No. 33(P) & 32(P) at Mouza Bidyadharpur under Sector-11, Cuttack Sadar, Odisha of M/s. River Front Developers Pvt. Ltd.
2. The project falls under category “B” or activity 8 (a) Building & Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. M/s River Front Developers Pvt. Ltd. has obtained the land possession about 1.208 Acres. Proposed Built-up area:-32451.07 m² (with basement) and Total Built-up Area- 27317.1 m² (without basement).
4. At present the land is a barren land. The land has been earmarked for construction of residential building as per Plan approved by Cuttack Municipal Corporation.
5. Existing road & railway facility shall be utilized. The site is located close to Cuttack-Naraj-Athagarh Road which connects to Ring Road at Subhash Chandra Bose Square, the Ring Road then connects to NH-5 at Link Road Square (covering a total of 10.5 km by road). The site is approximately 12 km (by road) from Cuttack Railway Station. Only internal roads, paths will be developed for vehicular movements for transportation of construction material during construction phase. So, no new road or rail traffic required during construction or operation.
6. As per plan width of abutting Road or Means of Access proposed 30 meters. 03 (three) numbers of main entrance and exit gates of width minimum 06 meters have been proposed in the plan. The width of the main entrance gate shall not be less than 06 mtrs. The main gate shall fold back against the compound wall of the premises. If the main entrance gate is built over, the height of the same shall not be less than 05 meters. Provisions for access to the building fulfil the requirement as per Regulation-30 and 31 of ODA (P&BS) Rules, 2020. Site is approximately 12 km (by road) from Cuttack Railway Station. Biju Pattanaik International Airport is 0.72 km SE, Chandaka RF – 6.19 km (SSW), Nandankanan Zoo – 9.06 km (S)

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

7. The project falls under seismic zone-III as per IS1893 (Part-1):2002 indicating Moderate to lower damage risk zone. The buildings will be designed as earthquake resistant and comply with the required IS specifications.

8. The project will be developed on the land measuring 4890 Sqmt or 1.208 Ac or 0.488 Ha.

Total Built-up Area – 32451.07 m² (with basement),

Total Built-up Area-27317.1 m² (without basement)

FSI Area: -24405.10 m²

Non FSI Area: - 8045.97 m²

Area considered for block 01 for ground coverage=1621.40 sqm

Area considered for block 02 for ground coverage=308.79 sqm

Total ground coverage area = 1930.19 sqm

Total ground coverage in percentage = 39.47 %

Total parking area provided = (25.59 %) of the far area

No. Of blocks = 2

No. Of floors = block 01 (2 basement + lower ground floor + stilt/upper ground floor + 19 floors)

Block 02 (stilt+3 floors+ part terrace floor),

No. Of dwelling units = 180,

Block 01 Wing-a = 90 flats (4 bhk duplex - 4 nos, 3bhk - 68 nos, 2bhk - 18 nos)

Wing-b = 90 flats (4 bhk duplex - 4 nos, 3bhk - 68 nos, 2bhk - 18 nos)

Block 02 Community Centre with Roof-Top Swimming Pool Required Society Area For 180 Units - 180 Sqm Society Area Provided

In Wing-A Of Block 01 = 94.52 Sqm

Society area provided

In wing-b of block 01 = 96.14 sqm

Total area of society room provided - 190.66 sqm

9. Operational Power for Proposed 2B+(S+G)+19 Multi Storied Residential Apartment Building Plan of M/S River Front Developers Pvt. Ltd., Bhubaneswar over Plot No.:-11-4-6H/1472(P) corresponding to Revenue Plot No. 33(P) & 32(P) of Mouza- Bidyadharpur under Sector 11. Maximum Demand in KW = 1270 KW Or 1411.11 KVA @ 0.9 PF. DG SELECTED=1 no of 500KVA DG sets. Recommended Transformer Capacity= 1500 KVA (500 KVA x 3), 11/0.4 KV Sub-Station with Three Numbers Transformers of 500 KVA Rating. Source is TPCODL (TP CENTRAL ODISHA DISTRIBUTION LIMITED)

10. Water Requirement and management

i) During Construction Stage

For major construction activities daily requirement of water will be 5.0 m³ (peak demand) per day. Water consumption for the Non-resident laborers will be 50 @ 45 lpcd = 2,250 liters. Water consumption for the resident laborers will be 20 @ 70 lpcd =1,400 liters.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Therefore, during the construction phase, total daily water requirement will be 5000 liters + 2250 liters + 1400 liters = 8650 liters = 8.65 m³/day or say 10 KLD. This will be sourced by Private tankers.

ii) During Operation Stage

During operation phase water will be sourced from Public Health Department

Total Fresh Water requirement is 89 m³/day.

Total Flushing Water requirement is 45 m³/day.

Total Water requirement is 134 m³/day (fresh water + flushing water).

Waste water generate is 107 m³/day.

Treated water recovered is 86 m³/day

Reuses of treated water 86 m³/day (during Dry Season) and during monsoon season 20 m³/day of surplus treated waste water discharge to

11. Greenbelt:

- a) The site comprises of approx. 1191.81 sqm of land as a green belt with open space and does not support any ecologically threatened vegetation. However, a multi-layered peripheral greenbelt of native plant species will be developed, which will enhance the aesthetic value of the region and also provide an excellent habitat for various faunal groups.
- b) Total green and open area measures 1191.81 sqm (approx. 24.37% of total area). Trees like Azadirachta indica, Cassia fistula, Terminalia arjuna, Butea monospermic etc. and flowering and ornamental plants have been proposed to be planted inside the premises. Parks will also be developed by the management. The suggested plant species consisting of large trees, small trees and green lands will be planted.

12. The solid waste of the institutional block will be segregated into biodegradable waste and non-biodegradable. Biodegradable waste and non-biodegradable waste will be collected in separate bins. The MSW and recyclable wastes will be handed over to Govt. authorized agency. Proper guidelines for segregation, collection and storage will be prepared as per Municipal Solid Wastes (Management and Handling) Rules, 2000 and amended Rules, 2016. During the operation phase, waste will comprise domestic waste. The solid waste generated from the project shall be mainly MSW (Municipal solid waste) approx. 445.5 kg/day, Following arrangements shall made at the site in accordance to Municipal Solid Wastes (Management and Handling) Rules, 2000 and amended Rules, 2016. The total biodegradable solid waste will be 297 kg/day and total non-biodegradable solid waste will be 149 kg/day. This will be collected in separate coloured bins. Proper waste management practices will be adopted during the collection, storage and disposal of the generated solid waste and construction and demolition waste.

13. Solar Panel sizing (in KW) and Solar Power Generation:

Total Solar Panel to be installed - 5% of the total load i.e. 854KW x 5% = 63.5 KW or say 65 KW (260 Panel of 250Watts Each)

Normaly Energy Generation by 1 KW of Solar Panel per year is :

No of Days per year (365) x No of Sun Hours per day (10) x Number of Sunny Days (40%)

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

= 365 x 10 x 0.4 = 1460 KWH Per Year per KW of Solar Panel
 Therefore Solar Energy Generated Energy per year is
 65 KW x1460 KWH = 94,900 KWH per year.

14. The total project cost is ` 62.32 Cr. EMP Cost: Capital Cost: ` 69.7 Lakh & Recurring Cost=3.1 (In lacs)

15. The Environment consultant **M/s Visiontek Consultancy Services Pvt. Ltd., Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee on 31.01.2022.

16. The SEAC in its meeting held on 31.01.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent followed by site visit of the sub-committee of SEAC.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
vii.	“Kissam” of the land is found to be other than “Gharabari” as per the documents submitted by the PP. As such, it needs to be converted to “Gharabari” before start of the construction work.	Land documents are given in Annexure-1 .
viii.	Fresh water requirement is stated to be 90 KLD & the source is Ground water. Kathajodi River located at a distance of about 620 mtrs from the project site. If it is denied / not agreed to by the authority (s) concerned, then necessary ‘NOC’ from CGWA & permission from W.R deptt, Govt of Odisha to be submitted for drawl of required	Agreed & Complied.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent																																																	
	quantity of ground water.																																																		
ix.	Provision of parking for 195 ECS is too inadequate for 180 dwelling units, besides necessity for provision for parking for two wheelers / Bicycles including for minimum 10% for visitors / floating population. This needs to be revisited and re-submitted accordingly.	<p>Parking provides as per Norms and parking layout with adequate parking provision attached as Annexure-2</p> <p>Block-1(basement-B1) TOTAL CAR PARKING = 49 NOS RESIDENT PARKING = 46 NOS VISITORS PARKING = 3 NOS</p> <p>Block-1(basement-B2) OTAL CAR PARKING = 98 NOS RESIDENT PARKING = 98 NOS</p> <table border="1"> <thead> <tr> <th colspan="7">PARNING DETAIL STATEMENT</th> </tr> <tr> <th>Sl. No</th> <th>FLOOR</th> <th>TOTAL CAR PARKING</th> <th>PARKING FOR RESIDENT</th> <th>PARKING FOR VISITORS</th> <th>PARKING AREA FOR 2 WHEELER</th> <th>PARKING AREA FOR 2 BICYCLE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>BASEMENT B2</td> <td>98</td> <td>98</td> <td>0</td> <td>246 SQM</td> <td>111.07 SQM</td> </tr> <tr> <td>2</td> <td>BASEMENT B1/ LOWER GROUND BLOCK 01</td> <td>49</td> <td>46</td> <td>3</td> <td>47.69 SQM</td> <td>28.18 SQM</td> </tr> <tr> <td>1</td> <td>UPPER GROUND/ UPPER STILT</td> <td>36</td> <td>36</td> <td>0</td> <td>12.62 SQM</td> <td>108.45 SQM</td> </tr> <tr> <td>1</td> <td>LOWER GROUND BLOCK 02</td> <td>14</td> <td>0</td> <td>14</td> <td>24.49 SQM</td> <td>0 SQM</td> </tr> <tr> <td colspan="2">TOTAL</td> <td>197</td> <td>180</td> <td>17</td> <td>330.8 SQM</td> <td>247.7 SQM</td> </tr> </tbody> </table>	PARNING DETAIL STATEMENT							Sl. No	FLOOR	TOTAL CAR PARKING	PARKING FOR RESIDENT	PARKING FOR VISITORS	PARKING AREA FOR 2 WHEELER	PARKING AREA FOR 2 BICYCLE	1	BASEMENT B2	98	98	0	246 SQM	111.07 SQM	2	BASEMENT B1/ LOWER GROUND BLOCK 01	49	46	3	47.69 SQM	28.18 SQM	1	UPPER GROUND/ UPPER STILT	36	36	0	12.62 SQM	108.45 SQM	1	LOWER GROUND BLOCK 02	14	0	14	24.49 SQM	0 SQM	TOTAL		197	180	17	330.8 SQM	247.7 SQM
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x.	Calculation of RWHP (No of recharging pits) be revisited, taking into consideration the highest hourly rain fall based on last 30 years date (logical climate date), Run-off coefficient and retention (hold) time and re-submitted.	Given in Annexure-3.																																																	
xi.	Capacity of STP with quantity of	STP DETAILS ANS SIZE CALCULATIONS :- No. of Flats:-180 No of persons: - 180x5 PERSONS PER FLAT=900																																																	

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	input to STP be indicated.	<p>Floating population = 10% = 90 nos Total population = 990 Provision of fresh water requirement @135 lpcd Quantity of sewer generated considering loss of 10% for cooking and drinking, 5% for floor washing & 5% to be evaporated from wet cloth and kitchen utensils, balance 80% of fresh water to be generated as sewer Quantity of sewer to be generated = $0.8 \times 990 = 792$ lpcd Total quantity of sewerage input to STP = $990 \times 108 = 106920$ ltr (say 107 KLD) The capacity of STP proposed is 135 KLD After treatment, the quantity of treated water = 107 KLD Utilization of treated water:</p> <ol style="list-style-type: none"> Re-use on flushing considering 45 lpcd for population of 990 = $990 \times 45 = 44550$ ltr (say 45 KLD) Use for road washing twice per day = 20 KLD Use for car washing/ cooling of generator = 10 KLD Use for plantation area: Area of plantation = 705.7 Sqm Depth of water required in one watering = 0.025m Considering twice watering in a day for area of 705.7 Sqm Total water requirement for plantation = $705.7 \times 2 \times 0.025 = 35.285$ CUM = 35.285 KLD Total treated water requirement of the project = 110.28 KLD which is greater than anticipated treated water to be generated from STP e.i. 107 KLD <p>Given in Annexure-4.</p>
xii.	To confirm that the output discharge from STP shall not be discharged to the public drain and the re-use of the same (details with estimated calculation) be submitted.	Given in Annexure-4.
xiii.	Fire Tender Corridor with dimension be indicated & shown in the layout map.	Given in Annexure-5.
xiv.	Proposed green belt details with stretch / dimension / trees of plantation & the species be submitted.	Given in Annexure-6. Site plan showing (Trees=63 Nos, 24.37% GREEN AREA PROVIDED=1191.73 SQM(PLOT AREA=4890.37 SQM).

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

18. The proposed site was visited by the sub-committee of SEAC on 16.03.2022. Following are the observations of the sub-committee and proponent needs to submit relevant documents as below:

- a) Certificate of Structural Stability from appropriate authority
- b) Layout map with area and floors of Community Hall with entry and exit and Visitors parking area and no of 2 and 4 wheelers parking provided specific for Community Hall as it is proposed for outsiders use also.
- c) There has to be separate entry and exit for both Residents and Community Hall
- d) NOC for water sourcing authority
- e) Permission from Cuttack Municipality for discharge of extra load of treated water.
- f) Technology to be adopted for sewerage, waste water treatment and provision of Bio waste converter if any (details) to be given
- g) Visitors Parking for Residents (at least 10% of total parking area)
- h) Revised map showing green belt and %
- i) The PP to take adequate safety during construction as residential buildings are there in both sides
- j) Solar calculation details with generation and consumption in-terms of % of total power
- k) Stack height of DG set compared to building height.
- l) To submit the Contour map, Drainage map of the area with marking of the highest level of A Flood line during the last 30 years to access the likely impact on the Building foundation because of the proximity to rivers.
- m) To submit a Disaster management plan as per the Disaster Management Act - 2005 to tackle on-site and off-site Emergencies including evacuation

22. The SEAC in its meeting held on dated 12.04.2022 decided to take decision on the proposal after receipt of information / documents as pointed out at para 18 above. 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						
	Certificate of Structural Stability from appropriate authority	The` Structural stability Certificate has been provided by the registered Structural Engineer “S. P.A. Consultant “ The Structural Design and Drawing prepared by him has been checked and vetted by the IIT Guwahati. The certificate is enclosed. Annexure-1.						
2.	Layout map with area and floors of Community Hall with entry and exit and Visitors parking area and no of 2 and 4 wheelers parking provided specific for Community Hall as it is proposed for outsiders use also.	The layout map is enclosed. The area details of floors of the Community Centre are Enclosed. <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>Floor</td> <td>Area in Sqm</td> <td>Facility proposed</td> </tr> <tr> <td>Stilt</td> <td>413.02</td> <td>parking</td> </tr> </table>	Floor	Area in Sqm	Facility proposed	Stilt	413.02	parking
Floor	Area in Sqm	Facility proposed						
Stilt	413.02	parking						

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent		
		1 st	295.3	Kitchen, dining and toilet block
		2 nd	295.3	Indoor game and Guest room
		3 rd	295.3	Gym and Indoor games
		terrace	26.98	Pool and toilet block
3.	There has to be separate entry and exit for both Residents and Community Hall	<p>No. of 4 wheeler parking – 10 No. of 2 wheeler parking – 17</p> <p>Annexure-2.</p> <p>Separate entry and exit for both Residents and Community Centre has been submitted earlier. However complied drawing showing separate entry and exit for both residential and community center with micro planning and connecting roads are furnished and uploaded.</p> <p>Annexure-3.</p>		
4.	NOC for water sourcing authority	<p>NOC from the water sourcing authority i.e P.H Division, Cuttack has been obtained vide letter no. 4830 dated 19.04.2022 of Superintending Engineer, P.H Division, Cuttack.</p> <p>Annexure- 4 A.</p> <p>The NOC/ Permission from CGWB has been obtained in case of own water supply. The permission of water resources department will be obtained before abstraction of ground water for drinking/domestic purposes. The W/S sample will be tested in government approved laboratory regarding portability of water in every quarter and report will be submitted to Assistant Engineer PHED.</p> <p>Annexure- 4 B.</p>		
5.	Permission from Cuttack Municipality for discharge of extra load of treated water.	<p>NOC from P.H Division, Cuttack has been obtained vide letter no. 4830 dated 19.04.2022 of Superintending Engineer, P.H Division, Cuttack.</p> <p>In case of own sewerage disposal system provision for captive sewerage treatment plant of minimum liquid treatment capacity of 135 cum/day(135 kld of STP) has been made against STP of 27 cum/day as per requirement stipulated in CPHEEO manual as suggested by P.H Division, Cuttack. The discharge of extra load of treated water if appeared will be discharged through existing</p>		

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		underground drainage system which is connected to the natural drain. The map showing existing underground drainage adjacent to the project site is attached as Annexure-5.
6.	Technology to be adopted for sewerage, waste water treatment and provision of Bio waste converter if any (details) to be given	Provision for captive sewerage treatment plant of minimum liquid treatment capacity of 135 cum/day. Technology of the STP-Moving Bed Bio Reactor. Detail design of STP is given in Annexure-6-A Design details of Organic waste converter is attached 6 B
7.	Visitors Parking for Residents (at least 10% of total parking area)	The map showing required resident parking and parking for visitors of residents in all parking floors is furnished showing the area for visitors parking as 799 sqm which is 13.36% of total parking area. Revised Parking plan shown in Annexure- 7.
8.	Revised map showing green belt and %	The revised map showing the green belt, its area and percentage of total land is furnished Land area - 4890.37 sqm Green Belt area – 1004.03 sqm Percentage – 20.5 % Annexure- 8.
9.	The PP to take adequate safety during construction as residential buildings are there in both sides	The temporary protection wall more than the height of the adjacent building on all sides has already been erected to segregate the construction activities within the project area. All environmental measures will be followed not to disturb any of their residents in and around the project by control noise, dust, reflection of light to the minimum as already submitted in original proposal.
10.	Solar calculation details with generation and consumption in terms of % of total power	Solar calculation details with generation and consumption in terms of percentage of total power id furnished. Solar Panel Sizing (In Kw) And Solar Power Generation Total Solar Panel to be installed - 5% of the total load i.e. 854KW x 5% = 63.5 KW or say 65 KW (260 Panel of 250Watts Each) Normally Energy Generation by 1 KW of Solar Panel per year is : No of Days per year (365) x No of Sun Hours per day (10) x Number of Sunny Days (40%) = 365 x 10 x 0.4 = 1460 KWH Per Year per KW of Solar Panel Therefore Solar Energy Generated Energy per year is 65 KW x1460 KWH = 94,900 KWH per year. The drawing showing installation of Solar panels, solar energy capacity, generation and consumption is attached as Annexure-9.
11.	Stack height of DG set compared to building height.	The map showing location of DG set, shaft is furnished. The stack height of the DG set is proposed as 3m above the terrace. Annexure- 10.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
12.	To submit the Contour map, Drainage map of the area with marking of the highest level of A Flood line during the last 30 years to assess the likely impact on the Building foundation because of the proximity to rivers.	To be complied by Vision Tech (Environmental consultant) Highest Flood Level during last 30 Years i.e., 2008 on 20.09.2008 at 12 PM is RL26.700M Dangour Level At Belview Bidanasi Sluice - RL23.600M Contour Map Of 10 Km Radius Buffer Zone Is Attached As Annexure-11.
13.	To submit a Disaster management plan as per the Disaster Management Act - 2005 to tackle on-site and off-site Emergencies including evacuation.	Flood: All residential units has been planned in the project above more than 5m from high flood level in both Kathajodi and Mahanadi river. The basement B2 although planned which is below the high flood level, there is provision of escape from the basement through lift and 2 no. of separate staircases from basement B2 to natural ground level and also to upper floors for vertical escape to residential floors through 2 no. of staircases in each tower. Wind/Cyclone: As per the certificate furnished by the structural engineer duly vetted by IIT Guwahati regarding structural safety, it mentioned that the structural design has been undertaken considering the wind load as prescribed in the NBC for the locality. However in each tower there are 6 no. of lift and 2 no. of staircases for vertical escape and both the towers are connected through Sky bridge in each 15m height through which the escape to ground or to other tower is provided. The travel distance in each tower from the emergency staircase and lift is within prescribed limit as specified in the NBC.

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

- i) “Khatian” (Patta after Mutation) for the entire land from the appropriate Revenue Authority with ‘Kisam’ as Gharabari shall be obtained along with ownership before which construction work shall not start. **The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.**
- ii) **The Proponent shall obtain permission/NOC from Executive Engg (PHD) and / or from the appropriate authority for disposal of Sewage and treated effluent to the nearest drain without which the Proponent will not start construction work. Also in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.**

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

- iii) The proponent shall use solar energy of 5% as proposed.
- iv) To reduce discharge of treated water to open drain, the proponent shall use more water for increased number of trees proposed to be planted in the green belt area & shall also utilize this treated water for car washing, floor washing to minimize the surplus discharge to drain.
- v) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- vi) A full-grown tree is existing on the rear side of the Project boundary which should not be felled and rather to be maintained.
- vii) Structural stability considering HFL shall be taken as the site prone to flood.
- viii) **All the compliances submitted/ committed by PP (s) shall be strictly adhered to by them.**

ITEM NO. 06

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR RAMAPATRAPUT DECORATIVE STONE MINES OVER AN AREA OF 3.680 ACRES OR 1.489 HECATRES AT VILLAGE RAMAPATRAPUT, TAHASIL - BORIGUMMA, DISTRICT - KORAPUT, ODISHA OF SRI PRAMOD KUMAR PANDA - EC

1. The proposal is for Environmental Clearance for Ramapatraput Decorative Stone Mines over an area of 3.680 Acres or 1.489 Hectares at village Ramapatraput, Tahasil - Borigumma, District - Koraput, Odisha of Sri Pramod Kumar Panda.
2. The proposed project as per EIA Notification dated 14th Sept., 2006 and subsequent amendments, falls under Category "B2", Project or Activity 1(a).
3. The licensee has filed an application for the grant of mining lease over the same area of 1.489 hectares or 3.68 Acres. Based on the M. L. application made by the applicant, Department of Steel & Mines, Govt of Odisha have conditionally granted the mines for 20 years & issued the terms & conditions letter, vide letter no.1472/SM-MC2-MC-00032020 S & M, Bhubaneswar, Dt-08.02.2021 with condition obtaining Statutory Clearances including Environmental clearance within 6 months period .
4. The period of obtaining statutory clearances further extended for up to 8.8.2022.
5. The Mining Plan has been approved by the Joint Director of Mines, Directorate of Mines, Bhubaneswar, Odisha under section 2 of Rule 28 (4) of OMMC, 2016 as per clause 5.
6. **Location and Connectivity** - The lease area under reference featured in the Survey of India Topo sheet no. E44E12 is on Khata No 113; Plot No.215. The geo coordinates of the lease area is 19⁰ 04' 36.60"N - 19⁰ 04' 41.20"N and longitude 82⁰ 41'55.00"E to 82⁰ 41' 59.40"E. There is no forest land in the M.L. area. The entire area falls in waste land under the revenue class of "Pahada" of Abada Ajogya Anabadi category. Nearest Highway/ State Highway – SH - 48 at 14.40 km and NH-26 at 16.20km. Nearest railway Station - Maligur at 15.0km. Nearest Major habitation at 0.50km Rampatrapur. Nearest River is Indravati at 12km. The M.L. area under reference represents a hilly terrain with a small hillock. The highest and lowest elevations of the area are 599 mRL in the north-western part and 594 mRL in the south-eastern part of the M.L area respectively. The nearest airport is Bhubaneswar at a distance of 352 Km.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

All types of infrastructure facilities such as water, electricity, education etc. are available at Gumuda within a distance of 3.28Km.

7. **Method Of Mining** - The Rampatraput Decorative Stone Quarry is a Semi mechanized Opencast stone quarry project from which the decorative stone i.e. Charnockite will be excavated. The method of mining is Semi mechanized Opencast mining method and for transportation of minerals Hyva -Tipper shall be engaged. Total working days are 300 days in a year. The excavated Decorative Stone will be sold in domestic market for construction purposes. Total ROM excavated during the proposed Plan period = 5258.00m³. Maximum Production capacity 217 cum/annum with opencast semi-mechanized mining method with stripping ratio 1:026. The ultimate extent and size of the quarry will be 120m x100m. Ultimate pit slope at the time of closure of mine will be around 45⁰
8. **Life of Mine** - Considering the production of Charnockite@ 218.00Cum (Average) per annum Then the life of the mine will be = 24601.00/ 218.00=112 years.
9. **Employment Potential** - 22 nos. of person are to be employed which is of administrative, technical persons, supervisory staffs, skilled and un-skilled workmen to carry out the mining and allied activities.
10. **Water Requirement** - The total water requirement is 5KLD from Govt. water supply through water tanker for different purposes like Domestic, Dust suppression, Mining & Plantation purposes.
11. **Power Requirement** - No electricity connection within ML area. However solar lights will be employed for day to day living purposes. Diesel requirement will be 6000 l/month.
12. **Green Belt** - During Plan Period total 0.836 ha will be degraded; hence it is proposed to plant 900 nos. of saplings during plan period over an area of 0.27 ha.
13. The project cost is Rs 105 Lakhs. EMP Cost is Rs 8.0Lacs. EMP Recurring cost is 7.2 Lakh/Annum. CSR Budget is 8.60 lakh/Annum.
14. The project proponent has made a presentation on the proposal before the Committee on 20.04.2022.
15. The SEAC in its meeting held on dated 20.04.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i.	Dump management with detail calculations of waste utilization / inventory / sale including its chemical composition and safety management of dump to avoid slope failure of dump.	Detail Dump Management Plan with waste utilization is given in Mining Plan. Details of the same is attached herewith as Annexure-1 .
ii.	Water management with details of rain water harvesting, its design & calculation along with zero discharge plan be submitted.	Water Management Plan with details of rain water harvesting is attached in Annexure-2 .

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
iii.	Silt management including procedure for silt management for de-silting of surrounding water body(s) / Agricultural land be submitted.	Details of Silt management plan is given in Annexure-2 .
iv.	Reduction in cutting of tress and promote transplantation of tress on safety zone.	There will be no cutting of trees during the mining operation, however plantation shall be carried out at the safety zone area. An Undertaking is given regarding no cutting of trees is attached in Annexure-3 .
v.	NOC from the concerned BDO for use of Panchayat/ village road for transportation of minerals.	NOC has been obtained from BDO, Boriguma to use the public road for transportation of Decorative Stone from Podapodar Mines. Copy attached in Annexure-4 .
vi.	Certificate from the concerned Mining Officer that there is no other decorative mines within 500 meters from the boundary of the lease area.	Mining Officer has certified in the checklist (Sl. No. 18) that is no other decorative stone mines within 500 meters from the lease boundary area. A copy of the same attached in Annexure-5 .
vii.	Certificate from the concerned DFO that there is no DLC land involved in the lease area.	Certificate regarding DLC land has been obtained from DFO, Koraput involved in the lease area. Copy of the same attached in Annexure -6 .
viii.	In view of the likely revision of DSR for Koraput District in future the details of this Minor Mineral reserve to be ensured in the revised DSR.	I will ensure that the Mineral Reserve will be updated in the revised DSR and necessary amendments & modifications will done in Mining plan, EC, CTE, CTO etc. if required. An Undertaking regarding same is attached in Annexure-7 .
ix.	Due to non-availability of exploration data, increase in production if any to be complied.	I will ensure that the necessary amendments will done in Mining plan, EC, CTE, CTO etc if required any if increase in production. An Undertaking regarding same is attached in Annexure -7 .

Considering the information furnished and the presentation made by the project proponent, the SEAC recommended for grant of Environmental Clearance with stipulated conditions as per **Annexure – H**.

ITEM NO. 07

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR PODAPODAR DECORATIVE STONE MINES OVER AN AREA OF 10.20 ACRES OR 4.128 HECTARES AT VILLAGE - PODAPODAR, TAHASIL - BORIGUMMA, DISTRICT-KORAPUT, ODISHA OF SRI PRAMOD KUMAR PANDA - EC

1. The proposal is for Environmental Clearance for Podapodar Decorative Stone Mines over an area of 10.20 Acres or 4.128 Hectares at village - Podapodar, Tahasil - Borigumma, District-Koraput, Odisha of Sri Pramod Kumar Panda.
2. The proposed project as per EIA Notification dated 14th Sept., 2006 and subsequent amendments, falls under Category "B2", Project or Activity 1(a).

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

3. Prospecting License was granted in favor of Sri Pramod Ku Panda, Sriram Colony, first line, Parabada, Jeypore, Koraput, Odisha-764001 vide letter No 2826 dated 18.02.2016 and PL deed executed on 21st May, 2016.
4. Based on prospecting report the mining lease was LOI issued in favour of Sri Pramod Ku Panda for a period of 20 years by Dept. of Steel & Mines vide letter no. 1476/SM-MC2-MC-0003-2020 S & M, Bhubaneswar, Dt. 08. 02. 2021 with condition obtaining Statutory Clearances including Environmental clearance within 6 months period.
5. Further a period of six months has been extended vide letter no. 1476/SM-MC2-MC-0004-2021 S & M, Bhubaneswar, Dt. 25. 11. 2021.
6. The Mining Plan along with PMCP has been approved by the Addl. Director of Mines, Office of Directorate of Mines, Bhubaneswar, Odisha under section 2 of Rule 28 (4) of OMMC, 2016 as per clause 5 on 08.12.2021
7. **Location and Connectivity** - The mining lease area comes under the Survey of Indian Topo sheet No. E44 E12. It is bounded by the latitude N 19⁰04' 59.9" to N 19⁰ 05' 19.2" and longitude E 82⁰ 41'23.3" to E82⁰ 41' 29.5". There is no forest land in the M.L. area. The entire area falls in waste land under the revenue class of "Pahada" of Abada Ajogya Anabadi category. Nearest Highway/ State Highway – SH - 48 at 14.84 km and NH-26 at 15.06km. Nearest railway Station - Maligur at 15.3km. Nearest Major habitation at 0.71km Podapadar. Nearest River is Indravati at 13km. The M.L. area under reference represents a hilly terrain with a small hillock. The highest and lowest elevations of the area are 606 mRL in the north-western part and 594 mRL in the south-eastern part of the M.L area respectively. The nearest airport is Bhubaneswar at a distance of 353 Km. All types of infrastructure facilities such as water, electricity, education etc. are available at Gumuda within a distance of 4.4Km.
8. **Method Of Mining** - The Podapodar Decorative Stone Quarry is a Semi mechanized Opencast stone quarry project from which the decorative stone i.e. Charnockite will be excavated. The method of mining is Semi mechanized Open cast mining method and for transportation of minerals Hyva -Tipper shall be engaged. Total working days are 300 days in a year. The excavated Decorative Stone will be sold in domestic market for construction purposes. Total mineable quantity in the M.L. area = 69832.00cum. Total ROM excavated during the proposed Plan period = 13550.00 m³. Maximum Production capacity 600 cum/annum with opencast semi-mechanized mining method with stripping ratio 1:4.The ultimate extent and size of the quarry will be 520m x48m. Ultimate pit slope at the time of closure of mine will be around 45⁰
9. **Life of Mine** - Considering the production of Charnockite @ 600.00Cum (Average) per annum Then the life of the mine will be = 69832.00/600= 116 years.
10. **Employment Potential** - 22 nos. of person are to be employed which is of administrative, technical persons, supervisory staffs, skilled and un-skilled workmen to carry out the mining and allied activities.
11. **Water Requirement** - The total water requirement is 9KLD from Govt. water supply through water tanker for different purposes like Domestic, Dust suppression, Mining & Plantation purposes.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

12. **Power Requirement** - No electric power shall be required for operations as the equipments to be used in mining will be operated by Diesel and operation will be done in day time only. Minimal power required for lighting during night time. It is estimated 100 KVA of electricity shall be required for same purpose and shall be taken from the State Grid. Necessary permission shall be taken after commencement of the project. Diesel will be used for running of equipments during mining operation. It is estimated that 1 KLD of diesel will be required and same shall be procured from local pump station.
13. **Green Belt** - During Plan Period total 1.988 ha will be degraded; hence it is proposed to plant 1500 nos. of saplings during plan period over an area of 0.66 ha.
14. The project cost is Rs 120 Lakhs. EMP Cost is Rs 8.0Lacs. EMP Recurring cost is 7.2 Lakh/Annum. CSR Budget is 8.60 lakh/Annum.
15. The project proponent has made a presentation on the proposal before the Committee on 20.04.2022.
16. The SEAC in its meeting held on dated 20.04.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
1.	Dump management with detail calculations of waste utilization / inventory / sale including its chemical composition and safety management of dump to avoid slope failure of dump.	Detail plan for dump management with waste utilization is given in Mining Plan .Detail plan on same is attached as Annexure-1.
2.	Water management with details of rain water harvesting, its design & calculation along with zero discharge plan be submitted.	Water management with details of rain water harvesting is attached as Annexure-2.
3.	Silt management including procedure for silt management for de-silting of surrounding water body(s) / Agricultural land be submitted.	Detail plan for silt management given in attached plan Annexure-2.
4.	Reduction in cutting of tress and promote transplantation of tress on safety zone.	There will be no tree cutting during mining operation; however plantation shall be carried out at safety zone .Undertaking regarding no tree cutting attached as Annexure-3.
5.	NOC from the concerned BDO for use of Panchayat/ village road for transportation of minerals.	NOC has been obtained from BDO, Borigumma to use the public road for transportation of minerals. Copy attached as Annexure-4.
6.	Certificate from the concerned Mining Officer that there is no other decorative mines within 500 meters from the boundary of the lease area.	Mining Officer has declared that is no other decorative stone mines within 500 meters from the boundary of lease area in the checklist (sln018).Copy attached as Annexure-5.
7.	Certificate from the concerned DFO that there is no DLC land involved in	Certificate regarding no DLC land involved in the lease area has been issued by DFO,

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	the lease area.	Koraput. Copy attached as Annexure-6.
8.	In view of the likely revision of DSR for Koraput District in future the details of this Minor Mineral reserve to be ensured in the revised DSR.	I will ensure the mineral reserve as per the revised DSR and necessary amendment will be done in Mining plan, EC, CTE, CTO if required. Undertaking regarding same is attached as Annexure-7.
9.	Due to non-availability of exploration data, increase in production if any to be complied.	I will ensure necessary amendment will be done in Mining plan, EC, CTE, CTO if increase in production. Undertaking regarding same is attached as Annexure-7.

Considering the information furnished and the presentation made by the project proponent, the SEAC recommended for grant of Environmental Clearance with stipulated conditions as per **Annexure – H.**

ITEM NO. 08

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S SHREE RAM CONSTRUCTION FOR COMMERCIAL BUILDING & MIG RESIDENTIAL APARTMENT (B+S+12) OVER TOTAL BUILT-UP AREA OF 33,841.83 SQM LOCATED AT MOUZA – PADMALAVA NAGAR, TAHASIL - BRANGA, PS - CUTTACK SADAR, CUTTACK, ODISHA OF SRI VINIT SETHIA – EC

1. The proposal is for Environmental Clearance of M/s Shree Ram Construction for commercial building & MIG Residential Apartment (B+S+12) over total built-up area of 33,841.83 sqm located at Mouza – Padmalava Nagar, Tahasil - Branga, PS - Cuttack Sadar, Cuttack, Odisha.
2. The project falls under category “B” or activity 8 (a)-Building & Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. M/s Shree Ram Construction has awarded for development of commercial building & MIG Residential Apartment (B+S+12) At Mouza –Padmalava Nagar, Tahasil: Barang, PS: Cuttack Sadar, Cuttack, Odisha. In 7003.6 sqm of land at Plot No.: 301, 302, 308/1886, 308/1889, 308/1900, 308/1896, 308/1901, Khata No. 170/1153, 170/1152, 170/1145, 170/1144, 170/1146, 170/1164, 170/1147.
4. **Location and Connectivity** - The proposed site is located at at Mouza–Padmalava Nagar, Tahasil: Barang, PS: Cuttack Sadar, Cuttack, Odisha. The Geographical co-ordinates of the project site is Latitude 20°27’03.30”N, 20°27’01.60”N, 20°27’01.50”N, 20°27’01.11”N, 20°27’01.17”N, 20°26’59.88”N, 20°27’00.50”N, 20°27’01.76”N, 20°27’02.78”N, 20°26’03.14”N & Longitude 85°48’57.61”E, 85°48’55.81”E, 85°48’55.61”E, 85°48’55.51”E, 85°48’55.09”E , 85°48’54.57”E, 85°48’52.41”E, 85°48’53.08”E, 85°48’53.51”E and 85°48’53.73”E. The area comes under Survey of India Toposheet No.-F45T10, F5T11, F45T14 & F45T15. The project site is well connected with Banki-Cuttack Road; National Highway-16 is at the distance of 0.1 km from the project site. The nearest Railway station is Baranga Railway Station which is 1.7 Km from the project site. The nearest airport is Biju Patnaik International Airport at a distance of approximately 22.44 Km from project site. The site is located adjacent to the local landmarks such as Nandankanan, Dadhapatna, etc. There is no structure or encroachments on the site. The site is easily accessible from Banki-Cuttack Road.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

5. The Building Details of The Project:

Particular	Proposed	Permissible
Project Name	Proposed commercial building & MIG Residential Apartment (B+S+12) for Shree Ram Construction.	
Locations	At Mouza –Padmalava Nagar, Tahasil: Barang, PS: Cuttack Sadar, Cuttack, Odisha- 754005	
Plot Area	7003.6 Sqm or 1.7306 AC. Net Plot Area: 6799.14 Sqm	--
Ground Coverage	2453.8 Sqm (0.36 % of plot area)	--
Total Built up Area	33841.83 sqm	--
Total FAR Area	25972.08 sqm	--
Maximum Height	39.3mtr	--
Road & Paved Area	2985.52 Sqm	--
Basement Parking	3776.7 sqm	--
Stilt Parking	3201.68 sqm	--
Parking Area	6978.38 sqm (Basement Parking+ Stilt floor parking)	6666.72 sqm
Green Belt Area	1427.82 sqm (21 % of Plot area)	1359.8 Sqm (20 % of Plot area)
Power/Electricity Requirement & Sources	Total: 1126 KW TPCODL	--
No. of DG sets	(2 x 500) KVA	--
Fresh Water requirement & Sources	136.89 KLD(Fresh) Source: Ground Water	--
Sewage Treatment & Disposal	STP Capacity - 200 KLD	--
Estimated Population- Residential, Floating/visitors	Residential: 1368 nos. Floating/visitors: 136 nos Commercial: 323 nos.	--

- Power requirement:** The daily power requirement for the proposed project is preliminarily assessed as 1126 KW source from TPCODL of Odisha State Electricity Board. In order to meet emergency power requirements during the grid failure, there is provision of 2 nos. of DG set having (500 x 2) KVA capacities for power back up in the Housing Project.
- Water requirement:** During the construction phase, total daily water requirement will be = 23230 liters /23.23 m³/day. This will be sourced by Private tankers. During operation phase water will be sourced from Ground Water. Total fresh water requirement will be 136.89 KLD.
- Firefighting Installations:** Firefighting system will be installed as per recommendation of the Firefighting Officer, Odisha and as per the guideline of NBC (part-4).
- Green Belt Development:** Green belt will be developed over an area of 1427.82 Sqm (21 %) of the plot area; by using the local species like Radhachuda, Nageswar, Akash Neem, Ashok, Polanga, Karang, Bela, Pijilu, Kaniara, Tagar, Hena, etc.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

10. **Solid Waste Management:** From the proposed private Housing project solid waste in form of food wastes from kitchen and miscellaneous wastes will be generated @ 0.45 kg/person/day, which will be about 615.6 kg/day and waste generated from the commercial will be @0.15 kg/day, which will be 48.45 kg/day. The waste generated from floating population in residents will be @ 0.15 kg/day, which will be 20.4 kg/day.

Sl. No.	Category	Counts (heads)	Waste generated
1.	Residents	1368 @ 0.45 kg/day	615.6 kg/day
2.	Commercial population (including Floating Population)	323 @ 0.15 kg/day	48.45 kg/day
3.	Floating population in residents	136 @ 0.15 kg/day	20.4 kg/day
4.	STP sludge		87.26 kg/day
Total Solid Waste Generated			771.71 kg/day

11. The estimated project cost is ` 61 Crores and cost for EMP is 3.05 crores.
12. The project proponent along with the consultant **M/s Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar** made a detailed presentation on the proposal on 20.04.2022.
13. The SEAC in its meeting held on dated 20.04.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent followed by visit of the sub-committee of SEAC to the site. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
1.	Internal drain network with dimensions and layout plan be submitted with its connectivity to existing drain after treatment including permission from authority to take the additional load.	Layout Plan showing internal drain network line with dimension which is connected to main drain is attached in Annexure-1 . Drainage permission is obtained from Madaspur Gram Panchayat Office vide letter no. 60, dated 08.12.2021. Drainage permission letter is attached in Annexure-2 .
2.	Solar calculation details with generation and consumption in terms of % of total power.	Total power generation from Solar system is 63.33 KW through 29 nos. of PV Panels & 46 nos. of Solar Street Lighting. Total power demand of the proposed building is 1126.0 KW. So total solar power generation from the proposed building is 5.6% of total power demand. Details solar calculation is attached in Annexure-3 .
3.	“Kissam” of the land is found to be other than “Gharabari” as per the documents submitted by the PP. As such, it needs to be converted to “Gharabari” before start of the construction work.	Total land area of the proposed project is 7003.6 Sqm and the kism of land is Gharabari. All plots have been converted to Gharabari. Detail Land documents with Kissam of Land are attached in Annexure-4 .

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
4.	Fresh water requirement is stated to be Ground water. Possibility to availing river (supply) water to be explored. If it is denied by the authority (s) concerned, then necessary 'NOC' from CGWA & permission from W.R deptt, Govt of Odisha to be submitted for drawl of required quantity of ground water.	The Public water supply is not available in the vicinity of the project area; once the public water supply is available the permission will be obtained from Public Health Division (PHD). The letter from Madaspur Gram Panchayat Office regarding Non-availability of Public Water Supply is attached in Annexure-5 . Ground Water permission has been obtained from CGWA vide NoC No. CGWA/NOC/INF/ORIG/2022/15505, dated 17.05.2022. Ground Water Clearance copy is attached in Annexure-6 .
5.	Provision of parking for four wheelers, two wheelers / Bicycles including for visitors / floating population to be submitted with parking layout drawing showing separate parking and separate entry and exit gates for commercial and residential respectively.	Total parking area provided for the Residential building is 6515.19 sqm and ECS provided for the residential building is 239 nos. of 4 Wheelers & 310 nos. of 2 Wheelers including bicycles. Total parking area provided for the Commercial building is 463.19 sqm and ECS provided for the commercial building is 08 nos. of 4 Wheelers & 10 nos. of 2 Wheelers Parking. Separate Entry & Exit is provided for Residential building and Separate Entry & Exit is provided from commercial building. Layout showing 4 wheelers & 2 wheelers parking and Separate Entry/Exit for Residential & Commercial building is attached in Annexure-7 .
6.	Traffic study report at intersecting points to be submitted.	Traffic Study Report has been vetted by Indian Institute of Technology, Bhubaneswar. Traffic study Report is attached in Annexure-8 .
7.	DG set location need to be changed according to prevailing wind direction.	The predominant wind direction of the proposed project area is South and the DG set will be installed as wind flow from South to North. The DG Set position is marked in the layout with respect to predominant wind direction. The height of the DG Set stack is 44m which is 4.5m above from highest point of the building. Layout Plan showing DG Set location is attached in Annexure-9 .
8.	Recalculate and resubmit the rain water to be harvested.	Rain water harvesting pits (RWHP) has been calculated as per 30 years Rainfall data (1988-2021), as per 30 years data maximum rainfall is 330 mm/day and hourly rainfall is 33 mm/hr. So total rain water available for recharging is 149m ³ /hr and total 5 nos. of rain water harvesting pits has been provided for ground water recharging. Detail calculation is given in Annexure-10 .
9.	Structure stability certificate to be submitted from the	Structural Stability permission from the appropriate authorities will be obtained prior

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	appropriate authority.	to the Occupation Certificate.
10.	Ownership or permission (in case of Govt land) of revenue land/plots where the drain will be laid down by PP to connect to municipality drain to be submitted.	Details drainage Plan is attached in Annexure-11 .
11.	Basis of STP capacity arrived at be submitted.	Total waste water generated of the proposed project is 160.63 KLD and the STP capacity is 20% more than of generated waste water which is 200 KLD. Details calculation is attached in Annexure-12 .
12.	Basis of arriving population for residents, visitors and commercial complex be submitted and accordingly, water balance be submitted.	Detail population calculation for Residents, Visitor & Commercial and Water Balance during Non-Monsoon & Monsoon Season is attached in Annexure-12 .
13.	Parking in terms of ECS was communicated as wrong during presentation and as such, needs to be revised & resubmitted.	Details parking calculation with ECS for the proposed building is attached in Annexure-13 .
14.	RWHPs have been calculated based on maximum hourly rainfall of 80mm/ hr which needs to be revised based on 30 years meteorological data for maximum rain fall.	Rain water harvesting pits (RWHP) has been calculated as per 30 years Rainfall data (1988-2021), as per 30 years data maximum rainfall is 330 mm/day and hourly rainfall is 33 mm/hr. So total rain water available for recharging is 149m ³ /hr and total 5 nos. of rain water harvesting pits has been provided for ground water recharging. Detail calculation is given in Annexure-10 .
15.	Kissam of land in sabik and hal revenue record be submitted.	The Kissam of land of the proposed building project is Gharabari. Detail Land documents with Kissam of Land are attached in Annexure-4 .
16.	Fire safety recommendation letter of State Fire services Department be obtained and submitted.	The Fire Safety Clearance has been recommended by Odisha Fire Services vide recommendation letter no. RECOMM1101020042021000385, dated 24.12.2021. Recommendation letter is attached in Annexure-14 .
17.	Provision of Lift with light, Ventilation, Air blowers and Fire safety measures from lowest basement to terrace top roof be submitted in view of Safety and Environment health of users.	Light, Ventilation and Air Blowers is provided in the Lift from Lower Basement to Terrace Top Roof.
18.	Detail water circuit from drawl (Source) with WTP to overhead tank storage with capacity supply to Apartments, Treatment in STP and Waste water	Water Treatment Plant (WTP) will be provided for the proposed building to overhead tank. Total waste water generated of the proposed project is 160.63 KLD and the STP capacity is 20% more than of generated waste water

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	treatment facility, overhead tank for waste water storage for used in Toilet through dual plumbing system be submitted.	which is 200 KLD. Also dual Plumbing system is provided in the proposed building.

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 – I** in addition to the following specific conditions.

- i) “Khatian” (Patta after Mutation) for the entire land from the appropriate Revenue Authority with ‘Kisam’ as Gharabari shall be obtained along with ownership before which construction work shall not start. **The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.**
- ii) **The Proponent shall obtain permission/NOC from Executive Engg (PHD) and / or from the appropriate authority for disposal of Sewage and treated effluent to the nearest drain without which the Proponent will not start construction work. Also in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.**
- iii) The proponent shall use solar energy of 5% as proposed.
- iv) To reduce discharge of treated water to open drain, the proponent shall use more water for increased number of trees proposed to be planted in the green belt area & shall also utilize this treated water for car washing, floor washing to minimize the surplus discharge to drain.
- v) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- vi) **All the compliances submitted/ committed by PP (s) shall be strictly adhered to by them.**

However, the Sub-Committee of SEAC will visit the site within 3 months from the date of issue of Environmental Clearance to verify the progress of the project as well as conditions stipulated in Environmental Clearance. However, either during the visit of the SEAC Sub-committee and/or at any time, if it is noticed that stipulated conditions on which EC is granted is not in place or found otherwise, steps will be taken for revocation of EC granted.

ITEM NO. 09

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S MOTWANI CONSTRUCTIONS PVT. LTD. FOR RESIDENTIAL BUILDING PROJECT (S1+S2+S3+18) OVER AN BUILT UP AREA 72498.42 SQM., LOCATED AT MOUZA - KORADAKANTA AND JHARPADA, TAHASIL - BHUBANESWAR, DIST - KHORDHA OF SRI PANKAJ MOTWANI (DIRECTOR) – EC

1. The proposal is for Environmental Clearance of M/s Motwani Constructions Pvt. Ltd. for Residential Building Project (S1+S2+S3+18) over an built up area 72498.42 sqm., located at

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Mouza - Koradakanta and Jharpada, Tahasil -Bhubaneswar, Dist - Khordha of Sri Pankaj Motwani (Director).

2. The project falls under category "B" or activity 8 (a)-Building & Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. The proposed project is a multistoried Residential Apartment Building comprising of S1+S2+S3+18 floors over an area of 12677.33 Sq.m or 3.131.5 Acres.
4. The proposed project site is located at Plot No- 566(P), 295 (P), 294 (P), Khata No- 459/382, 106, 99 in Mouza- Koradakanta and Plot No-2182(P), Khata No- 920 in Mouza- Jharapada of Khordha district, Odisha.
5. **Location and Connectivity** - The Project Site is a part of the Survey of India Toposheet No. 73H/15 & 73H/16. The geographical co-ordinates of proposed project site is bounded between Latitude 20°16'49.04"N to 20°16' 47.06"N and Longitude 85° 52' 27.21" N to 85° 52' 27.32" E. Nearest Railway station at 3.7km and nearest airport is Biju Pattnaik International Airport at 7km. Nearest town is Bhubaneswar at 6km. Nearest NH is NH-203 – 90m, and SH is SH-60 – 8km. The project is at a distance of 29km from Khordha district, 1.45km from Jharpada and 70m from Koradakanta.

6. **The Building Details of The Project:**

Parameters	Description
Plot Area	12906.06 sq meter
Plot No.	566(P), 295 (P), 294 (P), Khata No- 459/382, 106, 99in Mouza- Koradakanta and Plot No-2182(P), Khata No- 920
Project Cost	INR 120 Crores
Built-up Area	72498.42 m ²
Green Area (19.29%)	2490.00 m ²
Population	1863
Water Requirement	225 KLD
Fresh Water Requirement	149 KLD
Wastewater Generation	195 KLD
STP Capacity	300 KLD
RWH pits	10 pits
Total Municipal Waste	960 kg/day
Power Requirement	3023.75 KW
DG Sets	2 no. of DG sets of 200 & 250 KVA each

7. **Power requirement:** The connected power load is 2835 KVA. Total 2 no. of DG set of total

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

capacity 450 kVA (200 KVA + 250 KVA) will be installed as power back up.

8. **Water requirement:** Total Domestic water requirement is 225 KLD. Fresh water requirement is 149 KLD. The waste water generation is about 195 KLD and capacity of STP is about 300 KLD. Treated water from STP will be used for flushing, Fire Fighting, DG cooling and horticulture purpose and rest will be used in Swimming pool make-up water, Car washing/Nearby construction site or discharge to municipal sewer line.
9. **Fire fighting Installations:** Fire fighting system will be installed as per recommendation of the Fire fighting Officer, Odisha and as per the guideline of NBC (part-4).
10. **Parking** - Adequate parking space of 14400.20 m² is provided for operational phase to the residents and visitors.
11. Total of 10 Nos. of Rain Water Harvesting pits are proposed for artificial ground water recharge.
12. **Solid Waste Management:** Total solid waste generation is 960 kg/day. The solid waste will be segregated at source & collected. Adequate number of colored bins (green, white & Black) separate for bio-degradable, non-biodegradable and Hazardous waste are proposed to be provided at the strategic location within site. Bio-degradable (will be composted through organic waste converter). Recyclable wastes will be disposed to govt. or SPCB approved third party vendors. Dewatered sludge can be buried underground in a sanitary landfill. It also may be spread on agricultural land in order to make use of its value as a soil conditioner and fertilizer. The Hazardous waste generated will be managed as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016. Horticultural Waste is composted and used for gardening purposes.

Sl. No.	Description	Occupancy	Waste Generated (Kg per capita / day)	Waste Generated (kg/capita/day)
1.	No. of Persons	1863	0.5 kg/day	931.5
2.	Horticultural Waste (approx.. 0.615 acres)	@ 0.2 kg/acre/day		0.123
3.	STP Sludge	Waste water x 0.35 x B.O.D difference/1000		27.3
Total Solid Waste Generation = 958.92 say 960 kg/day				

13. The estimated project cost is ` 120 Crores and cost for EMP is ` 104 lakhs.
14. The project proponent along with the consultant **M/s. P and M Solutions, Noida, UP** made a detailed presentation on the proposal on 20.04.2022.
15. The SEAC in its meeting held on dated 20.04.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent followed by visit of the sub-committee of SEAC to the site. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	Layout of project site in google map clearly showing	Refer Annexure II

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	the distance from all sensitive places.	
2.	Layout map showing project details like greenbelt, DG sets, parking, STP location, RWH pits etc. Also, green belt details with calculation and stretch / dimension / trees of plantation & the species.	For layout plan Refer Annexure I and for green belt details Refer Annexure- V, VI
3.	Provision of parking is too inadequate, besides necessity for provision for parking for two wheelers / Bicycles including for visitors / floating population. This needs to be revisited and re-submitted with details layout drawing.	Refer Annexure I
4.	Internal drain network with layout to be submitted along with dimensions and its connectivity to final existing drain after treatment along with permission of the authority to take the additional load to be discharged.	Refer Annexure IX
5.	Solar calculation details with generation and consumption interms of % of total power	Refer Annexure
6.	“Kissam” of the land is found to be other than “Gharabari” as per the documents submitted by the PP. As such, it needs to be converted to “Gharabari” before start of the construction work.	Refer Annexure - XII
7.	Fresh water requirement is stated to be Ground water. Provision for supply water/ PHED water try to avail for the project to be explored. If it is denied / not agreed to by the authority (s) concerned, then necessary ‘NOC’ from CGWA & permission from W.R depts, Govt of Odisha to be submitted for drawl of required quantity of ground water.	Refer Annexure - III
8.	Structural Stability certificate to be submitted from appropriate authority.	Refer Annexure - XI
9.	pH of water to be reanalyzed and submitted from a Govt Laboratory about its portability.	Refer Annexure
10.	Traffic study at major intersecting points to public roads to be submitted from an institute of repute.	Refer Annexure - X
11.	Increase in greenbelt to reduce lesser amount of water discharge to drain.	Refer Annexure
12.	Kissam of land in sabik and hal revenue record be submitted.	Refer Annexure - XII
13.	Fire safety recommendation letter of State Fire services Department be obtained and submitted.	Refer Annexure - IV
14.	Provision of Lift with light, Ventilation, Air blowers and Fire safety measures from lowest basement to terrace top roof be submitted in view of Safety and Environment health of users.	Refer Annexure - I
15.	Detail water circuit from drawl (Source) with WTP to overhead tank storage with capacity supply to Apartments, Treatment in STP and Waste water treatment facility, overhead tank for waste water storage for used in Toilet through dual plumbing system be submitted.	

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Considering the information furnished and the presentation made by the consultant, **M/s. P and M Solutions, Noida, UP** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – J** in addition to the following specific conditions.

- i) “Khatian” (Patta after Mutation) for the entire land from the appropriate Revenue Authority with ‘Kisam’ as Gharabari shall be obtained along with ownership before which construction work shall not start. **The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.**
- ii) **The Proponent shall obtain permission/NOC from Executive Engg (PHD) and / or from the appropriate authority for disposal of Sewage and treated effluent to the nearest drain without which the Proponent will not start construction work. Also in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.**
- iii) The proponent shall use solar energy of 5% as proposed.
- iv) To reduce discharge of treated water to open drain, the proponent shall use more water for increased number of trees proposed to be planted in the green belt area & shall also utilize this treated water for car washing, floor washing to minimize the surplus discharge to drain.
- v) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- vi) **All the compliances submitted/ committed by PP (s) shall be strictly adhered to by them.**

However, the Sub-Committee of SEAC will visit the site within 3 months from the date of issue of Environmental Clearance to verify the progress of the project as well as conditions stipulated in Environmental Clearance. However, either during the visit of the SEAC Sub-committee and/or at any time, if it is noticed that stipulated conditions on which EC is granted is not in place or found otherwise, steps will be taken for revocation of EC granted.

ITEM NO. 10

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S EVOS BUILDCON PVT. LTD. FOR EXPANSION OF RESIDENTIAL APARTMENT PROJECT OVER AN BUILT-UP AREA 23464.49 SQMT LOCATED AT PLOT NO. 552, KHATA NO. 313, MOUZA- SIPASARUBALI, PURI, ODISHA OF SRI KALINGA KESHARI RATH – EC.

1. M/s Evos Buildcon Pvt. Ltd. proposes an Expansion of Residential Apartment Project. The project site is located at Plot No. 552, Khata No. 313, Mouza- Sipasarubali, District-Puri, Odisha on a land measuring 1.917 acres or 7,758.55 m².
2. The project falls under category “B” or activity 8 (a) - Building and construction projects under EIA Notification dated 14th September 2006 as amended from time to time.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

3. The site is coming under development plan of PKD Authority. There are Total 1 Towers i.e. Residential, Departmental Store, Restaurant, Banquet Hall, SPA, Swimming Pool & Kids Pool, Open Food Court.
4. The nearest Railway Station is Puri Railway Station is about 5.6 km (NE) away from the project site and Biju Patnaik International Airport is at a distance of approx. 49 km in North direction from the project site.
5. The project has total 11 floors (G+10). The maximum height of the building will be 35.53m. The total plot area is 7758.55 sqm. Net Plot Area is 7446.37 sqm. The permissible ground coverage will be 2,978.548 sqm (40%) and proposed Ground Coverage will be 2912.20 (39.10%). The permissible FAR will be 37,231.85 sqm (@ 5 of plot area) and proposed FAR will be 21919.25 (2.943). The Non FAR for the project will be 1,545.24 sqm. Total Built up area for the project will be 23,464.49 sqm. The total population of project after proposed will be 2530 persons.
6. The total water requirement will be Ground water met through Bore well which is approx. 285 KLD, out of which total domestic water requirement is 276 KLD. The total domestic water will be 186 KLD, out of which fresh water requirement is approx. 186 KLD & flushing water will 90 KLD.
7. The project will generate approx. 239KLD of wastewater. The wastewater will be treated in an onsite STP of 290 KLD capacity. The treated water (215 KLD @ 90% of total waste water) will be reused for flushing (90 KLD), horticulture (8KLD). Surplus treated water during dry season (117KLD), monsoon season (124 KLD) and winter season (122KLD) will be discharged to external sewer with the requisite permission.
8. Total parking area requirement will be 5,479.812 m². And Total Parking i.e. 283 ECS will be provided.
9. The power supply will be supplied by State Electricity Board. The requirement load for the project will be approx. 1414 kVA. There is provision of 2 Nos. of DG sets of total 445 kVA (1x 320 kVA +1x 125) capacity for power back up during power frailer. Silent DG sets (Radiator cooled). Separate generator yard will be constructed for the residential block.
10. The total solid waste generation will be 1050 kg/day.
11. Total green area measures 1,861.59 m². Total no. of trees proposed = 120 trees.
12. Total Project cost is INR 78.297 Crores including land and development cost.
13. The project proponent along with the consultant **M/s Grass Roots Research & Creation India (P) Ltd., Noida** made a detailed presentation on the proposal before the SEAC on 28.03.2022.
14. The SEAC in its meeting held on dated 28.03.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent followed by site visit by sub-committee of SEAC.
15. The project proponent has furnished the compliance as requested and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
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Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent															
i.	The "Kisam" of the land including that of "road affected" area of 312.18m ² (as stated) as per "HAAL / Sabak" revenue record be submitted and the construction work shall start only after the land is converted to "Gharabari" kisam by the appropriate Revenue Authority.	The "Kisam" of the land including that of "road affected" area of 312.18 m2 is converted to "Gharabari" kisam by the appropriate Revenue Authority. Copy of land papers is attached as Annexure-I .															
ii.	Since it is an expansion proposal and construction is stated to have already started, the details of the construction done already with figures & 3D picture duly certified by the chartered Engineer be submitted. Details of the existing project such as built-up area, copy of building plan approval letter along with building plan of existing project etc. be submitted.	3D images are attached as Annexure-II . Existing built-up area is 14,306.82 mP2. Copy of building plan approval letter and approved building plan for existing part is attached as Annexure-III (a) and Annexure-III(b)															
iii.	Justification as to why this project will not be considered as a violation case.	As per the Building Plan approved by Puri Konark Development Authority vide file no. 329 PKDA, Puri dated 13.04.2021 [copy attached as AnnexureIII(a)], the Built-up area of existing part is 14,306.82 sqm i.e. less than 20,000 sqm, Hence, does not fall under the purview of EIA Notification, 2006. Post expansion, the Built-up area of project will become = 23,464.49 sqm which attracts Schedule 8(a) of EIA notfn. and therefore, we submitted an application to SEIAA, Odisha on 11th Feb 2022 for seeking prior EC for expansion of the project. There is no violation in this case.															
iv.	A comparative statement in matrix form containing all salient & relevant features of building construction & environmental	Comparative area statement is given below <table border="1"> <thead> <tr> <th>S. No.</th> <th>Description</th> <th>Existing area (m2)</th> <th>Proposed Area(m2)</th> <th>Total Area</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Total Plot area</td> <td>7758.55</td> <td>Nil</td> <td>7758.55</td> </tr> <tr> <td>2.</td> <td>Road</td> <td>312.18</td> <td>Nil</td> <td>312.18</td> </tr> </tbody> </table>	S. No.	Description	Existing area (m2)	Proposed Area(m2)	Total Area	1.	Total Plot area	7758.55	Nil	7758.55	2.	Road	312.18	Nil	312.18
S. No.	Description	Existing area (m2)	Proposed Area(m2)	Total Area													
1.	Total Plot area	7758.55	Nil	7758.55													
2.	Road	312.18	Nil	312.18													

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent				
	parameters be submitted showing the same in the respective layout map (for original as well as proposed expansion) to scale including the superimposed one, showing plot area, road affected area, built-up area, ground coverage, FAR area, STP, drainage, green belt, entry & exit gate, with pedestrian path for residential & commercial complexes, parking, building heights etc.		Affected Area (To be surrendered)			
3.		Net Plot Area	7446.37	Nil	7446.37	
4.		Permissible Ground Coverage	(@ 40% of net plot area) 2,978.548	Nil	(@ 40% of net plot area) 2,978.548	
5.		Proposed Ground Coverage	(@30.73 % of net plot area) 2288.65	623.55	(@39.10% of net plot area) 2912.20	
6.		Permissible FAR	(@ 2.75 of net plot area) 20,477.51	Nil	(@ 5.0 of net plot area) 37,231.85	
7.		Total Proposed FAR	(@1.921 of plot area) 14,306.82	7612.43	(@2.943of net plot area) 21919.25	
		Commercial FAR Area			745.34	
		Residential FAR Area			21173.91	
8.		Non-FAR	2288.68	-743.44	(Balcony Area + Ground floor parking area) 787.50+ 757.74 = 1,545.24	
9.		Total Built-up area	16,595.5	+6,868.99	23,464.49	
10.		Required Parking Area as per bye laws			(@25% of residential FAR area+40% of commercial FAR area) = 5293.47+298.13 = 5591.6	
11.		Proposed Parking Area	3709.00	1,921.11	5630.11	
12.	Proposed Green Area	(@25% of net plot area) 1,861.59	NIL	(@25% of net plot area) 1,861.59		

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent				
						[which includes 20.5% area (1526.50 sqm) for Green belt & 4.5 % area (335.08sqm) for lawn]
		13.	Height of the building (m) (up to terrace level)	24	11.53	35.53m
v.	Since built-up area is stated to be increased from 16,595.50 m ² to 23,464.49 m ² , including ground coverage expansion of 623.55 m ² , the detail features that need to come up in additional ground coverage be indicated & shown, since ground coverage is proposed to be expanded from 30.73 % to 39.10 % & height of the building to increase by 11.53 mtr.	<p>The additional ground coverage i.e. 623.55 sqm will be utilised for construction of new block which will be G+10 floors (35.53 m). In the earlier block which is having ground coverage = 2285.65 sqm with B+S+7 floors (24 m height), 3 new floors will be added.</p> <p>Copy of site layout showing additional ground coverage area is attached as Annexure-V.</p>				
vi.	Since the height of the building (s) is proposed to be increased is ten of floors, structural stability certificate to be submitted by PKDA approved engineer. If it is already done by NIT, Rourkela as stated	Copy of Structural stability certificate has been obtained from NIT, Rourkela for construction of ten floors. Copy attached as Annexure-VI .				

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	during presentation, then the same need to be endorsed / authenticated by PKDA.	
vii.	Entry & Exit gates with pedestrian need to be provisioned separately for residential complex & commercial complex and submitted showing in the layout with appropriate dimensions.	Copy of Site Layout showing separate Entry & Exit gates for residential complex & commercial complex with pedestrian pathway is attached as Annexure- IV .
viii.	<p>Parking to be shown & Submitted in the layout map as follows along with norms indicating the area, numbers and percentage:</p> <ul style="list-style-type: none"> ✓ For residential & commercial complex separately. ✓ For 4 wheelers & 2 wheelers separately. ✓ ECS in terms of 4 wheelers & 2 wheelers indicating the space provided as per the norm & the relevant document for the norm followed. ✓ Parking provision in terms of ECS & space as well compatible with no of dwelling units & visitors (floating population for residential complex & 	<p>Revised Plan showing separate Parking for residential & Commercial is attached as AnnexureVII.</p> <p>Revised Parking Calculations are as under:</p> <ul style="list-style-type: none"> • 2 wheelers parking (Residential) = 21.85 ECS i.e. 44 Nos. • 4 wheelers parking (Residential) = 278 ECS i.e. 278 Nos. • 2 wheelers parking (Commercial) = 2 ECS i.e. 4 Nos. • 4 wheelers parking (Commercial) = 11ECS i.e. 11 Nos. <p>Hence, revised parking including 4 wheelers, 2 wheelers, bicycle and visitors parking will be 482 ECS.</p> <p>The parking facilities have been proposed as per NBC 2016 norms. Relevant pages of NBC attached as Annexure-VIII.</p>

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	commercial complex).	
ix.	<p>Surplus treated waste water is stated to be given to nearby construction sites / farmers / Park plantation / External roads etc in the report, but during presentation, it was stated that the same will be discharged to external sewer / drain. This needs to be clarified & confirmed. In case the treated water is to be given to farmer, construction, documentary evidence needs to be submitted. Further, since this arrangement cannot be permanent and consistent, it is necessary to provide connectivity of excess treated water to the nearby drain. For discharging to external sewer/ drain, the permission / NOC from the drain authority to be submitted to take the additional load. The lateral distance between the proposed project boundary & the external drain / sewer be submitted including the ownership/ROW of the land need to be in favour of Project Proponent. Internal drainage map with quantity of both</p>	<p>Surplus treated water will be discharge to external drain which is approx. 350m away from the project site.</p> <p>We have already obtained permission from Gorual Gram Panchayat for disposal of rain water and surplus storm water to nearby PWD/NH drain located in mouza- Sipasarubali in process to obtain the NOC from the drain authority. Copy attached as Annexure-IX.</p> <p>Layout showing drain connectivity is attached as Annexure-X.</p>

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	treated waste water / storm / run-off water be submitted.	
x.	Green Belt was stated to be 14% in the report circulated / uploaded, but corrected to 7.2% during presentation. As such the details with dimension of green belt coverage for the original & proposed expansion be submitted showing in the layout map. Greenbelt area is proposed to be less than 20%. It should be increased to 20% or more and accordingly, revised greenbelt plan be submitted.	<p>Total proposed green area is 1,861.59 m² (25.00% of net plot area) which will include Plantation area = 1526.50 m² (20.5%) + Lawn area = 335.08 m² (4.5%).</p> <p>As per the suggestion of SEAC, we have increased plantation area from 14% to 20.5% of net plot area.</p> <p>Revised Landscape Plan is attached as Annexure-XI.</p>
xi.	The source of domestic / drinking water is stated to be "Bore well". Since, Puri Municipality has agreed to provide water for similar housing projects, the Project proponent need to approach the concerned Authority for the purpose and submit the design of the sump to be provisioned for storage of municipality water and show it in the layout map.	<p>We are in process of obtaining permission from Puri Municipality for water supply to our project site and will also submit a copy of the permission to SEIAA, Odisha. An undertaking regarding the same is attached as Annexure-XII.</p> <p>In case, the Municipal Authority is unable to supply water for our project, we will use ground water for which we have received NOC from CGWA vide letter No. CGWA/NOC/INF/ORIG/2021/14281 dated 10.01.2022. Copy of CGWA NOC is attached as Annexure-XIII.</p>
xii.	Certificate from the concerned authority that the project is not located in the sweet water zone of Puri be submitted.	<p>Our project site is not located in the sweet water zone of Puri.</p> <p>We are in process to obtain certificate from the concerned authority. An undertaking regarding the same is attached as Annexure-XII.</p>
xiii.	DG sets location to	Updated site layout with revised DG sets location is attached as

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	<p>be shifted from shown south-east corner considering the prevailing wind direction as discussed during presentation. Location of dwelling towers and the drawing of the installation of the exhaust pipe of DG sets to be submitted. Study report on extent of sea breeze and land breeze impact over that area and accordingly position of DG set strictly followed.</p>	<p>Annexure-IV.</p> <p>Predominant wind direction is NE.</p> <p>DG set location will be NW as per the wind direction. To mitigate sea breeze and land breeze impacts on the project, following measures will be adopted:-</p> <ol style="list-style-type: none"> 1) Use of stainless steel or corrosion resistant metals. 2) Use of fiberglass framed doors and windows to avoid them from corroding. 3) Minimized use of wood in building construction. Only treated wood would be used to minimize its rotting. 4) Use of durable construction material especially for external paint and plastering. 5) Employing an experienced maintenance agency for regular maintenance of building.
xiv.	<p>Considering Puri being severe cyclone prone place and high flood zone, and site is approximately 900 mtr from Bay of Bengal (Sea), detailed mitigation measures for disaster be submitted.</p>	<p>Copy of Risk Assessment and Disaster Management Plan is attached as Annexure-XIV.</p>
xv.	<p>Certificate from the concerned authority that the project is not located within the CRZ.</p>	<p>Copy of CRZ NOC obtained from Puri Konark Development Authority is attached as Annexure- XV</p>
xvi.	<p>Since no rain water recharge is proposed considering the geography, details of rain water harvesting & its use be submitted.</p>	<p>As per soil investigation study, ground water level at site varies from 1.80-1.95m. Hence, it is not feasible to recharge ground water, therefore, we have proposed a Rainwater Storage Tank of 170 m³. The stored rain water will be treated and used to meet the water demand of the project.</p>
xvii.	<p>Total power requirement is stated to be 1414 KVA. Details of solar power generation & consumption thereof with calculation be submitted showing</p>	<p>Total power requirement for project is 1414 kVA. It is proposed to meet 10% of electrical load i.e. 141 kVA through solar energy. Solar Power will be used for external lighting.</p>

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	as the percentage of total power demand.	
viii.	Fire Tender Corridor details with dimensions showing in the layout map be submitted along with approval of Fire Services Authority.	Fire recommendation is attached as Annexure-XVI and Fire Fighting Plan with fire corridor is attached as Annexure-XVII .

16. The proposed site was visited by the sub-committee of SEAC on 27.04.2022. Following are the observations of the sub-committee and proponent needs to submit relevant documents as below:

- a) Land documents with conversion to Gharabari kisam
- b) Copy of Fire authority recommendation
- c) Copy of Road affected area document
- d) NOC from appropriate authority for connecting the excess treated water to final drain.
- e) The PP needs to submit proof of documents with timeline, responsibility and drain plan for construction of road side drain connecting to existing drain with permission from the authority (Municipality or Panchayat etc) before execution of the project. Any private land if used for drain then the ROR or POA to be submitted.
- f) Provision of solid waste disposal system to be submitted in details including STP waste. In case of any tie up with any agency for disposal, documentary support to be provided.
- g) Internal drain map with final fall out planned. Also rain water harvesting, recharge pits, storm water management, dual plumbing etc to be shown in the map along with revised green belt map and % of plantation in green belt.
- h) Source of water with permission letter from Ground water authority as well as Water Resource department as commercial uses are envisaged. Document in support of non-availability of supply water to be submitted.
- i) Provision of Roof top Solar PV system and Solar calculation details with generation and consumption in terms of % of total power to be provided
- j) Revised Map showing Entry and exit gates (Needs to be separate for residential and commercial) for both residential and commercial area. Parking areas for residential, commercial and visitors (separately) with ECS calculation vs norms and also mention the % of each parking w.r.t. respective area and number of apartments. All parking to qualify the norms. Information to be submitted in tabular form with norms.
- k) Traffic study from a reputed institute with mitigation measure if any.
- l) NOC from CRZ
- m) Structural stability with sufficient documentary proof of foundations and vetted by PKD

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

- n) Documents with tabular form giving all parameters including STP, ETP capacities, green belt, no of units, parking etc – Previous approval vs Present and expansion proposed
- o) All points raised in proceedings (if not submitted)

The project needs to be recommended in view of compliances furnished with some specific conditions.

17. The SEAC in its meeting held on dated 21.05.2022 decided to take decision on the proposal after receipt of certain information / documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
a)	Land documents with conversion to Gharabari kism	The “Kisam” of the land is “Gharabari”. The copy of land papers is attached as Annexure-I .
b)	Copy of Fire authority recommendation	We have received the Fire recommendation letter vide no. RECOMM1103100062021000341 dated 25/11/2021. The copy is attached as Annexure-II .
c)	Copy of Road affected area document	The total plot area is 7758.55 m ² . Road affected area is 312.18m ² . Net Plot area is 7446.37m ² . The area details showing road affected area is attached as Annexure –III .
d)	NOC from appropriate authority for connecting the excess treated water to final drain.	Surplus treated water will be discharge to external drain which is approx. 350m away from the project site. We have already obtained permission from Gorual Gram Panchayat for disposal of rain water and surplus storm water to nearby PWD/NH drain. The copy of the same is attached as Annexure-IV . Layout showing drain connectivity is attached as Annexure – V .
e)	The PP needs to submit proof of documents with timeline, responsibility and drain plan for construction of road side drain connecting to existing drain with permission from the authority (Municipality or Panchayat etc) before execution of the project. Any private land if used for drain then the ROR or POA to be submitted.	We have already obtained permission from Gorual Gram Panchayat for disposal of rain water and surplus storm water to nearby PWD/NH drain. Copy attached as Annexure-IV . The land of Gram Panchyat Gorual will be used for construction of road side drain which will be connected to the existing drain. The existing drain is approx. 350 m away from the project site. We also have submitted fee to Gorual Gram Panchayat office for construction of connecting drain. Copy of fee submission receipt is attached as Annexure-VI . An affidavit regarding timeline for construction of drain is attached as Annexure-VII .
f)	Provision of solid waste disposal system to be submitted in details including STP waste. In case of any tie up with any agency for disposal, documentary support to be provided.	Solid waste will be generated in 2 forms i.e. Biodegradable and Non-biodegradable. Bio-degradable waste will be subjected to composting by organic waste converter and the compost will be used as manure. Recyclable wastes like paper, plastic, metals etc.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		<p>will be sold off to recyclers. We will tie up with approved recyclers for disposal of waste before start of operation.</p> <p>An affidavit stating the same is attached as Annexure - VII</p>
g)	<p>Internal drain map with final fall out planned. Also rain water harvesting, recharge pits, storm water management, dual plumbing etc to be shown in the map along with revised green belt map and % of plantation in green belt.</p>	<p>Internal drain map showing final fall out of rain water and location of storage tank is attached as Annexure-V.</p> <p>Earlier, we had proposed greenbelt area 1,861.59 sqm (@25% of net plot area) which includes 14% area (1042.49 sqm) for Green belt & 11% area (819.10 sqm) for lawn].</p> <p>Now, the revised green area measures 1,861.59 i.e. 25% of net plot area, (which includes 20.5% plantation area-1526.50 sqm) & 4.5% lawn area - 335.08 sqm). Copy of revised greenbelt Map is attached as Annexure-VIII.</p>
h)	<p>Source of water with permission letter from Ground water authority as well as Water Resource department as commercial uses are envisaged. Document in support of non-availability of supply water to be submitted.</p>	<p>We are in process of obtaining permission from Puri Municipal Corporation for water supply to our project site and will also submit a copy of the permission to SEIAA, Odisha. An affidavit regarding the same is attached as Annexure-VII.</p> <p>In case, the Municipal Corporation is unable to supply water to our project, we will use ground water for which we have received NOC from CGWA vide letter No. CGWA/NOC/INF/ORIG/2021/14281 dated 10.01.2022. Copy of CGWA NOC is attached as Annexure-IX.</p>
i)	<p>Provision of Roof top Solar PV system and Solar calculation details with generation and consumption in terms of % of total power to be provided</p>	<p>The total electric load is 1414 kVA or 1,202 KW. 5% of the total electric load will be 61 KW. There will be 180 (395 Watt/Panel) nos. of solar panels on roof.</p> <p>Total solar energy will be generated from roof panels-71 kW.</p>
j)	<p>Revised Map showing Entry and exit gates (Needs to be separate for residential and commercial) for both residential and commercial area. Parking areas for residential, commercial and visitors (separately) with ECS calculation vs norms and also mention the % of each parking w.r.t. respective area and number of apartments. All parking to qualify the norms. Information to be submitted in tabular form with norms.</p>	<p>Copy of Site Layout showing separate Entry & Exit gates for residential & commercial is attached as Annexure-X.</p> <p>Revised Plan showing separate Parking for residential & Commercial is attached as Annexure-XI (a).</p> <p>Revised parking calculation are as under:</p> <ul style="list-style-type: none"> • 2 wheelers parking (Residential) = 21.85 ECS i.e. 44 Nos. • 4 wheelers parking (Residential)= 278 ECS i.e. 278 Nos. • 2 wheelers parking (Commercial) = 2 ECS i.e. 4 Nos. • 4 wheelers parking (Commercial)= 11ECS i.e. 11 Nos.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent																				
		Hence revised parking including 4 wheelers, 2 wheelers, bicycle and visitors parking will be 482 ECS. The parking facilities have been proposed as per NBC 2016 norms. Relevant pages of NBC attached as Annexure –XI (b) .																				
k)	Traffic study from a reputed institute with mitigation measure if any.	Copy of Traffic study is attached as Annexure – XII .																				
l)	NOC from CRZ	We have received NOC from Puri Konark Development Authority. Copy of the same is attached as Annexure – XIII .																				
m)	Structural stability with sufficient documentary proof of foundations and vetted by PKD	We have structural stability letter vetted by RKD is attached as Annexure – XIV .																				
n)	Documents with tabular form giving all parameters including STP, ETP capacities, green belt, no of units, parking etc. – Previous approval vs Present and expansion proposed	<table border="1"> <thead> <tr> <th>Description</th> <th>Approved</th> <th>Expansion</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>DUs</td> <td>249</td> <td>106</td> <td>355 Nos</td> </tr> <tr> <td>ETP</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> <tr> <td>STP</td> <td>120</td> <td>75</td> <td>195 KLD</td> </tr> <tr> <td>Parking</td> <td>123</td> <td>359</td> <td>482 ECS</td> </tr> </tbody> </table>	Description	Approved	Expansion	Total	DUs	249	106	355 Nos	ETP	NA	NA	NA	STP	120	75	195 KLD	Parking	123	359	482 ECS
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o)	All points raised in proceedings (if not submitted)	Already submitted																				

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

- i) “Khatian” (Patta after Mutation) for the entire land from the appropriate Revenue Authority with ‘Kisam’ as Gharabari shall be obtained along with ownership before which construction work shall not start. **The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.**
- ii) **The Proponent shall obtain permission/NOC from Executive Engg (PHD) and / or from the appropriate authority for disposal of Sewage and treated effluent to the nearest drain without which the Proponent will not start construction work. Also in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.**
- iii) The proponent shall use solar energy of 5% as proposed.
- iv) To reduce discharge of treated water to open drain, the proponent shall use more water for increased number of trees proposed to be planted in the green belt area & shall also utilize this treated water for car washing, floor washing to minimize the surplus discharge to drain.
- v) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

- vi) A full-grown tree is existing on the rear side of the Project boundary which should not be felled and rather to be maintained.
- vii) As there is a gap of 350 mt from premise to drain (to be constructed), POA or Possession or Permission proof in support of that land to construct and connect the drain needs to be obtained before commencing construction activities.
- viii) **All the compliances submitted/ committed by PP (s) shall be strictly adhered to by them.**

ITEM NO. 11

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR ROYAL HERITAGE RESIDENTIAL APARTMENT BUILDING PROJECT (S+6) OVER AN AREA 2.66AC. NEAR SHAILASHREE PALACE, GATE NO.1 , PALACE LINE, KOSHAL CHOWK, BOLANGIR OF SRI NIRAJ AGRAWAL (TOTAL BUILT UP AREA - 24843.9 SQM) - EC

1. The proposal is for Environmental Clearance of Royal Heritage Residential Apartment Building Project (S+6) over an area 2.66Ac. near Shailashree Palace, Gate No.1 , Palace Line, Koshal Chowk, Bolangir of Sri Niraj Agrawal (total Built up area - 24843.9 sqm).
2. The project falls under category “B” or activity 8 (a) - Building and Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. M/s Royal Heritage Residential Apartment Building Project (S+6) over an area 2.66Ac. at Plot NO: 1291/2324, 1293/2325 of Khata no. 368/5386, Plot NO: 1372/2331, 1373/2332, 1380/2333, 1381/2334, 1382/2335, 1383/2336 of Khata No. 368/223.
4. **Location and connectivity** - The proposed site is located near to Shailashree Palace, Gate No.1, Palace Line, Koshal Chowk, Bolangir, Odisha. The Geographical co-ordinate of the project site is: Latitude 20°41’ 45.74” N & Longitude 83°28’ 13.53” E. The project site is well connected with National Highway - 201 (Bhawanipatna-Balangir Highway). The nearest railway station is Balangir Railway station at a distance of approx 2.6 Km in East-East- South. The nearest airport is Deogan Air strip which is 20.22 km away from the project site towards S direction. Biju Pattanaik International Airport which is 250 km away from the project site towards SE direction. Nearest Town: Balangir – 1.10Km (N-E), District Headquarters: Balangir at – 2.5 Km (NE).
5. The site is coming under development plan of Balangir Muinicipality area.
6. The Building Details of The Project:

Total plot area	10776.78	SQM
Total stilt floor area	7067.87	SQM
Proposed Built Up Area		SQM
BLOCK A (Residence)		SQM
1st Floor	1567.84	SQM
2nd Floor	1567.84	SQM
3rd Floor	1567.84	SQM
4 th Floor	1567.84	SQM
5th Floor	1567.84	SQM

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

6 th Floor	1567.84	SQM
Total Built Up Area	9407.04	SQM
Block B (Shop And Residence)		SQM
Ground Floor (Shops)	322.98	SQM
1st Floor	2501.7	SQM
2nd Floor	2501.7	SQM
3rd Floor	2527.62	SQM
4 th Floor	2527.62	SQM
5th Floor	2527.62	SQM
6 th Floor	2527.62	SQM
Total Built Up Area	15436.86	Sqm
Proposed Total Built-Up Area (Block A & Block B)	24843.9	Sqm
Ground Coverage	3.38%	
Far Consumed	2.25	

7. **Water requirement:** During operation phase water will be sourced from Ground Water (Public Health Department). Total Fresh Water requirement is 105 m³/day. Total Flushing Water requirement is 53 m³/day. Total Water requirement is 159
8. **Waste water details:** Proponent will treat & recycle the waste water generated from this project. Recycled water will be used within the project area. Total water requirement is 160 (Domestic + Flushing). The treated water recovered from STP will be 106 KLD and will be recycled & reused; out of which 54 KLD for toilet flushing, 30 KLD for Greenbelt & 7 KLD used in DG Set Cooling & 15 KLD for Road/general washing in the project site.
9. **Power requirement:** The daily power requirement for the proposed Residential Project is preliminarily assessed as 1092 KW source from TPWODL of Odisha State Electricity Board. In order to meet emergency power requirements during the grid failure, there is provision of 1 nos. of DG set having 200 KVA capacities for power back up in the Residential Housing Project.
10. **Rain Water Harvesting:** Rain Water will be harvested and recharge through 4 recharge pits from the plot area.
11. **Parking Requirement:** Total parking area provided is for residents 7696.8 m² or 224 ECS for 4 wheelers and 95 ECS for 2 wheelers. Residential area provided is 7356.276 sqm. and 193.788 sqm. for commercial purpose.
12. **Firefighting Installations:** Firefighting system will be installed as per recommendation of the Firefighting Officer, Odisha and as per the guideline of NBC (part-4).
13. **Green Belt Development:** Total green area will measure 2155.356m² (20 % of the total plot area). Trees like *Azadirachta indica*, *Cassia fistula*, *Terminalia arjuna*, *Butea monosperma* etc. and flowering and ornamental plants have been proposed to be planted inside the premises.
14. **Solid Waste Management:** Total solid waste generation 0.570 Ton/day. Adequate number of colored bins (green, blue and dark grey) separate for biodegradable and non-biodegradable will be provided at all strategic locations within the site. The solid waste will be thus segregated

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

at source and collected. STP sludge, which is periodical in nature is proposed to be used for horticultural purpose only after removal of oil & grease. Horticultural Waste is proposed to be composted and will be used for gardening purposes. The solid waste generated from project will be mainly domestic in nature and the quantity of the waste will be 0.560 Ton/day. Solid wastes generated will be segregated into biodegradable 0.342 T/Day (waste vegetables and foods etc.) and Non-biodegradable or recyclable 0.228 Ton/day. (papers, cartons, thermo-cool, plastics, glass etc.) Components will be collected in separate bins. Solid waste & Recyclable and non-recyclable wastes will be disposed through Govt. approved agency.

15. The total population of project will be 1134 persons for residential and 16nos for commercial and 115nos for visitors.
16. The estimated project cost is ` 49.370 Crores.
17. The project proponent along with the consultant **M/s Green Circle. Inc., Vadodara** made a detailed presentation on the proposal on 17.01.2022.
18. The SEAC in its meeting held on dated 17.01.2022 decided to take decision on the proposal after receipt of the following from the proponent followed by site visit by the sub-committee of SEAC.
 - (i) "Kisam" of the land along with relevant document from appropriate Revenue authority be submitted. The said document needs to be in favour of project proponent with conversion of "Kisam" to "Gharabari" before start of construction of the project.
 - (ii) Since the project site is located very proximate to Collector's office, electric office besides being a crowded locality, traffic study be undertaken by a domain expert / institute of repute at relevant intersecting point(s) with all public roads, considering the traffic 10 years ahead with other projects and decongestion plan (as and if any required) based on study findings be submitted.
 - (iii) Provision of parking, both in terms of ECs and space compatible to each other, confirming to norms showing detail calculation and the demarcation in the layout map for 4 wheelers / 2 wheelers / bicycles be submitted. While working out provision of parking, no of dwelling units / visitors / floating population for residential apartment as well as commercial complex be considered and indicated / shown.
 - (iv) Detail plan with calculation of solar power consumption vis-à-vis the generation be submitted indicating the % of total demand.
 - (v) Location of DG set w.r.t. predominant wind direction and location of residential towers looks and hence, to be re-located accordingly. The basis of determination of stack height (25 mtrs) is not indicated. So, the stack height basis of selection of no of DG set(s) and their capacity(s) along with installation drawing of exhaust pipe of the stack be submitted.
 - (vi) Water balance (both monsoon & non-monsoon) be submitted including permission of the authority of the public drain to which the excess treated waste water / storm water shall be discharged. 'ROW' of the land connecting the internal drain and public drain be submitted with dimension and drawing.
 - (vii) Internal drainage network dimension and drawing for both waste water / treated waste water / storm / run off water be shown in the map and submitted. Entry and exit gate (s)

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

with pedestrian pathways, drawing with di-mentions be shown in the layout map and submitted.

- (viii) "Green belt" details with di-mention having continuous stretch along the fair sides of the boundaries and three tier plantations be submitted indicating the norms as well.
- (ix) Provision of fire corridor for free movement of fire tender with drawing and dimensions and pedestrian path alongside be provisioned and submitted showing the same in the layout map.
- (x) Rain water harvesting management with re-charging pits be submitted with detail calculations considering maximum hourly rain fall in 24 hours based on 30 years logical climate date, run off co-efficient and their norms / real time inputs, retention time etc.
- (xi) The layout to accommodate WTP, Waste Water Treatment Plant, STP with Dual plumbing system with matching OVERHEAD tank for fresh water and waste water and OIL water separation pit for the project.
- (xii) The recommendation of the Fire Safety Department be obtained on submission of revised layout plan and Superstructure plan prior to construction activity so that it can be accommodated during construction to facilitate issue of Fire Safety Certificate.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent																																					
(i)	"Kisam" of the land along with relevant document from appropriate Revenue authority be submitted. The said document needs to be in favour of project proponent with conversion of "Kisam" to "Gharabari" before start of construction of the project.	<p>Kisam of all plots are converted to Gharabari. "Kisam" of the land along with relevant document from appropriate Revenue authority (Tahasildar of Balangir) RoR is attached as ANNEXURE-1.</p> <table border="1"> <thead> <tr> <th>KHATA NO</th> <th>PLOT NO</th> <th>KISAM</th> <th>ACRE</th> </tr> </thead> <tbody> <tr> <td rowspan="2">368/5386</td> <td>1291/2324</td> <td>GHARA</td> <td>0.718</td> </tr> <tr> <td>1293/2325</td> <td>BARI GHARA BARI</td> <td>0.345</td> </tr> <tr> <td rowspan="7">368/223</td> <td>1372/2331</td> <td>GHARA</td> <td>0.065</td> </tr> <tr> <td>1373/2332</td> <td>BARI</td> <td>0.865</td> </tr> <tr> <td>1380/2333</td> <td>GHARA</td> <td>0.170</td> </tr> <tr> <td>1381/2334</td> <td>BARI</td> <td>0.050</td> </tr> <tr> <td>1382/2335</td> <td>GHARA</td> <td>0.405</td> </tr> <tr> <td>1383/2336</td> <td>BARI</td> <td>0.045</td> </tr> <tr> <td></td> <td>GHARA BARI GHARA BARI GHARA BARI</td> <td></td> </tr> <tr> <td colspan="3">IN 2 NOS OF KHATA CONTAINING 8 NOS OF PLOT. TOTAL AREA IS</td> <td>2.663 ACRE</td> </tr> </tbody> </table>	KHATA NO	PLOT NO	KISAM	ACRE	368/5386	1291/2324	GHARA	0.718	1293/2325	BARI GHARA BARI	0.345	368/223	1372/2331	GHARA	0.065	1373/2332	BARI	0.865	1380/2333	GHARA	0.170	1381/2334	BARI	0.050	1382/2335	GHARA	0.405	1383/2336	BARI	0.045		GHARA BARI GHARA BARI GHARA BARI		IN 2 NOS OF KHATA CONTAINING 8 NOS OF PLOT. TOTAL AREA IS			2.663 ACRE
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(ii)	Since the project site is located very proximate to Collector's office, electric	Traffic study report is attached as Annexure- 2 .																																					

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	office besides being a crowded locality, traffic study be undertaken by a domain expert / institute of repute at relevant intersecting point(s) with all public roads, considering the traffic 10 years ahead with other projects and decongestion plan (as and if any required) based on study findings be submitted.	
(iii)	Provision of parking, both in terms of ECs and space compatible to each other, confirming to norms showing detail calculation and the demarcation in the layout map for 4 wheelers / 2 wheelers / bicycles be submitted. While working out provision of parking, no of dwelling units / visitors / floating population for residential apartment as well as commercial complex be considered and indicated / shown.	There are two separate entry and exit gates provided for commercial purpose and residential purpose. Provide adequate parking area for commercial and residential purpose. Details of parking area provided in. Attached as Annexure-3
(iv)	Detail plan with calculation of solar power consumption vis-à-vis the generation be submitted indicating the % of total demand.	Attached as Annexure-4.
(v)	Location of DG set w.r.t. predominant wind direction and location of residential towers looks and hence, to be re-located accordingly. The basis of determination of stack height (25 mtrs) is not indicated. So, the stack height basis of selection of no of DG set(s) and their capacity(s) alongwith installation drawing of exhaust pipe of the stack be submitted.	The height of the project is higher than all the buildings around it. The height of the stack will be 3 m higher than the building height (20.5 m). The emission from the stack of DG sets will not have any impact on the buildings around them. The proposed DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper emission dispersion. Proposed stack height as per norms-23.5 m. Location of DG Set with respect to annually average wind direction is South and the location of Dg set will be in the SW Direction. location of DG SET attached as Annexure-5.
(vi)	Water balance (both monsoon & non-monsoon) be submitted including permission of the	Drainage plan of project site given in Annexure-6 NOC from Municipality.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	authority of the public drain to which the excess treated waste water / storm water shall be discharged. 'ROW' of the land connecting the internal drain and public drain be submitted with dimension and drawing.	
(vii)	Internal drainage network dimension and drawing for both waste water / treated waste water / storm / run off water be shown in the map and submitted. Entry and exit gate (s) with pedestrian pathways, drawing with dimensions be shown in the layout map and submitted.	Drainage plan of project site given in Annexure-7.
(viii)	"Green belt" details with dimension having continuous stretch along the fair sides of the boundaries and three tier plantations be submitted indicating the norms as well.	Greenbelt Plan –Attached as Annexure-8.
(ix)	Provision of fire corridor for free movement of fire tender with drawing and dimensions and pedestrian path alongside be provisioned and submitted showing the same in the layout map...	Fire provision for proposed project site is attached as Annexure-9.
(x)	Rain water harvesting management with re-charging pits be submitted with detail calculations considering maximum hourly rain fall in 24 hours based on 30 years logical climate date, run off co-efficient and their norms / real time inputs, retention time etc.	Layout plan showing location of rain harvesting recharging pits and quantity to be harvested taking into consideration the erratic rainfall pattern in the area attached as Annexure-10.
(xi)	The layout to accommodate WTP, Waste Water Treatment Plant, STP with Dual plumbing system with matching OVERHEAD tank for fresh water and waste water and OIL water separation pit for the project.	Layout plan showing location of WTP, Waste Water Treatment Plant, STP with Dual plumbing system with matching OVER HEAD tank for fresh water and waste water and OIL water separation pit for the project is attached as Annexure-11.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
(xii)	The recommendation of the Fire Safety Department be obtained on submission of revised layout plan and Superstructure plan prior to construction activity so that it can be accommodated during construction to facilitate issue of Fire Safety Certificate.	The layout plan which submitted for The recommendation of the Fire Safety Department is attached as Annexure-12 .

20. The proposed site was visited by the sub-committee of SEAC on 22.04.2022. The observations of the sub-Committee are as follows and the proponent needs to comply as per the observations of the Sub-Committee.

- i) As the front road is only 30-35 ft wide, two building projects, after completion, shall lead to traffic jam. Therefore, sufficient buffer space in front of the apartment would help prevent the traffic jam.
- ii) The existing non-functional drain should be made functional by renovating it. Even then, in its present dimension, it would not help to bear the load of the two apartments side by side. The proponent should also plan to release the sewerage after treatment and storm water to Laxmi jor after getting due approval of the appropriate authority. Further, as Laxmi Jor is located at a distance of 100m from the project site, detail information on ownership of the land and the exact plan to use Laxmi jor, existing on the backside of the project may be submitted by the proponent.
- iii) As Bolangir is a drought prone area, use of ground water may be made to certain limit and more rainwater harvesting pits to recharge the ground water may be encouraged.
- iv) An alternate source of water, if possible, may be explored, to avoid crisis, particularly during summer, when the ground water table deepens and gets depleted.
- v) Care should be taken to remove the solid waste from different coloured bins. Detail proposal to this effect may be submitted. Which agency shall be engaged to collect the solid waste, where it will be taken and how it will be taken. Is there any approved solid waste disposal site or processing unit nearby, this may be indicated.

21. The SEAC in its meeting held on dated 21.05.2022 decided to take decision on the proposal after receipt of the information/ documents as per observations of the Sub-Committee of the SEAC at para 20 above from the proponent.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i)	As the front road is only 30-35 ft wide, two building projects, after completion, shall lead to traffic jam. Therefore, sufficient buffer space in front of the apartment would help prevent the	According to the plan given in Annexure-1 , there is an open space of approximately more than 220 sqm (>6 m width and 40m long) between the road and the building. Therefore, sufficient buffer space will be

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent						
	traffic jam.	provided in front of the apartment would help prevent the traffic jam.						
ii)	<p>The existing non-functional drain should be made functional by renovating it. Even then, in its present dimension, it would not help to bear the load of the two apartments side by side. The proponent should also plan to release the sewerage after treatment and storm water to Laxmi jor after getting due approval of the appropriate authority. Further, as Laxmi Jor is located at a distance of 100m from the project site, detail information on ownership of the land and the exact plan to use Laxmi jor, existing on the backside of the project may be submitted by the proponent.</p>	<p>The treated sewage after the tertiary system is collected in the TREATED WATER TANK. Hydrant pumps are provided wherein the treated water shall be used for horticulture/landscaping and the excess water would be pumped into the existing sewage system.</p> <p>Finally the STP treated water after tertiary treatment will be further treated in Ultra filtration system for final use.</p> <p>There will be no treated water discharge from the proposed project in dry season. The treated water of 25 kiloliters/day will be discharged into the municipal drain during the rainy season only. The existing municipal drain present near to the project site has adequate capacity to carry out the treated water during rainy season.</p> <p>The existing non-functional drain will be renovated and commissioned before the commencement of construction at the proposed project site.</p> <p>Total 4 nos Rain Water Harvesting structures having capacity of 35 m³ of each recharge pit are being proposed for artificial rain water recharge within the project premises. Dispose of surface water. Percolation wells will be provided for rainwater harvesting and to raise subsoil water level. Excess rain water will be disposed to the available storm water drain near to the project site.</p>						
iii)	<p>As Bolangir is a drought prone area, use of ground water may be made to certain limit and more rainwater harvesting pits to recharge the ground water may be encouraged.</p>	<p>Total 4 nos Rain Water Harvesting structures having capacity of 35 m³ of each recharge pit are being proposed for artificial rain water recharge within the project premises. Dispose of surface water. Percolation wells will be provided for rainwater harvesting and to raise subsoil water level. Details of rain water harvesting is given in Annexure-2.</p>						
iv)	<p>An alternate source of water, if possible, may be explored, to avoid crisis, particularly during summer, when the ground water table deepens and gets depleted.</p>	<p>Source : PHD supply water Permission from PHED – Attached as Annexure -3 Fresh water Demand : 105 KLD Waste Water Generation and Re- Use</p> <table border="1"> <tbody> <tr> <td>Fresh Water</td> <td>105 KLD</td> </tr> <tr> <td>Flushing water</td> <td>53.2 KLD</td> </tr> <tr> <td>Waste Water</td> <td>132 KLD</td> </tr> </tbody> </table>	Fresh Water	105 KLD	Flushing water	53.2 KLD	Waste Water	132 KLD
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Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent								
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v)	Care should be taken to remove the solid waste from different coloured bins. Detail proposal to this effect may be submitted. Which agency shall be engaged to collect the solid waste, where it will be taken and how it will be taken. Is there any approved solid waste disposal site or processing unit nearby, this may be indicated.	<p>Approx. 569.250 kg/day of solid waste would be generated (@ 0.450 kg per capita per day for residents, @ 0.25 kg per capita per day for staff & @ 0.15 kg per capita per day for visitors and landscape wastes @ 0.2 kg/acre/day).</p> <p>a) 60% bio-degradable waste b) 30% non-bio degradable c) 10% inert waste</p> <p>Details of solid waste generation, collection and management is given in Annexure-4. Permission From Balangir Municipality for solid waste collection and disposal is attached as Annexure- 5.</p>								

Considering the information furnished and the presentation made by the consultant, **M/s Green Circle. Inc., Vadodara** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – L** in addition to the following specific conditions.

- i) “Khatian” (Patta after Mutation) for the entire land from the appropriate Revenue Authority with ‘Kisam’ as Gharabari shall be obtained along with ownership before which construction work shall not start. **The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.**
- ii) **The Proponent shall obtain permission/NOC from Executive Engg (PHD) and / or from the appropriate authority for disposal of Sewage and treated effluent to the nearest drain without which the Proponent will not start construction work. Also in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.**
- iii) The proponent shall use solar energy of 5% as proposed.
- iv) To reduce discharge of treated water to open drain, the proponent shall use more water for increased number of trees proposed to be planted in the green belt area & shall also utilize this treated water for car washing, floor washing to minimize the surplus discharge to drain.
- v) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- vi) **All the compliances submitted/ committed by PP (s) shall be strictly adhered to by them.**

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

ITEM NO. 12

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

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

Ground floor B.U.A	259.42 sqm
First Floor B.U.A	259.42 sqm
Second Floor B.U.A	259.42 sqm
Third Floor B.U.A	259.42 sqm
Fourth Floor B.U.A	259.42 sqm
Fifth Floor B.U.A	259.42 sqm
Total Floor B.U.A	1297.10 sqm
 2. **Proposed Cancer Block(Capacity-300)**

Lower Basement Floor B.U.A	1578.36 sqm
Upper Basement Floor B.U.A	1469.95 sqm
Ground floor B.U.A	1210. 48 sqm
First Floor B.U.A	1231.13 sqm
Second Floor B.U.A	1372.04 sqm
Third Floor B.U.A	1430.96 sqm
Fourth Floor B.U.A	1430.96 sqm
Total Floor B.U.A	9723.88 sqm

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

3. Proposed Library Block

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

4. Basement-I Parking Area : 3733.67 Basement-II Parking Area : 3733.67 Podium Floor Parking Area : 3344.36

5. Proposed Parking Block

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

6. **Water requirement:** During Operation phase the fresh water requirement is approx. 760 KLD (source is IDCO), out of which for Residents (Student/Patient/ Staff/Doctors/Attendants) – 7,15,000 LPD, Day Working Staff & Patients – 45,000 LPD, Watering of Lawn, Garden & Play Ground – 50,000 LPD, Kitchen, Laundry & Ground Recharge- 50,000 LPD
7. **Waste water details:** Waste Water Generation 409 KLD , will be treated in STP of capacity 400KLD. Treated Waste Water Recovered & to be reused - 280 KLD & to be reused (Greenbelt – 50KLD & washings and others - 230 KLD) and rest 120 KLD discharge to nearest Municipal Drain.
8. **Power requirement:** The total power requirement approx. 1215 KW and source is from TPCODL. Emergency power back of capacity 6965 KVA through - 3Nos. DG set 1500 KVA, 1No. DG set 600 KVA, 3Nos. DG set 500 KVA, 1No. DG set 365 KVA.
9. **Rain Water Harvesting:** Total Runoff from Storm Water from Site is 1007 m³ so based on 1no. Harvesting pit volume 43 cum we required 61 nos. Rain water Harvesting Pits.
10. **Parking Requirement:** Total area provided for parking is 45373.5 sqm.
11. **Fire fighting Installations:** Fire fighting system will be installed as per recommendation of the Firefighting Officer, Odisha and as per the guideline of NBC (part-4).
12. **Green Belt Development:** Total green area measures 18250.39Sq.mts.
13. **Solid Waste Management:** Total quantity of Municipal Solid Waste:
Bio-degradable waste = 217 kg/day.
Non- bio degradable waste = 76kg/day. Hand Over to Authorized Agencies.
Hospital/Biomedical waste = 110 kg/day disposed to Sani Clean Pvt. Ltd. Segregation, Storage & Disposal as per Bio-medical Waste Management Rules 2016.
14. The estimated project cost is ` 65 Crores and cost for EMP is ` 1332 lakhs.

15. The project proponent along with the consultant **M/s Green Circle INC., Vadodara-390021(Gujurat)** made a detailed presentation on the proposal on 18.05.2022.
16. The SEAC in its meeting held on dated 18.05.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent followed by site visit of sub-committee of SEAC.
17. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i.	Statutory clearance status such as Environmental Clearance, Consent to Establish and Consent to Operate from the Board for the existing building.	The CTO is attached as Annexure-1
ii.	BDA letter refers to regularization of the Building from SEIAA for Environmental Clearance. So, construction status of the existing building such as total built-up area constructed prior to 14 th September, 2006 and after 14 th September, 2006 is to be submitted for academic Block (s) and Hospital Building (s) separately with associated infrastructures.	The letter from BDA to regularization is attached herewith as Annexure-2 .
iii.	Copy of all approval letters of BDA of existing buildings from the inception.	Copy Attached as Annexure-2 .
iv.	Existing water consumption is stated to be 493 KLD for hospital and 107 KLD for domestic purpose. Water consumption both for existing set up and proposed expansion be submitted along with basis of calculation and water balance diagram both for monsoon and non-monsoon period.	Water balance diagrams are attached herewith as Annexure-3 series.
v.	Agreement copy of PP with Sani clean. Agreement copy submitted found to have been expired since 31st October, 2020.	Agreement copy is attached herewith as Annexure-4 .
vi.	Reduce the discharge treated water to drain by increasing the greenbelt indicating presently being discharged & proposed to be discharged with permission from the concerned authority of the drain for the purpose.	Instruction followed and implemented as proposed. The permission letter of the concern authority is attached as Annexure-5 .
vii.	Detailed land schedule with kissam of land in tabulated form along with supportive land documents of all	Detailed land schedule with kissam of land are attached as Annexue-6 .

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	academic/institutional/clinical buildings/parking space and physical features of the existing and proposed expansion showing the same in layout map including land use pattern. " Kisam" of the land in " Sabik" and " Haal" land record.	
viii.	Comparative table showing existing and proposed project in terms of environment features / parameters and physical features / parameters including safety with 3D pictures including the distance between the buildings as against the norm.	Attached as Annexure-7.
ix.	Separate STP and ETP units or brief write up for integrated setup. To confirm the existing no of STPs with their corresponding capacity(s) and their location in the layout map within put details and output discharge and proposed additional nos. an d capacity with location. Similarly to confirm the existing no of ETPs with corresponding capacity and their location in the layout map with input details & output discharge & where to discharged and disposal of ETP sludge including for the expansion also.	Attached as Annexure-8.
x.	Chemical analysis report on discharge of STP and ETP vis-à-vis norms and discharge of integrated setup of STP and ETP (if existing is integrated).	Chemical analysis report of STP & ETP of existing building are attached as Annexure-9.
xi.	Traffic study report from an institute of repute and decongestion plan at intersecting points of exit & entry with public road.	Traffic study report is attached as Annexure-10.
xii.	Provision for Incinerator to be made and if not, to justify, in absence of incinerator, how the organic wastes, infectious waste etc. would be deactivated to avoid further pollution and hazardousness. Also submit how the infectious waste of 436.66kg/ day	The organic wastes, infectious waste are disposed to the OSPCB authorized & approved agency (Sani clean).

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	as stated at present being disposed and proposed to be disposed after expansion indicating the estimated quantity.	
xiii.	Monitoring plan and measures to be taken for safely disposal of Bio-medical wastes.	The disposal of Bio-medical wastes are implementing as per the SOP given by the approved agency and with his supervision.
xiv.	Layout of DG set location with respect to wind direction.	Layout plan for DG is attached as Annexure-8.
xv.	Details of solar panel accommodated and utilized with power generation details vis-à-vis total power used per day for existing and proposed after expansion.	Details of solar panel accommodated and utilized with power generation details is attached as Annexure-11.
xvi.	Building wise built-up area of existing and proposed expansion both for academic and hospital separately.	Separate map for Building wise built-up area of existing and proposed expansion both for academic and hospital are attached as Annexure-11 series.
xvii.	Permission/NOC from BMC for discharge of treated water to existing drain for existing and additional load	Permission for discharge of treated water to existing drain for existing and additional load is attached as Annexure-5
xviii.	Layout and breakup percentage for green belt and landscape for existing and proposed with dimensions & stretch and percentage of the land area excluding land scape.	Attached as Annexure-11.
xix.	Fire-fighting and parking arrangements for existing and for proposed expansion.	Attached as Annexure-12.
xx.	Rain water harvesting and recharging details to be submitted.	Report Attached as Annexure-13.
xxi.	Parking provision in terms of space and ECS (both for two wheelers and four wheelers) in reference to present beds, OPD and proposed expansion in consideration of patients' visitors, doctors, and medical staff be submitted.	Attached as Annexure-14.
xxii.	Permission/license of proposed HSD storage tank including details of the present arrangement.	There is no provision for HSD storage tank.
xxiii.	Dimension (Stretch and width) of greenbelt with number of trees Existing and Proposed to be planted.	Details are Attached as Annexure- 8.
xiv.	Layout map showing the drain network	Attached as Annexure-11.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	(internal), Recharge pits, STP etc. to be submitted.	
xv.	Firefighting arrangements with periphery roads for firefighting and its width to be submitted in layout map including entry and exit gates.	Attached as Annexure-11 .
xvi.	NOC from CGWA and permission from WR department Government of Odisha for current use of ground water and proposed drawl of ground water after expansion to be submitted.	Attached as Annexure-15 .
xvii.	The STP and ETP should not be housed in the same building. The pipelines shouldn't be inter-connected. Attempt should be made to operate the ETP on zero discharge principle. Detailed proposal to this effect to be submitted.	Agreed and maintain the same as proposed.

The SEAC decided to take decision on the proposal after site visit of the Sub-Committee of SEAC.

ITEM NO. 13

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S AMNS INDIA LIMITED FOR RESIDENTIAL TOWNSHIP OVER AN BUILT-UP AREA 62542.44 SQ.M LOCATED AT VILLAGE – CHAKRADHARPUR, TAHASIL KUJANG, PARADEEP, DIST - JAGATSINGHPUR OF SRI SUBRAHMANYA SHANBHOGUE TANTRADI (EXECUTIVE DIRECTOR) – EC

1. This is a proposal for Environment Clearance of M/s AMNS India Limited for Residential Township over an Built up area 62542.44 sq.m located at Village – Chakradharapur, Tahasil Kujang, Paradeep, Dist - Jagatsinghpur of Sri Subrahmanya Shanbhogue Tantradi (Executive Director).
2. The project falls under category “B” or activity 8 (a) - Building and Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. M/s AMNS India Limited has proposed for construction of Residential Township project of AMNS India Limited, At Village Chakradharapur under Kujang Tahasil Paradeep, Dist. Jagatsinghpur of Odisha.
4. The site is coming under development plan of Paradeep Development Authority. The project will be developed on the land measuring 32293.914 sqm or 7.98 Acres.
5. **Location and Connectivity** - The proposed township is over on Plot No 391,392,393, 394,395, 397, 398, 399(P), 401,402,403,404,405,406&407 (Khata No. 297 (A.J.A). Kisam – Gharabaari and geo coordinates is Latitude: 20°19'14.29"N, Longitude: 86°36'24.02"E. Plot area of project is estimated to be 32293.914 sqm., or 7.98 Acres & the Built up Area is estimated to be 62,542.44 sqm. (Including stilt) & 46,598.04 sqm. (Excluding Stilt). The Residential Township is well connected with Bhubaneswar. The site is located near to Cuttack-

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Paradeep State Highway Road which connects to NH-5A (Cuttack-Chandikhol Road) at Bhutamundai Bus Stand Square is about 3.45 Km in the E direction. The Cuttack-Paradeep State Highway Road then connects to NH-5A at Dochakki, Udayabata Square (covering a total of 2.35 km by road in the W direction from the project site). And the site is approximately 8 km (by road) from Paradeep Railway Station. The Residential Township in totality is well connected through Road, Rail & Air.

6. **The Proposed size of the Project** - Plot area 32293.914sqm (7.98 acres or 3.22 Ha). Proposed Total 10058.60 m² (31.1 % of the plot area)). Total Built-up Area = 62542.44 m², No. of Floors (LS+US+10). Proposed F.A.R =1.42 (45,932.44 m²), Total no. of Dwelling Units - 244 DU+60 Hostel Room+3 Duplex. Landscape Area is 12121.72 m² (37.5 % of the plot area). Road and Paved area 8538.86 (26.4 % of the plot area).

7. **TYPE OF BUILDINGS IN RESIDENTIAL TOWNSHIP**

The typical configurations for various types of buildings in Residential Township are as follows:

Three (3) BHK Building: 1 (one) 3 BHK tower

Two (2) BHK Building: 2 (two) 2 BHK tower

One (1) Executive Hostel Building: 1 (one) Executive Hostel tower

One (1) V.I.P. Duplex: 1 (one) V.I.P. Duplex

Two (2) Duplexes: 2 (two) Duplexes

Besides the above, the Residential Township will comprise a community center, shopping mall, guest house, clubhouse, health center, temple, amphitheater, and playground facilities.

8. **Power requirement:** Power supply to the township shall be drawn from the AMNS Plant HT bus through a dedicated feeder. The maximum demand load is estimated at 3560 KVA & connected load is estimated at 2904 KW. Details of DG Sets - There is a provision of Power backup for the residential project will be through DG sets of total capacity 1X2000 KVA + 1 X 1500 KVA +1X 500 KVA silent DG Set. The proposed DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.
9. **Water requirement and waste water details:** The water requirement is approx. 218 KLD (domestic + flushing), out of which total domestic water requirement is 145 KLD (Daily water Requirement) & Treated wastewater reuse =140 KLD. So, the total freshwater requirement is 145 KLD (daily basis for domestic requirement). Approximately, 174 KLD of wastewater will be generated during the operational phase from domestic uses and other uses. The wastewater will be treated up to tertiary level in one STP of 200 KL capacity.
10. **Rainwater Harvesting** - Total 24 no of Rainwater harvesting structures with 1 recharge well are being proposed for artificial rainwater recharge within the project premises.
11. **Parking Requirement:** Total parking area provided= 14350.50 sqm. Total ECS provided= 14350.50/28=512.5 or to say 513 including 10% of visitor parking. Open Parking: 2815.3 sqm Total ECS Provided = 2815.3/12 =235 including 10% of visitor parking.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

12. **Fire fighting Installations:** Fire Fighting Systems at Township – Fire fighting measures shall be adopted as per the guidelines of NBC. Hazard classification as per the NBC-2016. Safety measures taken are proper fire exits and exit signage will be provided. Fire extinguishers of appropriate type will be placed on a readily accessible place and will be maintained accordingly. Fire hydrant system will be provided within the buildings, fire escape staircases. In addition, 10 kg fire extinguishers will be provided for class A, B, and C fires. CO2 extinguishers will also be provided..
13. **Green Belt Development:** The project being a well-planned residential activity will result in organized open spaces and green areas. The green area will consist of evergreen tall and ornamental trees and ornamental shrubs to be planted inside the premises. The green area will be developed approx. 12121.72 m² (37.53 % of the plot area).
14. **Solid Waste Management:** During the operation phase, waste will comprise domestic waste. The solid waste generated from the project shall be mainly MSW (Municipal Solid Waste) approx. 726 kg/day. Organic waste-522.5 kg/day. In-organic waste - 204 kg/day.
15. The cost of the project is ` 87 Crores. EMP cost: Capital Cost – 124 Lacs and Recurring Cost – 11.1 Lacs
16. The Environment consultant **M/s Visiontek Consultancy Services PVT. LTD., Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee on 07.05.2022.
17. The SEAC in its meeting held on dated 07.05.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent followed by site visit by the sub-committee of SEAC.
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
i.	Salinity report of water to be submitted with measures to reduce in case of increase in salinity norm.	Salinity report of Taladanda Canal is Attached as Annexure-1 .
ii.	Source of water probably from Taldanda Canal. If so, then agreement copy with W.R. Deptt., Govt. of Odisha shall be submitted.	NOC from the water sourcing authority i.e., W.R. Dept., Govt. of Odisha has been obtained vide letter no. 6598 dated 16/07/2020 of Executive Engineer, Mahanadi South Division No-I, Jobra Cuttack. Water Permission letter is attached as Annexure-2 .
iii.	Internal drain network with dimension in the unit layout to be submitted along with dimensions and its connectivity and drain to which the treated waste water will be discharged including the permission from the authority of the later.	<u>Details of Wastewater Management:</u> We will treat the wastewater of the residential Township in well-designed Sewage Treatment Plant (STP) having capacity of 200 KLD (MBBR Type). Excess Treated Water during Monsoon Season (67 KLD) will be reused in miscellaneous uses in pellet plant. The entire sewage pipeline network running

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		<p>all over the project site will handle the sewage generated from all the respective units within the township area. The capacity of the STP has been estimated based on the quantity of waste water generated from the township area. The effluent network shall connect all the units of the project through 150mm diameter HDPE pipes. The pipelines have been designed keeping in mind the requirements per the National Building Code and to operate on natural gravitational flow under the effect of the gradient of 6.0m difference available within the site. They are of sufficient capacity to handle the sewage / effluent within the project site.</p> <p>The proposed pipeline network, along the Master Plan, and cross-section of pipeline is enclosed here with as Annexure-3.</p>
iv.	Plot wise land schedule with kissam of land duly certified by concerned Tahasildar both as per Hall and Sabik records. The land record of the whole land shall be converted to "Gharabari" before start construction.	The application has been submitted to Tahasildar, Kujanga for issue of certified copy of plot wise land schedule with kissam as per Hal and Sabik records attached as Annexure-4 .
v.	Proposed green belt details with stretch / dimension / number of trees to be planted & the species be submitted. Hardy plants are suggested to be planted in greenbelt area.	Green Belt Plan is attached as Annexure-5 .
vi.	Copy of agreement with agency for disposal of non-biodegradable wastes.	Copy of agreement with agency for disposal of non-biodegradable wastes is given in Annexure-6 .
vii.	Traffic study report to be vetted by reputed institute to be submitted.	Traffic study report is given in Annexure-7 .
viii.	Captive power plant can be used for emergency power backup. PP stated to have 4 nos. of DG sets with cumulative capacity of 4000KVA. It is to be reworked to reduce both in number & capacity and re submit in view of emergency power backup from CPP.	<p>I. We have provided a D.G. set of 1500 KVA, where the D.G. Set gives the power supply to 3 BHK block, Executive Hostel, Shopping and Commercial block and to Fire pump Panel.</p> <p>The total connected load as per calculation is 1693463 Wattage, which comes out 1354.77 KW.</p> <p>As per the residential housing 65 % D.G. load to be taken care.</p> <p>Hence, the 65% of the total connected load = 1354.77 x 65% = 880.6 KW. (Peak Load by D.G. set)</p> <p>880.6 KW converted as KVA = 880.6 x 0.8 = 1100.75 KVA.</p>

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		<p>We Considered as 1500 KVA D.G. set, as the power supply consider a 1500 KVA gives = $1500 \times 0.8 = 1200$ KVA.</p> <p>Hence, it fulfils our requirements</p> <p>II. We have provided a D.G. set of 2000 KVA, where the D.G. Set give the power supply to 2 BHK blocks (2 Nos), and to pump Panel.</p> <p>The total connected load as per calculation is 2044688 Wattage, which comes out 1635.75 KW.</p> <p>As per the residential housing 65 % D.G. load to be taken care.</p> <p>Hence, the 65% of the total connected load = $1635.75 \times 65\% = 1063.24$ KW. (Peak Load by D.G. set)</p> <p>1063.24 KW converted as KVA = $1063.24 \times 0.8 = 1329.05$ KVA.</p> <p>We Considered as 2000 KVA D.G. set, as the power supply consider a 2000 KVA gives = $2000 \times 0.8 = 1600$ KVA.</p> <p>Hence, it fulfils our requirements.</p> <p>III. We have provided a D.G. set of 500 KvA. Where the D.G. Set give the power supply to Club house, Health centre, VIP Duplex, Duplex (2 Nos), Temple, STP and External Lighting. The total connected load as per calculation is 403055 Wattage, which comes out 403.055 KW.</p> <p>As per the residential housing 65 % D.G. load to be taken care.</p> <p>Hence, the 65% of the total connected load = $403.055 \times 65\% = 261.98$ KW. (Peak Load by D.G. set)</p> <p>261.98 KW converted as KVA = $261.98 \times 0.8 = 327.48$ KVA.</p> <p>We Considered as 500 KVA D.G. set, as the power supply consider a 500 KVA gives = $500 \times 0.8 = 400$ KVA.</p> <p>Hence, it fulfils our requirements.</p>
ix.	Structural Stability certificate to be vetted by reputed institute to be submitted as per bye law of the Development Authority.	Structural Stability Certificate is given in Aneexure-8.
x.	Waste Water Treatment Plant to be	<u>Details of Wastewater Management:</u>

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	installed.	We will treat the wastewater of the residential Township in well-designed Sewage Treatment Plant (STP) having capacity of 200 KLD (MBBR Type). Excess Treated Water during Monsoon Season (67 KLD) will be reused in miscellaneous uses in pellet plant.
xi.	Mitigation measures taken for flash flooding.	Mitigation measures taken for flash flooding: We have designed taking into consideration the H.F.L. of the site. Present N.G.L – 2.50 Present R.L – 5.20 Present F.G.L. – 4.20 Present Plinth level – 4.35 (For Building with stilt) Present Plinth level – 4.80 (For Building without stilt) Present Roof level of the Lower Stilt – 8.25 The H.F.L – 2.70 (Data collected from last 40 Years) Hence, the H.F.L is less than the both type of plinth levels. So, all our building are not affected by any type of flash flooding.
xii.	Stated STP capacity of 200KLD appears inadequate and to be reworked based on the quantity of effluent treatment with design margin and submit.	Adequacy of Sewage Treatment Plant (STP) & design details along with Water Management plan given in Annexure-9 .
xiii.	Permission from State Highway authority for laying pipe for drawing water from Taladanda canal and possession of any private land for the purpose as well as permission from WR department, Government of Odisha for installation of Pump in the canal for the purpose.	The undertaking to obtain all the requisite permissions from the concerned statutory authorities for the drawl of water from taladanda canal prior to the operational of township attached as Annexure- 10 .

Considering the information furnished and the presentation made by the consultant, **M/s Visiontek Consultancy Services PVT. LTD., Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – M** in addition to the following specific conditions.

- i) “Khatian” (Patta after Mutation) for the entire land from the appropriate Revenue Authority with ‘Kisam’ as Gharabari shall be obtained along with ownership before which construction work shall not start. **The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.**
- ii) **The Proponent shall obtain permission/NOC from Executive Engg (PHD) and / or from the appropriate authority for disposal of Sewage and treated effluent to the**

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

nearest drain without which the Proponent will not start construction work. Also in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.

- iii) The proponent shall use solar energy of 5% as proposed.
- iv) Trees located within the project area if any shall be de-rooted and re-rooted / transplanted to alongside the boundary green development area instead of cutting. If there will be any tree cutting required, requisite permission for the same shall be obtained from the Forest Department.
- v) To reduce discharge of treated water to open drain, the proponent shall use more water for increased number of trees proposed to be planted in the green belt area & shall also utilize this treated water for car washing, floor washing to minimize the surplus discharge to drain.
- vi) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- vii) **All the compliances submitted/ committed by PP (s) shall be strictly adhered to by them.**

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

ITEM NO. 14

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S UTKAL STONEX (P) LTD. FOR UTTAR BRUNDABAN CHANDRAPUR DECORATIVE STONE DEPOSIT OVER AN AREA 5.40 ACRES OR 2.185 HECTARES IN VILLAGE - BRUNDABAN CHANDRAPUR, TAHASIL – KHUNTA, DISTRICT - MAYURBHANJ OF SRI YOGESH PATEL (DIRECTOR) - EC

1. The proposal is for Uttar Brundaban Chandrapur Decorative Stone Deposit over an area 5.40 acres or 2.185 Hectares in Village - Brundaban Chandrapur, Tahasil – Khunta, District - Mayurbhanj of Sri Yogesh Patel (Director).
2. The project falls under category “B2” (Lease area < 5.0 Ha) or activity 1 (a) – Mining of Minerals projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. Letter of Intent has been granted in favour of M/s. Utkal Stonex Pvt. Ltd. for Uttar Brundaban Chandrapur Decorative Stone Mines over an area of 2.185 ha. for a period of 30 years vide letter no.214/SM, of dated:06.01.2020 of Dept. of Steel & Mines, Govt. of Odisha.
4. Mining Plan is approved on 11.06.2021 by Directorate of Mines, Govt. of Odisha vide letter no. MXXII-(a)-17/2020 4372/DM of dated:11.06.2021.
5. The entire Mining Lease area of 2.185 hectares comprises of non forest land.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

6. **Location and Connectivity** - The project area is bounded by Latitude 21039'08" to 21039'13" N Longitude: 86037'28" to 86037'28"E and featured in SOI Toposheet No. 73 K/10 (F45O10).The area is situated at 69.5 m to 90.5 m AMSL. Khunta Tahasil head quarter is situated at a distance of 8 kms from the project site. The nearest National highway Chennai-Kolkatta (NH 18) at a distance of 24 kms. The nearest Railway station at Betnoti at a distance of 25 kms. Similipal National Park is at a distance of 13 Kms from the site at Kundabai:, Khunta RF is at a distance of 4.4 Kms from the site at Kendumundi and Paturikata RF is at a distance of 2.6 Kms from the site at Rajgonj.No wildlife or archeological sensitive area exist within 10 kms of project site.The nearest education and health facility available at Udala at a distance of 11 kms.
7. **Reserves and Production** - The production capacity of the quarry as per Mining plan approved is 4966 cum in 5 years. The geological and mineable reserves of Uttar Brundaban Chandrapur Decorative Stone Deposit is 52373 cum and 28163 cum respectively. Mining is proposed by opencast and semi mechanized method with the deployment of machines like Jack Hammer Drill, Compressor, Hydraulic Excavators & Tippers. The decorative stone blocks will be extracted, loaded and transferred from a quarry face to the stone cutting shop/processing plant/port through trailers/lorries/ trucks.
8. Total waste generated during the plan period from the mines would be 38740 cum which shall be dumped in over an area of 0.221 hectares in the south-eastern part of the lease area.
9. **Water Requirement** - Total water requirement for the project will be 2 KLD and source will be from bore well exist nearby village.
10. **Greenbelt** - The plantation will be done over an area of 0.335 Ha in the lease boundary and open spaces available.
11. **Employment Potential** - Total 26 nos man power is needed for the project.
12. The cost of the project is 2 Lakhs.
13. The Environment consultant **M/s Envomin Consultant (Pvt.) Ltd., Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee on 07.05.2022.
14. The SEAC in its meeting held on 07.05.2022, decided to take decision on the proposal after receipt of the certain information / documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i.	Dump management with detail calculations of waste utilization / inventory / sale including its chemical composition and safety management of dump to avoid slope failure of dump.	Dump Management details attached as Annexure-I.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
ii.	Water management with details of rain water harvesting, its design & calculation along with zero discharge plan be submitted.	Area is a slopy, the mining will be carried out in the hill slopes. Rain water harvesting will be done at the toe of the hill around the dumpsite.
iii.	Silt management including procedure for silt management for de-silting of surrounding water body(s) / Agricultural land be submitted.	Slit management will be done by way of constructing check dam around the dump and the toe of hill. The size of the check dam will be 20000mm x 500mm.
iv.	Reduction in cutting of tress and promote transplantation of tress on safety zone.	No cutting of trees will be done as the area is devoid of vegetation. The total area is rock mars. In future the area earmarked for safety zone would be subjected for transplantation of trees to reduce the environmental stress.
v.	NOC from the concerned BDO for use of Panchayat/ village road for transportation of minerals.	An undertaking is submitted by lessee he will take the permission from the concerned authority to use the panchayat /village road for transportation. Enclosed as Annexure-II .
vi.	Certificate from the concerned Mining Officer that there is no other decorative mine within 500 meters from the boundary of the lease area.	The certificate from the concerned Mining officer is attached as Annexure-III and mentioning that there is no other decorative mines within 500 meters of this Mining Lease.
vii.	Certificate from the concerned DFO that there is no DLC land involved in the lease area.	The Deputy Director of Mines, Baripada has communicated to concerned DFO to obtain the status of DLC. The letter is attached as Annexure-IV .
viii.	In view of the likely revision of DSR for Mayurbhanj District in future the details of this Minor Mineral reserve to be ensured in the revised DSR.	The DSR for Mayurbhanj district is attached for your kind perusal. Enclosed as Annexure-V .
ix.	Due to non-availability of exploration data, increase in production if any to be complied.	Thus mine is a new mine so there is no question of increased productions. The exploration has been done by way of Pitting & trenching and the same is attached in mining plan.
x.	Map showing environmental sensitive places near to lease.	A map showing environmental sensitive place is attached. Annexure-VI .
xi.	CSR activities to be approved by district administration.	The CSR activities to be done as earmarked in the management plan would be approved by district administration after grant of mining lease by the Department of steel & Mines, Govt. of Odisha.
xii.	Plantation programme to be completed within one year and to be maintained in	Plantation programme in Safety Zone would be completed in 1st year and in other 4 years of planning period would be kept under the

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent																								
	remaining years.	maintenance of plantation.																								
xiii.	Provision of STP of small capacity since about 30 people will be working.	A small STP would be done at office site during the 1st year of operation of mine. In this regards an undertaking by the applicant is attached as Annexure-VII.																								
xiv.	To indicate the physical features with reference to particularly water bodies and Agricultural lands within 10 km radius.	A map showing the buffer zone around 10 km radius of the mining lease area showing different categories of land is submitted. Annexure-VIII. Land cover Details: <table border="1"> <thead> <tr> <th>Sl No.</th> <th>Land use/Land cover Category</th> <th>Are Statistics (Sq.Km)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Urban Area</td> <td>2.415</td> </tr> <tr> <td>2.</td> <td>Settlement Area</td> <td>34.573</td> </tr> <tr> <td>3.</td> <td>Open Scrub Area</td> <td>6.261</td> </tr> <tr> <td>4.</td> <td>Reserve Forest Area</td> <td>11.893</td> </tr> <tr> <td>5.</td> <td>Agriculture Land</td> <td>266.374</td> </tr> <tr> <td>6.</td> <td>River/Water body</td> <td>6.964</td> </tr> <tr> <td colspan="2" style="text-align: right;">Total</td> <td>328.48</td> </tr> </tbody> </table>	Sl No.	Land use/Land cover Category	Are Statistics (Sq.Km)	1.	Urban Area	2.415	2.	Settlement Area	34.573	3.	Open Scrub Area	6.261	4.	Reserve Forest Area	11.893	5.	Agriculture Land	266.374	6.	River/Water body	6.964	Total		328.48
Sl No.	Land use/Land cover Category	Are Statistics (Sq.Km)																								
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xv.	Proposed CSR activities to be in consultation with District Administration.	The proposed CSR activities in consulting with District Administration will be done by the lessee during the operation of mine.																								

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

ITEM NO. 15

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF BERGAON DECORATIVE STONE FOR PRODUCTION OF DECORATIVE STONE (2100CUM/ANNUM) OVER ML AREA 4.135 HA IN VILLAGE BERGAON, TAHASIL BOIPARIGUDA, DISTRICT - KORAPUT, ODISHA OF SMT EARLA LAKSHMI - EC

1. This is a proposal for Environment Clearance of Bergaon Decorative Stone for production of Decorative Stone(2100Cum/Annum) over ML Area 4.135 ha in village Bergaon, Tahasil Boipariguda, District - Koraput, Odisha of Smt Earla Lakshmi.
2. The project falls under category “B” or activity 1 (a) – Mining of Minerals projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. Bergaon Decorative Stone Quarry over an area of 4.135 Ha of Smt. E. Lakshmi is located in village Bergaon under Boipariguda Tahsil of Koraput District Odisha. The lease was granted to Smrt E. Lakshmi W/o E. Chandra Sekhar At- M.G. Road, Po- Jeypore-764001 being the successful bidder for tenure of 20 (Twenty) years from the date on which this executed deed is registered.
4. The Mining Plan has been approved by the Joint Director of Mines, Directorate of Mines, Bhubaneswar, Odisha. under section 2 of Rule 28 (4) of OMMC, 2016 as per clause 5.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

5. The last modification of approved mining plan under rule OMMC,2004 was made during 2013-14 to 2017-18 .Present modification of the approved mining plan over 4.135 ha under Rule 21 of OMMCR,2016 for three years of the scheme period 2020-21 to 2022-23 was approved by Directorate of Mines, Odisha, Bhubaneswar.
6. The present Mining scheme is prepared for 5 years (2018-19 to 2022-23) under rule 18 of Granite Conservation & Development Rule 1999 with progressive Mine closure plan under Rule 21 of OMMC Rumle,2016.
7. Thereafter Mining operation has been suspended by Deputy Director Mines, Koraput vide letter no 492/Mines dated 11.04.2017 for want o permission for Surface Operation.
8. Permission for Surface Operation has been granted by Collector, Koraput vide letter no 439 /Mines dated 07.01.2021.
9. In order to restart the operation Environmental clearance sought as per provision of EIA notification 2006 and amendment thereof.
10. **Location and Connectivity** - The lease area under reference featured in the Survey of India Topo sheet no. 65J/5 is on Khata No 95, 87, 290 Plot No. 1802/p, 1803/p, 1839/p, 1840/p, 1840/2333/p, 1931/p, 934, 1935/p, 1936/p .The geo corordinates of the lease area is 18°45'57.04"N to 18°46'03.06"N & 82°22'01.2"E to 82°22'13.0"E.The area is located 35 km from District Headquarters Koraput and 398 Km from State Capital Bhubaneswar. Nearest railway stations is at Jaypore at an distance of 25 KM(NE) and there is Koraput Railway Station at 45km distance away from the location. The lease area can be approached from SH: 25 & NH: 326 (Jaypore highway) at a distance of 6.6 Km & 7.0 Km. Nearest Airport is Jay pore Airport which is at a distance of 24 Km. There is neither seasonal nor perennial nala within the lease area. Drainage system in the region is dendritic. Surface runoff water in the region will be discharged to the natural drainage course.
11. **Reserve Estimation as on 10.12.2019** – Mineable reserves has been updated as follows –

Category	Code	Minable Reserve	Grade
Proved	121	28850	Decorative Stone
Probable	122	19494	
Total (Demonstrated)		48344	

12. The lease has proposed to excavate a total of 5985 cum of decorative stone and 2100 cum (max) annually from Bergaon Decorative Stone Quarry.The method of mining is Open cast semi-mechanized.
13. Life of Mines is 24 years.
14. A total of 10260m3 waste is likely to be generated during the plan period.
15. **Power requirement:** Power requirement is 100 KVA shall be required for lighting during night time and shall be taken from the State Grid. Necessary permission shall be taken after commencement of the project. Diesel will be used for running of equipments during mining operation. It is estimated that 1 KLD of diesel will be required and same shall be procured from local pump station.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

16. **Water requirement:** Water requirement for the project is 9 KLD for domestic, plantation & dust suppression which will be sourced from Govt sources of water.
17. **Green Belt Development:** About 4000 saplings of local species will be planted over an area of 1.207 ha in 7.5m wide safety zone along lease boundary.
18. **Employment Potential:** Total manpower requirement is 32 no.s. Administrative & supervisory personnel will be 6 numbers and 26 workers will be employed per day under skilled, semi-skilled & un-skilled category in the quarry. Indirect employment through creation of shops/stalls, hired vehicles etc. also can be generated to full fill the day-to-day requirements of the mining personals.
19. The cost of the project is ` 119 lakhs. EMP capital cost of the project is 19.0 Lakh. EMP Recurring cost is 10.90Lakh/Annum. CSR Budget is 11.50 lakh/Annum
20. The proponent has made a presentation on the proposal before the Committee 18.05.2022.
21. The SEAC in its meeting held on dated 18.05.2022 decided to take decision on the proposal after receipt of the following information / documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent												
i.	Year wise production details of mine duly certified by mining officer.	<p>It is declared that .production was achieved as follows and same has been authenticated by Joint director of Mines in the approved mining plan(concern page attached as annexure-1), production achieved during 2013-14 to 2015-16 given below:</p> <table border="1"> <thead> <tr> <th>year</th> <th>Production achieved (in Cum)</th> </tr> </thead> <tbody> <tr> <td>2013-14</td> <td>49.099</td> </tr> <tr> <td>2014-15</td> <td>358.104</td> </tr> <tr> <td>2015-16</td> <td>253.226</td> </tr> <tr> <td>2016-17</td> <td>0</td> </tr> <tr> <td>Total</td> <td>660.429</td> </tr> </tbody> </table> <p>As same department has already authenticated the production quantity, we request your office for consider the production quantity mention in the mining plan.</p>	year	Production achieved (in Cum)	2013-14	49.099	2014-15	358.104	2015-16	253.226	2016-17	0	Total	660.429
year	Production achieved (in Cum)													
2013-14	49.099													
2014-15	358.104													
2015-16	253.226													
2016-17	0													
Total	660.429													
ii.	Cluster certificate from the Mining Officer that there is no mines within 500 meters of proposed quarry.	It is declared by Mining Officer that there is no other non-operating mines within 500 meter form mines boundary in Checklist issued (sl no 17). The copy of checklist attached as Annexure- 2 .												
iii.	Brief write up why the case will not be treated under Violation category.	<p>Initially Deputy Director Mines has issued permission for mining over the project as per the approved mining plan, we have produced very less in comparison to approved quantity as follows:</p> <table border="1"> <thead> <tr> <th>year</th> <th>Production achieved</th> <th>Production target in</th> <th>Less produced</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	year	Production achieved	Production target in	Less produced								
year	Production achieved	Production target in	Less produced											

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent			
			(in Cum)	Cum)	quantity(in Cum)
		2013-14	49.099	2022	1972.901
		2014-15	358.104	2056	1697.896
		2015-16	253.226	2117	1863.774
		2016-17	0	2149	2149
		Total	660.429	8344	7683.571

The statistics show that only 7.91 % of production was done in comparison to approved quantity as per mining plan. The same quantity also sold by paying the royalty to Government of Odisha. However we have also taken all environmental measures as per proposed in mining plan for producing 100 % production., and produce only 7.91 % So we have not emit any pollutants during production.

Considering the information furnished and the presentation made by the proponent, the SEAC recommended for grant of Environmental Clearance with stipulated conditions as per **Annexure – H**.

ITEM NO. 16

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR KALA BARRAGE PROJECT AT VILLAGE KALIAPAL, BLOCK-BARKOTE, TEHSIL-BARKOTE IN THE DISTRICT OF DEOGARH WITH CULTURABLE COMMAND AREA (CCA) – 4050 HA OF DEPARTMENT OF WATER RESOURCES, GOVT. OF ODISHA, (TOR).

1. Proposal of Kala Barrage Project at village Kaliapal, Block-Barkote, Tehsil-Barkote in the district of Deogarh with Culturable Command Area (CCA) – 4050 ha of Department of Water Resources, Govt. of Odisha was discussed in the SEAC meeting held on 29.09.2018. The SEAC had recommended for issue of ToRs for conducting detailed EIA study.
2. The proponent has requested to consider the project as category B2 as per MoEF&CC, Govt. of India notification vide S.O. (E) 3181, dated 14.08.2018.
3. The SEAC in its meeting held on 10.10.2018, decided to take decision on the proposal after receipt of the following information/ documents from the proponent:
 - (i) Detailed EMP as stipulated in MoEF&CC, Govt. of India notification vide S.O. (E) 3181, dated 14.08.2018.
 - (ii) Status of Forest Clearance for forest land involved in the barrage project.
4. The proponent has uploaded the clarification letter issued by SEAC vide letter no: 937 (3), dated 16.11.2018 in online on 29.11.2019 as compliance.
5. The SEAC in its meeting held on 24.12.2019 decided to ask the proponent to submit the required information / documents as requested vide letter no. 937 (3), dated 16.11.2018.
6. The proponent has not yet complied to the letter as requested at para 4 above.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

7. This project proposal was initially of 2018 i.e. during the previous SEAC and the queries raised by us have not yet been complied.
8. The SEAC in its meeting held on dated 12.04.2022 decided to delist the proposal from online system and return the file to SEIAA, Odisha for further action.
9. The Project proponent has applied fresh application for Environment Clearance and submitted the clarification asked by SEAC vide letter no: 937 (3), dated 16.11.2018.
10. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i.	Detailed EMP as stipulated in MoEF&CC, Govt. of India notification vide S.O. (E) 3181, dated 14.08.2018.	Copy of EMP submitted.
ii.	Status of Forest Clearance for forest land involved in the barrage project.	Stage – I Forest Clearance has been approved by MoEF & CC vide letter no.5-ORC451/2021-BHU dated 22.03.2021.

11. The SEAC opined that the application, ToR, Baseline data collection, Public hearing, Grama sabha etc. is during the year 2018 the query raised by SEAC was not complied till April 2022 and hence was recommended to delist by SEAC now that they have submitted query compliance report this needs to be verified on ground by a sub-committee of SEAC. The site visit for this kind of river valley projects (Barrage) involving thousands of hectares of land including forest land etc. needs to be critically evaluated from Environment, Biodiversity and safety angle. Hence, a site visit is proposed before consideration of EC.

After detailed discussion, the SEAC recommended to consider the proposal as category B2 as per as per MoEF&CC, Govt. of India notification vide S.O. (E) 3181, dated 14.08.2018 and to grant Environmental Clearance with stipulated conditions as per **Annexure – N** and following specific conditions.

- i) The Environmental Management Plan (BMP) shall be strictly adhered to as submitted in the EI A/EMP reports. The budgetary provisions for implementation of EMP, shall be fully utilized and not to be diverted to any other purpose. In case of revision of the project cost or due to price level change, the cost of EMP shall also be updated proportionately.
- ii) After 5 years of the commissioning of the project, a study shall be undertaken regarding impact of the project on the environment. The study shall be undertaken by an independent agency.
- iii) Conservation plan for Schedule I species shall be implemented as approved by the CWLW.
- iv) Any other clearances / permission from any other organization / department including NMCG, as applicable to the proposed project shall be obtained.
- v) Solid waste generated, especially plastic waste, etc. should not be disposed of as

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

landfill material. It should be treated with scientific approach and recycled. Use of single-used plastics may be discouraged.

- vi) Land acquired for the project shall be suitably compensated in accordance with the law of the land with the prevailing guidelines. Private land shall be acquired as per provisions of Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013.
- vii) Necessary permission to be obtained for quarrying construction materials, if any required, for the project as per the EIA Notification, 2006 and as amended thereof.
- viii) The clearance is valid for period of 13 years from the date of issue of this letter for commissioning of the project.

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

ITEM NO. 17

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S DEVAVRAT HOMES PVT. LTD. FOR RESIDENTIAL BUILDING (2S+9) ON PLOT NO. 2428/3376, PLOT AREA - 6,555.91 SQM., LOCATED AT KALARAHANGA, BHUBANESWAR WITH TOTAL BUILT UP AREA - 30,629 SQM OF MRS. SUNITA CHOUDHARY (MANAGING DIRECTOR) – EC

1. This is a proposal for Environment Clearance of M/s Devavrat Homes Pvt. Ltd. for Residential Building (2S+9) on Plot No. 2428/3376, Plot Area - 6,555.91 sqm., located at Kalarahanga, Bhubaneswar with total built up Area - 30,629 sqm of Mrs. Sunita Choudhary (Managing Director).
2. The project falls under category “B” or activity 8 (a) - Building and Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. **Location and Connectivity** - M/s Devavrat Homes Pvt. Ltd. proposes for Proposed Residential Project [2S+9 Floors (Block-2) over Revenue Plot No. 2428/3376 at Mouza Kalarahanga under Bhubaneswar Municipal Corporation, Bhubaneswar, Khorda, Odisha. The geographical coordinates are Latitude-20°21'29.30"N and Longitude- 85°50'56.00"E. The project will be developed on the land measuring 6,555.91 sqm or 1.62Acres or 0.6555 Ha at Mouza-Kalarahanga, Dist:- Khorda, Odisha. The nearest airport is Bijupattanaik Airport which is 12.28km away from the project site. Bhubaneswar railway station is 10 km away from the project site. Mancheswar Junction station is 4 km away from the project site. Patia railway station is 1.4 km away from the project site. Nearest forests are Chandaka RF – 10.40 Km, Bharatpur PF- 6.40km, Jagannath Prasad RF – 5.62 KM, Nandankana Zoo- 4.52 Km. Nearest Water bodies are Burhi nala/ Gangua Nala- Near to project site, Daya Canal – 0.85 KM, Kuakhai River- 2.73 KM.
4. The site is coming under development plan of Bhubaneswar Development Authority.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

5. The area statement for the project are –

Particulars	Area (in m ²)
Plot Area	6,555.91 m ² , or 1.62Acres
Proposed Ground Coverage	2590.28 m ² (39.41% of the plot area))
Landscape Area	1376.76 m ² (21 % of the plot area)
Area of internal roads	1928.97 (29.42% of the plot area)
Area of STP & Sewerage and Other Services	659.9 (10.7 % of the plot area)
Parking space provided in Stilt area	7021.748 sqm
FAR Area	23607.346 Sqm.
Total built up area	30,629.09 sqm
Maximum height of building	29.9 m
Total no. of Dwelling Units	249 Units
No. of Floors	(Upper Stilt +Lower Stilt+9 Floors)
DG Set	1no of 200 KVA
Total Project Cost	55 Cr

6. **Power requirement:** The power supply will be supplied by TPCODL (TP CENTRAL ODISHA DISTRIBUTION LIMITED).The power demand for the project is 1250 kw and power backup incase of emergency is provided by 200KV DG sets.
7. **Water requirement:** During operation phase water will be sourced from Ground water /Public Health Department. Total Fresh Water requirement is 97 m³/day. Total Flushing Water requirement is 60 m³/day. Total Water requirement is 156 m³/day (fresh water + flushing water). Waste water generate is 125 m³/day. Treated water recovered is 100 m³/day. Reuses of treated water 100 m³/day (during Dry Season) and during monsoon season 25 m³/day of surplus treated waste water discharge to Municipal Drain.
8. **Waste water details:** The project will generate approx. 125 KLD of wastewater. The wastewater will be treated in an onsite STP of 200 KLD capacity.
9. Total 3 Rain Water Harvesting pits will be constructed at different locations.
10. **Parking Requirement:** Parking Area Required = 25 % of Total FAR Area = 5902 sqm. And Parking Area Provided = 30 % of the FAR Area = 7022 sqm. Total ECS Provided=351 (including Visitors Parking (20% of total parking provided)).
11. **Fire fighting Installations:** Fire fighting system will be installed as per recommendation of the Fire fighting Officer, Odisha and as per the guideline of NBC (part-4).
12. **Green Belt Development:** Total green and open area measures 1376.74 sqm (approx. 21 % of total area). Trees like Azadirachta indica, Cassia fistula, Terminalia arjuna, Butea monosperma etc. and flowering and ornamental plants have been proposed to be planted

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

inside the premises. Parks will also be developed by the management. The suggested plant species consisting of large trees, small trees and green lands will be planted.

13. **Solid Waste Management:** During the operation phase, waste will comprise domestic waste. The solid waste generated from the project shall be mainly MSW (Municipal solid waste) approx. 591.48 kg/day, Following arrangements shall made at the site in accordance to Municipal Solid Wastes (Management and Handling) Rules, 2000 and amended Rules, 2016. The total biodegradable solid waste will be 357 kg/day and total non biodegradable solid waste will be 234.36 kg/day. This will be collected in separate colored bins. Proper waste management practices will be adopted during the collection, storage and disposal of the generated solid waste and construction and demolition waste.
14. The cost of the project is ` 55 Crores.
15. The Environment consultant **M/s Visiontek Consultancy Services PVT. LTD., Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee 07.05.2022.
16. The SEAC in its meeting held on dated 07.05.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent followed by site visit by the sub-committee of SEAC.
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
i.	Pedestrian Pathway to be provided and shown in layout.	Pedestrian Pathway has been shown in the layout Plan attached as Annexure-1 .
ii.	Internal drain network with dimension in the unit layout to be submitted along with dimensions and its connectivity.	<p>Inside the project boundary, all Internal Drain are Pipe Drain of Dia 300 MM. For water collection therein, Chamber with Iron Grating shall be provided at close spacing (8-10 M). They shall collect all surface water to pipe drain.</p> <p>All Internal Drains of Project shall connect to outside Municipal drains.</p> <p>Layout of Drain inside the Project Boundary is shown in Sketch Map.</p> <p>In terms of Clause 5 of ODA Planning & Building Standards 2020, for all building Projects External Infrastructure Plan has to be approved by Plan Sanctioning Authorities. As External Infrastructure Plan is site specific, these are issued by Authorities in 2nd stage i.e, after approval Building Plan (Excluding External Infrastructure Plan).</p> <p>The External Infrastructure Plan shows Cross Section and alignment of drain. Sketch of plan submitted by us is enclosed. The dimension of drain in sketch map is the dimension normally asked by Plan Sanctioning Authorities.</p> <p>The External Infrastructure Plan attached as Annexure-2.</p>
iii.	Start and fall out the outside	Drain are to constructed by PP, as per External

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	drain to which the treated water will be discharged to be intimated including the permission of the authority of the drain to take the additional load	Infrastructure Plan approved by Plan Sanctioning Authorities and the approval of plan itself is the permission to construct the same on Ground.
iv.	Solar calculation details with generation and consumption in terms of % of total power.	The Solar Power Demand For Campus area Light , Main Gate Light will be 50 KW (2% of total demand) . Layout map (Attached as Annexure-3) showing location of solar light provided inside the project premises.
v.	Increase in number to plantation to reduce quantity of treated water to drain.	Total green area measures 1376.7 m2 (21 % of the plot area). No. of Trees Required: 82 Nos. (As per ODA and MoEF guidelines). The space required for plantation is 492 sqm. But we have provided 1376.7 sqm space for plantation, which is enough for plantation of more than 200. Trees like Azadirachta indica, Cassia fistula, Terminalia arjuna, Butea monosperma etc. and flowering and ornamental plants have been proposed to be planted inside the premises. During dry season 25 KLD of treated water will be used for development of greenbelt.
vi.	Proposed green belt details with stretch / dimension / trees of plantation & the species be submitted.	Green belt Plan is attached as Annexure-4 .
vii.	Layout of drain to be constructed by PP with permission letter from concerned authority along with ownership of related land details.	Layout Plan of proposed drain, as part of External Infrastructure Development Plan and along with the permission to construct is accorded by Plan Sanctioning Authority
viii.	Detail Traffic study report to be submitted from an Institute of repute.	Traffic study report is attached as Annexure-5 .
ix.	Copy of Power of Attorney of M/s Devavrat Homes Pvt. Ltd for ownership of the private lands.	Submitted Herewith as Annexure-6 . Conversion of kism of land attached as Annexure-6-A .
x.	Undertaking by PP that construction work has not been started.	Affidavit Enclosed as Annexure-7 .
xi.	Source of water to be clearly confirmed and water quality of both ground water and public water (pipe supply) be submitted.	PH department which according NOC for the project has said that Ground Water is to be used for project. Permission to CGWA for extraction of Ground Water shall be obtained before Occupancy of Project. As a matter of fact Ground Water are to used only for Apartment Residents and not for construction and hence approval of CGWA for extraction of Ground Water shall be obtained on completion of Project and just before its Occupancy.
ii.	Basis of calculation of ECS for four-wheeler and two wheelers be submitted	Adequate provision will be made for car/vehicle parking at the project site. There shall also be adequate parking provisions for visitors so as not to disturb the traffic and

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent																				
		<p>allow smooth movement at the site. Total parking provided=7021.748 m² 226 ECS for 4 wheelers & 118 ECS for 2 wheelers.</p> <table border="1"> <thead> <tr> <th>FLOOR AREA</th> <th colspan="3">AREA IN Sqm.</th> </tr> <tr> <td></td> <td>F.A.R area</td> <td>Parking / Circulation</td> <td>B/A Area</td> </tr> </thead> <tbody> <tr> <td>Stilt floor (Lower)</td> <td>147.44 Sqm.</td> <td>3510.874 Sqm.</td> <td>3658.314 Sqm.</td> </tr> <tr> <td>Still floor (Upper)</td> <td>147.44 Sqm.</td> <td>3510.874 Sqm.</td> <td>3658.314 Sqm.</td> </tr> <tr> <td></td> <td>Total</td> <td>7021.748 sqm.</td> <td></td> </tr> </tbody> </table> <p>FAR Area=23,607 sqm Parking Required =25 % of Total FAR Area=5902 sqm Parking Area Provided =30 % of the FAR Area=7022 sqm Total ECS Provided=351 (including Visitors Parking (20% of total parking provided))</p>	FLOOR AREA	AREA IN Sqm.				F.A.R area	Parking / Circulation	B/A Area	Stilt floor (Lower)	147.44 Sqm.	3510.874 Sqm.	3658.314 Sqm.	Still floor (Upper)	147.44 Sqm.	3510.874 Sqm.	3658.314 Sqm.		Total	7021.748 sqm.	
FLOOR AREA	AREA IN Sqm.																					
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Still floor (Upper)	147.44 Sqm.	3510.874 Sqm.	3658.314 Sqm.																			
	Total	7021.748 sqm.																				

Considering the information furnished and the presentation made by the consultant, **M/s Visiontek Consultancy Services PVT. LTD., Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – O** in addition to the following specific conditions.

- i) “Khatian” (Patta after Mutation) for the entire land from the appropriate Revenue Authority with ‘Kisam’ as Gharabari shall be obtained along with ownership before which construction work shall not start. **The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.**
- ii) **The Proponent shall obtain permission/NOC from Executive Engg (PHD) and / or from the appropriate authority for disposal of Sewage and treated effluent to the nearest drain without which the Proponent will not start construction work. Also in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.**
- iii) The proponent shall use solar energy of 5% as proposed.
- iv) To reduce discharge of treated water to open drain, the proponent shall use more water for increased number of trees proposed to be planted in the green belt area & shall also utilize this treated water for car washing, floor washing to minimize the surplus discharge to drain.
- v) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- vi) **All the compliances submitted/ committed by PP (s) shall be strictly adhered to by them.**

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

However, the Sub-Committee of SEAC will visit the site within 3 months from the date of issue of Environmental Clearance to verify the progress of the project as well as conditions stipulated in Environmental Clearance. However, either during the visit of the SEAC Sub-committee and/or at any time, if it is noticed that stipulated conditions on which EC is granted is not in place or found otherwise, steps will be taken for revocation of EC granted.

ITEM NO. 18

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. SHEETAL REAL ESTATE PVT. LTD. FOR RESIDENTIAL-CUM-COMMERCIAL BUILDING PROJECT OVER AN BUILT UP AREA 29298.50 SQMT LOCATED AT MOUZA - HULURUSINGHA, DIST. ANGUL OF SRI SUNIL AGARWAL - EC

1. This is a proposal for Environment Clearance of M/s. Sheetal Real Estate Pvt. Ltd. for Residential-cum-Commercial Building Project over an built up area 29298.50 sqmt located at Mouza - Hulurusingha, Dist. Angul of Sri Sunil Agarwal.
2. The project falls under category “B” or activity 8 (a) - Building and Construction projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. M/s Sheetal Real Estate Pvt. Ltd. proposes a Residential-cum-Commercial Building project located at Plot no. 577/2819, Khata No. 302/821, Plot no. 542/2561, Khata No. 302/850, Plot no. 578 & 578/1937, Khata no. 302/893 Plot no. 577/2740, 577/2741 & 577/2851 Khata no. 302/896, Plot 577/2689, Khata no. 302/977, Plot no. 540 & 541 Khata no. 302/985, at Mouza - Hulurusingha, Dist. - Angul, Odisha on a land measuring 1.131 acres or 4578.437 m². The geographical coordinates are Latitude: 20°50'24.22"N and Longitude: 85°5'12.30"E. The nearest railway station is Angul Railway Station approx. 2.7 km from the project site and Savitri Jindal Airport is at a distance of approx. 8.5 km from the project site. Nearest NH/SH is SH-63 at 0.6km.
4. The site is coming under development plan of Talcher-Angul-Meramandali Development Authority. There are total 1 residential Tower (B2 + B1 + G + 12) and commercial area with retail shops.
5. The detailed area statement of the building is –

S. NO.	PARTICULARS	AREA (SQ.M.)
1.	Total Plot area	4,578.437
2.	Proposed Road Area	69.0
3.	Net Plot Area	4,509.43
4.	Permissible Ground coverage (@40% of the net plot area)	1,803.78
5.	Proposed Ground coverage (@ 37.92 % of net plot area)	1,710.27
6.	Permissible F.A.R (@ 5 of net plot area)	22,601.22
7.	Proposed F.A.R (@ 5 of net plot area)	22,601.22
	a. Residential FAR Area (@75.32% of the proposed FAR)	17,024.52
	b. Commercial FAR Area (@24.67% of the proposed FAR)	5,576.70

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

8	Proposed Non FAR Basement Area (B1+ B2)	6,697.28 6,697.28
9	Total built up Area (7+8)	29,298.50
10	Total Proposed Parking Area (Basement B1 + Basement B2 + Open Parking)	6,811.16
11	Maximum Height of the Building (m)	40.00
12	Landscape Area (@ 24.8% of plot area)	1,118.33 [Taking 901.88 m² (@20 % of net plot area) as green belt area and 216.45 m² (@4.8 % of net plot area) as lawn area]

6. **Power requirement:** The power supply will be supplied by State Electricity Board. The requirement load for the project will be approx. 1,042.17 kVA. There is provision of 2 nos. of DG sets of total 640 kVA (2x 320 kVA) capacity for power back up. Silent DG sets (Radiator cooled). Separate generator yard will be constructed for the residential block.
7. **Water requirement:** The total water requirement will be met through Ground water which is approx. 99 KLD, out of which total domestic water requirement is 95 KLD. The total domestic water will be 95 KLD, out of which fresh water requirement is approx. 57 KLD & flushing water will 38 KLD.
8. **Waste water details:** The project will generate approx. 84 KLD of wastewater. The wastewater will be treated in an onsite STP of 100 KLD capacity. The treated water (76 KLD @ 90% of total waste water) will be reused for flushing (38 KLD), horticulture (4 KLD). Surplus treated water during dry season (34 KLD); monsoon season (37 KLD) and winter season (36 KLD) will be discharged to external sewer with the requisite permission.
9. Total 18 Rain Water Harvesting pits will be constructed at different locations.
10. **Parking Requirement:** Total parking area requirement will be 6,486.81 m² / 237 ECS will be provided.
11. **Fire fighting Installations:** Fire fighting system will be installed as per recommendation of the Fire fighting Officer, Odisha and as per the guideline of NBC (part-4).
12. **Green Belt Development:** Green belt will be developed over an area of 1,118.33 m² i.e. 24.8% of the plot area by using the local species like Radhachuda, Nageswar, Akash Neem, Ashok, Polanga, Karang, Bela, Pijilu, Kaniara, Tagar, Hena, etc.
13. **Solid Waste Management:** From the residential complex, solid wastes in form of food wastes from kitchen and miscellaneous wastes will be generated @ 0.45 kg/person/day, which will be about 479 kg/day.

S. No.	Category	Norms (Kg/capita/day)	Waste generated (kg/day)
1.	Residents (500)	@ 0.5	250
2.	Staff (265)	@ 0.25	66.25
3.	Visitors (1007)	@ 0.15	151.05

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

4.	Landscape waste (0.276acre)	@ 0.2 kg/acre/day	0.05
5.	STP sludge	Waste water x 0.35 x B.O.D difference/1000	11.46
TOTAL SOLID WASTE			478.8 kg/day say 479 kg/day

14. The cost of the project is ` 65.4 Crores.
15. The Environment consultant **M/s Grass Roots Research And Creation India (P) Ltd., Noida** along with the proponent has made a presentation on the proposal before the Committee on 13.04.2022.
16. The SEAC in its meeting held on dated 13.04.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent followed by site visit by the sub-committee of SEAC.
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
i.	Layout map superimposing the greenbelt and rain water harvesting pits.	Layout map superimposing the greenbelt and rainwater harvesting pits is attached as Annexure I .
ii.	Internal drain network with dimension in the unit layout to be submitted along with dimensions and its connectivity.	Internal drain network with dimension in the unit layout is attached as Annexure II .
iii.	Start and fall out the outside drain to which the treated water will be discharged to be intimated including the permission of the authority of the drain to take the additional load	Location of start and fall out the outside drain in layout is attached as Annexure II . We are in process to obtain the permission of the authority of the drain for the additional load to be discharge in the drain. Affidavit regarding same is attached as Annexure III .
iv.	Solar calculation details with generation and consumption in-terms of % of total power	Solar Power consumption is 5% of the total demand load. Details are given in attached Annexure IV .
v.	Part of the land is found to be "Sarad" as per the land documents submitted by PP. The land record of the whole land shall be converted to " Gharabari" as per the Sabik record before start construction.	Location of our proposed project comprises Plot no. 540, 541, 542, 577 & 578 which is "Gharabari" as per land record. Land documents showing the land record as "Gharabari" is attached as Annexure V . Land record showing "Sarad" excluding Plot nos. 540, 541, 542, 577 & 578 in attached Land documents are outside from our proposed project boundary.
vi.	Fresh water requirement is stated to be the source is Ground water. River located at a	NOC from CGWA is obtained and is attached as Annexure VI .

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	distance of about 700 mtrs from the project site. If it is denied / not agreed to by the authority (s) concerned, then necessary 'NOC' from CGWA & permission from W.R deptt, Govt of Odisha to be submitted for drawl of required quantity of ground water.	
vii.	Provision of parking is too inadequate, besides necessity for provision for parking for two wheelers / Bicycles including for visitors / floating population. This needs to be revisited and re-submitted accordingly.	Revised parking plan is attached as Annexure VII.
viii.	Calculation of RWHP (No of recharging pits) be revisited, taking into consideration the highest hourly rain fall based on last 30 years date (logical climate date), Run-off co-efficient and retention (hold) time and re-submitted.	Revised calculation of RWHP is attached as Annexure VIII.
ix.	Proposed green belt details with stretch / dimension / trees of plantation & the species be submitted.	Proposed green belt details with stretch/ dimension/trees of plantation & the species is given in attached Annexure I.
x.	Basis of no of residents, staff and visitors indicated/ arrived at and accordingly, water consumption, waste water generation, water balance to be revisited and re submitted.	Revised water calculation, wastewater generation & water balance is given in attached Annexure IX.
xi.	Layout drawing showing separate parking for commercial, residential and floating population with separate entry and exits for the same.	Layout drawing showing separate parking for commercial and residential including floating population with separate entry and exits for the same is attached as Annexure VII.
xii.	Traffic study report at intersecting points to be submitted.	Traffic study report is attached as Annexure X.
xiii.	Copy of agreement between Authorized agencies and PP to take the non biodegradable waste.	That we are in the process to obtain agreement from authorized agency for disposal of non-biodegradable waste. Affidavit regarding same is attached as Annexure III.
xiv.	Water analysis report to be submitted and mitigation measures if fluoride content found to be high in water.	Water analysis report is attached as Annexure XI.
xv.	Details about recharge mechanism of groundwater and design of rain water harvesting pits.	Details about recharge mechanism of groundwater and design of rainwater harvesting pits is given in attached Annexure VIII.
xvi.	Increase in greenbelt to reduce lesser amount of treated water discharge to drain.	We have increased green belt to reduce lesser amount of treated water discharge to drain.
xvii.	Preventive measures taken to control air pollution.	Preventive measures taken to control Air Pollution is given in attached

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		Annexure XII.
xviii.	Confirmation for shift of DG set to North-West corner in reference to prevalent wind direction and location of towers/commercial complex be submitted showing in the layout map.	Layout map showing location of DG set in North- West corner is attached as Annexure XIII

Considering the information furnished and the presentation made by the consultant, **M/s Visiontek Consultancy Services PVT. LTD., Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – P** in addition to the following specific conditions.

- i) “Khatian” (Patta after Mutation) for the entire land from the appropriate Revenue Authority with ‘Kisam’ as Gharabari shall be obtained along with ownership before which construction work shall not start. **The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.**
- ii) **The Proponent shall obtain permission/NOC from Executive Engg (PHD) and / or from the appropriate authority for disposal of Sewage and treated effluent to the nearest drain without which the Proponent will not start construction work. Also in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.**
- iii) The proponent shall use solar energy of 5% as proposed.
- iv) To reduce discharge of treated water to open drain, the proponent shall use more water for increased number of trees proposed to be planted in the green belt area & shall also utilize this treated water for car washing, floor washing to minimize the surplus discharge to drain.
- v) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- vi) **All the compliances submitted/ committed by PP (s) shall be strictly adhered to by them.**

However, the Sub-Committee of SEAC will visit the site within 3 months from the date of issue of Environmental Clearance to verify the progress of the project as well as conditions stipulated in Environmental Clearance. However, either during the visit of the SEAC Sub-committee and/or at any time, if it is noticed that stipulated conditions on which EC is granted is not in place or found otherwise, steps will be taken for revocation of EC granted.

ITEM NO. 19

PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF NAYAGARH IRON ORE MINES OF M/S K.C PRADHAN FOR ENHANCEMENT IN PRODUCTION CAPACITY FROM 80,000 TONNES / ANNUM TO 3,00,135 TONNES /ANNUM OF IRON ORE WITH OPENCAST SEMI-MECHANIZED MINING METHOD OVER ML AREA 24.570HA. LOCATED AT VILLAGE NAYAGARH, DIST – KEONJHAR OF SRI SIDHARTH PRADHAN (POWER OF ATTORNEY HOLDER) – EC

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

1. The proposal is for Environmental Clearance of M/s K.C Pradhan for Nayagarh Iron Ore Mines for enhancement in production capacity from 80,000 tonnes / annum to 3,00,135 tonnes /annum of Iron ore with Opencast Semi-mechanized Mining Method over ML area 24.570ha. located at village Nayagarh, Dist – Keonjhar.
2. As per the EIA Notification 2006(and amendment thereof), the project fall activity wise under 1(a) and Category 'B' with area threshold limit.
3. Nayagarh Iron Ore Mine spreads over an area of 24.570 hectares in village Nayagarh under Champua sub-division in Kendujhar District, Odisha. Sri K.C Pradhan, Mining Lessee, Plot No.1262, Road-8, Unit-9, Bhubaneswar-751022 had been granted a prospecting license (P.L) over an area of 33.22 hectares for iron ore in Nayagarh village under Jhumpura Tahsil of Champua sub-division in Kendujhar District, Odisha for a period of two (2) years from 31.07.2000 to 30.07.2002. Subsequently, Lessee filed the application on 09.11.2000 for grant of Mining Lease over an area of 28.086 hectares out of 33.22 hectares. Department of Steel & Mines, Govt. of Odisha had issued the terms & conditions vide letter No.III(A)SM-4/2002-03 on 08.01.2004 for grant of M.L area for iron ore over 27.794 hectares out of 28.086 hectares.
4. Environmental Clearance was accorded In favour of Nayagarh Iron Ore Mine of Shri K.C Pradhan (ML area 24.570 Ha.) for 5 years vide no.598 dated 16.12.2010 for production @80,000 tonnes / annum of Iron Ore and subsequently same was extended for 30 years or life of the mine whichever is less vide letter No.3434/SEIAA dated 30.05.2015 from State Environment Impact Assessment Authority (SEIAA), Odisha.
5. Mining has been going on obtaining Consent to Establish order vide No.16760/IND-II-CON-4378 dated 25.07.2012 and Consent to Operate order from the State Pollution Control Board (SPCB), Odisha vide Consent Order No.1050/IND-I-CON-6398 dated 18.01.2017 for production of iron ore @80,000 tonnes / annum.
6. Meanwhile Mining Plan has been modified along with Progressive Mine Closure plan under Rule 23 of MCDR,2017 from IBM, Bhubaneswar vide letter no MPM/A/05-ORI/BHU/2020-21 date 15.07.2020 for production of 3,00,135 tonnes /annum Iron ore with Opencast Semi-mechanized Mining Method.
7. In order to comply the provision of EIA Notification 2006 and amendment thereof, ToRs to prepare the EIA/EMP report required for obtaining environmental clearance for the proposal of Enhancement in production capacity from 80,000 TPA to 3, 00,135 TPA of Iron ore with Opencast Semi-Mechanized Mining Method at Nayagarh Iron Ore Mines(ML Area 24.570 ha) of Sri K.C Pradhan at Village Nayagarh Dist- Keonjhar, Odisha
8. **Location and Connectivity** - The project is located in Village Nayagarh, Tahasil Jhumpura, District Keonjhar, Odisha. It is bounded by the latitudes from 21°51'30.87" to 21°51'53.46"N & longitudes from 85°25'03.67680" to 85°25'33.83328" E. It falls on part of Survey of India Toposheet bearing No.F45/N5. Nearest accessible Road is Joda via Jururhi around 18 km. Nearest Airport is Bhubaneswar Airport at 183 km and Railway Station is Nayagarh at 3.5 km from Mines. Nearest Town is Joda at 16.3 km and District Headquarters is Kendujhar at 31Km. Nearest water body is Baitarani river is at a distance of 3.5 km from the project.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

9. **Method of Mining** - The Mining shall be carried over an area of 24.570 hectares with opencast method of mining for production of 3, 00,135 tonnes of iron ore per Annum @ 1000 tonne per day. Operation shall be carried out for 300 days per annum. The life of the mine is calculated to be 12 years after the modified review period. Method of Mining/Types of Machinery- Open cast method of mining will continue with the deployment of machines like 100mm dia DTH drill, 1.2m³ capacity excavators, dumpers having carrying capacity of 25 tonnes etc. The mining shall be carried out as per the approved mining plan. Two quarries namely in-situ quarry and float quarry have been developed in the lease area so far but material from float quarry have been exploited out and mining shall be carried out only in situ quarry.
10. **Green Belt** - A total area of 2.465ha. is under safety zone area will be covered under green belt/plantation program.
11. **Blasting** - For conducting blasting operations Site Mix an emulsion /ANFO explosive is being used as column charge with cast booster/ slurry booster as primer.
12. **Waste Generation** - A total of 188,929m³ overburden shall be generated. Out of these, 44,801m³ waste generated in plan period will be disposed off in Dump-1 over an area of 5,490m² or 0.549 hectare at 12m height and remaining 144,128m³ waste will be utilized for back-filling of float quarry over an area of 5.451 hectares at 3m (approx.) thick filling on an average. Well-connected garland drain & boulder wall followed by appropriate settling pond will be provided around it.
13. **Reclamation & Rehabilitation Measures** - Neither reclamation (back-filling & plantation) was proposed in 2018-19 and 2019-20 nor reclaimed during the completed years.
14. **Water Requirement** - Total water requirement of the project is 45000 Litres/day (45 KLD).
15. The Public Hearing meeting was held at the scheduled venue & time i.e on 10.12.2021 (11.00 am) at Mouza Nayagarh (khata. No 235 Plot no. 32/1) in Kendujhar District, Odisha. The meeting was presided over by the Additional District Magistrate, Kendujhar, the representative of State Pollution Control Board, Odisha. Sri Manas Kumar Sahu Mine Manger addressed the committee members and assembled public and made brief presentation about the salient features of the proposed project and 32 persons delivered their views out of 145 attendants. The project was welcomed by the public seeking some developmental activities to be done by project proponent.
16. The Environment consultant **M/s Ardra Consulting Services Pvt. Ltd. A/79,Sahidnagar, Bhubaneswar – 751007** along with the proponent has made a presentation on the proposal before the Committee on 20.04.2022.
17. The SEAC in its meeting held on dated 20.04.2022 decided to take decision on the proposal after receipt of the certain information / documents from the proponent.
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
i)	Chemical composition of subgrades of Iron ore extracted and its utility in existing plant	The Chemical composition of Sub-grade Iron Ore (analysis report attached as Annexure-I). Sub-grade Iron ore will be stacked separately. In future, based upon the

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	and action plan for proposed project. Also quantity of topsoil and overburden shall be reported in tonnes.	market acceptability and its demand, the same shall be sold. 1. Total quantity of Topsoil generated = 3323.463 MT 2. Total Overburden = 66719.646 MT
ii)	Present status of forest area and Forest clearance status in the mining lease.	The total lease area of 24.570ha is forest land. Out of which DLC Forest Land is 22.773 Ha and Sabik kissam is 1.797ha. The entire Forest Area of 24.570 has been approved under section-2 (iii) of FCR out of which 20.310hac. has been approved under section-2(ii) of FCR for mining. Status Forest clearance of the mining lease attached as Annexure-II .
iii)	pH of water may be reanalyzed at a Govt Laboratory and certificate about its use may be submitted.	Analysis Certificate from Government Laboratory of State Pollution Control Board, Odisha, is attached as Annexure-III .
iv)	Brief note on existing de-siltation procedure and future procedure to be adopted. Present silt details (quantity, quality and management) may be provided.	Various surface run-off management structure have been provided at the appropriate locations of the lease area. Check dams & Check weirs have been provided to prevent the flow of silt along with the run-off of the mines. Overflow from these structure is diverted to a settling pond for storage. Similarly, retaining wall with garland drain have been constructed, terminating at a settling pond for effective management of surface run-off. The Silt accumulated / deposited in these structures is periodically removed and dumped in the existing overburden dump. The quantity and quality of silt removed is as follows. Quantity of 6MT has been removed and dumped in the OB dumps. The quality of Silt is as below : 1. Fe : 30% 2. Al ₂ O ₃ : 5% 3. Silica : 2.5% 4. Mn : traces
v)	Comparative note on NEERI compliance compiled in existing unit and proposed for future and submit the photographs of the compliances of the physical features in the existing unit.	Detailed of NEERI compliance with evidence of photographs is attached as Annexure-IV .
vi)	STP installation within premises.	Not Applicable, only 7 persons are proposed to stay within lease area. Waste water generated from domestic purpose for the 7 person is proposed to be disposed through soak pit.
vii)	Since fugitive emissions are in borderline, mitigation measures undertaken to prevent from exceeding the permissible limit.	For control of Fugitive dust emission, the measures are being taken 1. Dry fog system has been installed in the crusher and screening plant 2. Intermittent water sprinkling is carried in the

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		haulage road for dust suppression. 3. Frequency of water sprinkling is regulated based upon traffic movement. 4. Fixed water sprinkler has been provided at the ore stackyard areas. 5. Regular air quality monitoring is carried out to access the dust emission and appropriate step is taken to ensure that the dust emission remains within the prescribed norms. 6. Rock breaker is used in place of secondary blasting. 7. Cemented road leading to the exit gate to help in mitigation dust generation
viii)	Details calculation of Retaining walls dimensions how it arrived.	Retaining walls have been constructed along the lower contour of the working area which also covers the dump area. The dimensions of the retaining walls are in accordance with mining plan duly approved by the Indian Bureau mines. However, the detail dimension of the retaining wall is given below: length = 192m, width = 1m and height = 1.5m.
ix)	Increase of the pollution load due to increase production, if any with mitigation measures to be taken to control them.	After expansion project the pollution load and with mitigation measures attached as Annexure-V .
x)	Brief note on how traffic will be affected within the area after expansion and its management based on findings and recommendation thereof from traffic study if undertaken/to be undertaken through an institute of repute.	Traffic study impact and mitigation measures attached as Annexure-VI .
xi)	Details of greenbelt in existing unit and proposed expansion with images.	Details of greenbelt attached as Annexure-VII .
xii)	Details of Rain water Harvesting system proposed and how it will balance or contribute to water balance. Also, possible reduction of quantity of water proposed (45KLD) by other methods like RWH etc.	Details of Rainwater harvesting system of the mines attached as Annexure-VIII .
xiii)	Detailed calculation on height & dimensions of dump proposed.	The size and dimension of the existing dump shall be based upon the overburden generated / stripping ratio. The amount of OB has been calculated and incorporated in the Mining Plan approved by the Indian Bureau of Mines, a copy of which has been attached in the application. The same shall progress in accordance with mining plan and calculation of dump height & dimensions attached as Annexure-IX .

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
xiv)	Comparative matrix in reference to pollution and environmental parameters with corresponding physical features for existing and proposed expansion in production capacity be submitted.	Comparative matrix in reference to pollution and environmental parameters attached as Annexure-X .
xv)	Slope study (if undertaken) for OB dump for proposed expansion be submitted and if not, the same be undertaken through a reputed Institute and submitted.	Slope study report of the Mines attached as Annexure-XI .
xvi)	How physical features like dump height etc. are arrived at?	Detail of the dump has been calculated based on the mining plan duly approved and certified by Indian Bureau of Mines attached as Annexure-IX .
xvii)	Safety measures against flying Rock proposed.	Flying rocks is generally expected during blasting. In order to minimize generation of flying rocks, controlled blasting procedure is adopted.
xviii)	Safety contingency measures in case of water inundation in rainy seasons in mines pit proposed be submitted.	The possibility of water inundation on working in a hill slope is ruled out. Further, we will not intersect the ground water table as it is much below the mineralized zone.
xix)	Waste utilization details for five years be submitted.	In five years, waste will be dumped at designated Waste Dump site.
xx)	Compliances of EC from Regional office, MoEF&CC and CTO from SPCB be submitted (if not).	Already submitted, a copy of EC and CTO compliance report, however a acknowledgement is attached as Annexure-XII .

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

- a) From the waste analysis it is found that Fe content is 49%. Thus, the proponent needs to utilise the same and stored the unutilised waste ore for future. The quantity and quality to be monitored and recorded periodically.

ITEM NO. 20

PROPOSAL FOR CONSTRUCTION OF PROPOSED FIVE BLOCKS OF (S+10) AND THREE BLOCKS OF (S+9) STOREYED APARTMENT BLOCKS AND ONE STOREYED (G+2) CLUB CUM SOCIETY BUILDING WITH BUILT UP AREA 42746.84 M² AT KESURA, BHUBANESWAR BY M/S STATE BANK OF INDIA STAFF ASSOCIATION (S.B.I.S.A.) (EC).

1. The proposed site of State Bank of India Staff Association (S.B.I.S.A.) is located at Kesura, Bhubaneswar, Odisha. The Geographical co-ordinate of the project site is: Latitude - 20° 16' 27.03" N & Longitude - 85° 52' 35.63" E. BDA has provisionally approved the Building Plan vide letter no. MBP1B-0005/15/BDA, Bhubaneswar, Dated 06.07.2015. The project site is

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

well connected with National Highway NH-203. The nearest railway station is Bhubaneswar Railway station at a distance of approx. 3.5 Km in South West direction. The nearest airport is Biju Patnaik Airport at a distance of approx. 7.1 Km in South West direction from project site. The maximum temperature is about 41.0° C and the minimum temperature is 20.0° C felt in the area. The area receives rainfall from the south-west monsoon. The average annual rainfall in the area is 1452.62 mm. Total Plot Area is 17711.43 m² and total Built up Area 42711.84 m². Total landscape Area is 3542.28 m² (20 %). Total parking area is 10375.0 m². The daily power requirement for the proposed complex is preliminarily assessed as 1870.4 KW source from CESU of Odisha State Electricity Board. In order to meet emergency power requirements during the grid failure, there is provision of two nos. of DG sets having 500 KVA capacities for power back up in the Residential Building Project. Fresh make up of 151.6 m³/day will be required for the project which will be sourced from Ground Water. The proposed capacity of STP is 200 KLD. Total Capital Cost is ` 120 Lakhs. The **Consultant M/s Centre for Envotech & Management Consultancy Pvt. Limited, Bhubaneswar** made a detailed presentation on behalf of the project proponent on 20.02.2016. **The SEAC opined to take decision on the proposal after a field visit by the sub-committee.**

- The site was visited by the sub-committee on dated 11.03.2016. The sub-committee opined that the proposal for discharge of storm water and treated sewerage water is not convincing due to certain reasons. The proponent was requested to clarify the above reasons. They have clarified the reasons and the SEAC verified the same as follows:

Sl. No.	Clarification sought by the sub-committee	Compliance furnished by the proponent	Views of the SEAC
1.	The existing sewerage line is for a specific capacity. It may hardly accommodate the proposed quantum of treated sewerage water. Therefore, storm water disposal through existing sewerage line should not be attempted and the proponent is to propose the arrangement for disposal of storm water for the project site.	The existing sewerage line laid out for the other State Bank of India Staff Association Cooperative Ltd. building, nearby, may not be sufficient to accommodate the additional sewage as well as storm water from the proposed building.	Since the clarification given by the proponent is a deviation from the original application and project report, the unit has to obtain permission from
2.	The members of the society of existing housing complex have to allow the project proponent to use their sewerage line. In view of such arrangement, the project proponent is to submit a MoU/commitment letter from the old society.	The members of the existing housing complex are not consenting to allow additional sewage water through their existing underground pipeline. Hence, it has been decided by the State Bank of India Staff Association Cooperative Ltd. to	Bhubaneswar Municipal Corporation and / or Concerned Authority and approved layout plan of

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

Sl. No.	Clarification sought by the sub-committee	Compliance furnished by the proponent	Views of the SEAC
		laid new underground line to carry treated sewage and storm water with due permission from the local authority, so that it can discharge to Gangua Nallah.	sewerage system and discharge system and resubmit the proposal with necessary modification .
3.	A layout of the sewerage of the existing system sewerage may be submitted only with above compliance.	Sri Ganga Prasad Pattnaik, Chief Executive, State Bank of India Staff Association Co-operative Ltd. has submitted an undertaking that new underground line of required capacity will be laid from the proposed site to Gangua Nallah before completion of the project. They have furnished the layout of the sewerage of the existing system.	

3. The SEAC in its meeting held on 01.09.2016, decided to take decision on the proposal after receipt of the above information / documents from the proponent.
4. The proponent was requested to obtained permission from Bhubaneswar Municipal Corporation and / or concerned authority and also approve layout plan of proposed sewerage system and discharge system and resubmit the proposal with necessary modification.
5. In the meantime, the copy of the letter received from Planning Member, BDA in which they have intimated to the proponent that the external infrastructure development plan i.e. drainage and sewerage disposal plan submitted by the proponent is under scrutiny by the Chief Engineer-cum-Engineer Member, BDA.
6. The SEAC in its meeting held on 09.06.2017 decided to take decision on the proposal after the proponent obtained permission from Bhubaneswar Municipal Corporation and / or concerned authority and also approve layout plan of proposed sewerage system and discharge system and resubmit the proposal with necessary modification.
7. The proponent has intimated the following:
 - (i) The external infrastructure development plan i.e. drainage and sewerage disposal plan submitted by us is under scrutiny by the Chief Engineer-cum-Engineer Member, BDA.
 - (ii) Approval of the drainage and sewerage disposal plan it will take long time and the project is pending for more than one and half year.
8. The proponent has requested to grant conditional Environmental Clearance for aforesaid construction project. They have assured that before completion of the project, they will submit

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

the approved Drainage and Sewerage disposal plan to SEAC/ SEIAA and furnished an undertaking to this effect.

9. The SEAC in its meeting held on 12.01.2018, opined that the Environmental Clearance will be considered after the proponent submits the approval of the drainage and sewerage disposal plan by the competent authority.
10. The proponent has furnished Gram Panchayat NoC letter along with approved drainage and sewerage disposal plan for construction of new drainage line.
11. The MoEF & CC, Govt. of India notification vide S.O. 5733 (E), 14th Nov, 2018 stipulates that local bodies such as Municipalities, Development Authorities, District Panchayats as shall stipulate environmental conditions while granting building permission in respect of building or construction projects with built-up area >20,000 m² to 50,000 m² and industrial sheds, educational institutions, hospitals and hostels for educational institutions 20,000 m² upto 1,50,000 m².
12. The MoEF & CC, Govt. of India notification vide S.O. 5736 (E), 15th Nov, 2018, exempted Environmental Clearance for building and construction project < 50, 000 m² and industrial sheds, educational institutions, hospitals and hostels for educational institutions < 1,50,000 m².
13. The SEAC in its meeting held on 03.12.2018 opined that Environmental Clearance is not required for this project as per the MoEF & CC, Govt. of India notification vide S.O. 5736 (E), 15th Nov, 2018 as the total builtup area is < 50, 000 m² . Hence, proposal was returned to SEIAA.
14. Moreover, the Hon'ble NGT, Principal Bench, New Delhi in O.A. No. 1017/2018, dated 03.12.2018 has stayed the above notifications of MoEF&CC, Govt. of India.
15. The SEAC in its meeting held on dated 13.12.2018 recommended that the SEIAA, Odisha may consider to request the MoEF&CC, Govt. of India regarding the operational part of the above notifications of MoEF&CC, Govt. of India in view of directions of Hon'ble NGT, Principal Bench, New Delhi before taking a decision on the proposals under the above category.
16. During the last meeting of SEIAA held on 05.04.2019, the authority had decided to send the building and construction projects under above category to SEAC, Odisha for appraisal as per the OM No. 3-150/2017-IA-III dated 03.04.2018. This decision of SEIAA, Odisha was communicated by the SEIAA office to SEAC office vide letter no. 6621/SEIAA, dated 17.04.2019.
17. The SEAC decided to appraise building and construction projects of above category as per above decision of the SEIAA, Odisha.
18. The SEAC observed that the information / documents furnished by the proponent as per para-10 is not adequate to consider the proposal for grant of Environmental Clearance.
19. The SEAC in its meeting held on 27.04.2019, decided to take decision on the proposal after the proponent submits the approval of the drainage and sewerage disposal plan by the competent authority such as Bhubaneswar Development Authority (BDA).

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

20. The proponent has not submitted any approval of the drainage and sewerage disposal plan by the competent authority such as Bhubaneswar Development Authority (BDA) through online system.
21. The SEAC observed that this is a case more than four years and also data provided is more than four years old and also the proponent has not able to comply the same within the time frame in online system.
22. The SEAC in its meeting held on dated 06.06.2022 decided to return the proposal to SEIAA, Odisha with a request to delist the proposal and ask the proponent to apply afresh with all required documents.
23. The Project proponent has applied fresh application for Environment Clearance with all documents and also submitted the clarification asked by SEAC in its meeting 27.04.2019.
24. The proponent has furnished the compliance and the SEAC verified the same i.e. the proponent has submitted the approval of the drainage and sewerage disposal plan by the competent authority such as Bhubaneswar Development Authority (BDA).

After detailed discussion, the SEAC decided to take decision on the proposal after a fresh visit by the Sub-Committee of SEAC to verify the present status of the project as the proposal had been appraised long back.

ITEM NO -21

PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR BASENPALI STONE QUARRY OVER AN AREA OF 5.56 HA. /13.75 ACRES IN VILLAGE- BASENPALI, UNDER TAHASIL - LAKHANPUR OF DISTRICT - JHARSUGUDA OF M/S SHREE RADHARAMAN STONE CRUSHER PVT. LTD. – TOR

1. The proposal was considered by the committee to determine the “Terms of Reference (ToR)” for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.
2. The project falls under category “B” or activity 1(a) - Mining of Minerals projects under EIA Notification dated 14th September 2006 as amended from time to time
3. The proposed project is for Basenpali Stone Quarry over an area of 5.56 Ha. /13.75Acres in village- Basenpali, under Tahasil - Lakhanpur of District - Jharsuguda of M/s Shree Radharaman Stone Crusher Pvt. Ltd. Of Sushil Kumar Agrawal, Director.
4. The Basenpali stone quarry has been granted by the Tahasildar, Lakhanpur and M/s Radharaman Stone Crusher Pvt. Ltd has been declared as the successful bidder for grant of Basenpali stone quarry over 13.75 Ac.(5.56 Ha.) in Mouza- Basenpali, Khata No. 1 and Plot No. 580,106/829(P),106/828(P) and 594/832(P) for a period of 5-Years vide Lease Letter No.102, dated 08.01.2018.
5. The mining plan for Basenpali Stone quarry has been approved by the Director Geology Sambalpur Odisha vide letter no.1269/ZS on dated 17.05.2018.
6. **Location and Connectivity** - The lease is located in survey of India toposheet no. F44R9(64O/9) and bounded between the latitudes of 21°47'30.5" E to 21°47'46.5" E and longitudes of 83°32'57.3" N to 83°33'09.0" N. on Khata No. 1 and Plot No. 1(P),3(P) Kisam: Jalabhandar. Nearest Railway station is Raigarh Railway Station at a distance of 19 Km from

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

the project site. The nearest road is NH 200 located at a distance of 0.5 Km. Nearest airport is Jharsuguda airport at a distance of 55 Km from the mining Lease area. Nearest water reservoir is Hirakud – 4.5km. Nearest habitation – Basenpalli at 1.9km. Nearest RF – Jhargan at 2.5km. Debrigarh wild life sanctuary at 9km. Nearest State Boundaries (Odisha-Chatishgarh) at 1.5km. Nearest road bridge at 0.6km.

7. **Total Reserves** – Geological reserve is 976557cum and Mineable reserve is 596203cum.
8. **Method Of Mining** - The method of mining will be semi mechanized method. The total production in five years is up to 276777m³ per annum. The details of year wise production is given below,

Table No.1.1: Details of Year Wise Production

Year	Length Of Influence(M)	X-Area Of Rock Mass (M ²)	Vol. Of Excavation (M ³)	Vol. Of Rock Mass (M ³)	Vol. Of Waste (M ³)	X-Area Of Soil (M ²)	Vol. Of Soil (M ³)
A	C	D	E= C X D	F=E x 90%	G=E x 10%	H	I= H X C
1st Year	153	400	61200	55080	6120	10	1530
2nd Year	153	401	61353	55218	6135	9	1377
3rd Year	153	402	61506	55355	6151	10	1530
4th Year	153	403	61659	55493	6166	11	1683
5th Year	153	404	61812	55631	6181	10	1530
Total			307530	276777	30753		7650

9. Mining of rock mass will be worked out by opencast method of mining. Handling of rock mass will be done both manually and by excavators. Handpicks, spade, chisel, hammer will be used by manual labors for sorting and sizing. The loosening of rock mass will be done by drilling and blasting. Drilling will be done either by wagon drill or jack hammer taking in to consideration the bench height varying from 3 meter to 6m.
10. Mine road will be maintained between benches with Suitable gradient of haul road will be maintained in between 1 in 16 to 1 in 20.
11. Ultimate depth of Mining 178 mRL respectively. The proposed pit dimension will be 196m x 145m after plan period.
12. **Water Requirement** - 3KLD of water will be required from which 1KLD of water will be required for drinking & domestic purpose. 2 KLD of water is suggested to be utilized for dust suppression and plantation purpose. Water will be sourced from private water tankers and rain water harvesting from the existing quarry.
13. The total excavated rock mass will be utilised as road metal. Hence, 30753 cum of waste/reject will be generated in the plan period. Waste/rejects to be generated from the lease area will be utilised for making of mine road and allied infrastructures. The soil to be generated will be stacked in the earmarked temporary soil stack and will be utilised for the plantation purpose to be undertaken around quarry and adjacent to haul roads.
14. **Green Belt** - In the process, 1618 nos. of saplings will be used for plantation in the quarried out areas of 1.011Ha. within lease respectively.
15. **Power Requirement** - No use of electric power as the operation will be done in day time.

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

However solar lights will be used for day to day living purposes. Tipper & Dumper will be used for transportation. So the approximate quantity of the fuel/Diesel used per day is 100 Lit/day.

16. **Employment Potential** - The mining activity will generate employment for 12 workers (Skilled-1nos., Semi-skilled-02nos. and Un-skilled-07nos.& Mines Manager/Mine Permit Manager-02nos).
17. The project cost is ` 20 lakhs.
18. The Environment consultant **M/s Kalyani Laboratories (Pvt) Ltd. Pahala, Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee on 09.04.2021.
19. The SEAC in its meeting held on 09.04.2021 recommended the following:
 - A. The Interstate Boundary Chhatisgarh is 1.5 km away from the boundary of the lease area. The proposal to be examined in light of order of the Hon'ble NGT whether general condition is applicable for this project.
 - B. If general condition is not applicable, then the proponent may be asked to submit the following information / documents followed by site visit of the sub-committee of SEAC to verify the impact of the mining activity on Hirakud Reservoir for taking decision on the proposal.
 - i) Project Proponent shall provide detail justification concerning non-applicability of general conditions as project is located at 1.5 Km distance from interstate boundary
 - ii) Certificate from the concerned DFO with respect to DLC land involved in the lease area and exact distance of lease from Eco sensitive Zone of Debrigarh Wild life sanctuary.
 - iii) Certificate from the concerned Tahasildar that there is no other mine located within 500 meter of the lease area. Distance of all nearby mines in Topomap with geo coordinates i.e., latitudes and longitudes of mines.
 - iv) Land documents with kisam of land.
 - v) Water bodies within lease area. How mining will be done within water body.
 - vi) Mitigation measures to be taken to ensure not to affect Hirakud reservoir and contamination of river due to mining.
20. The proponent had not responded to the queries raised in the online system as a result the proposal was delisted from the online system.
21. The proponent has now applied afresh without responding to the queries raised as above.
22. The MoEF&CC, Govt. of India notification vide S.O. 1886 (E), dated 20.04.2022 stipulates that all mining lease area in respect of minor mineral mining leases will be considered as "category B" project. However, the notification was silent about non-applicability of general condition for the minor mineral mining leases Subsequently, the MoEF&CC, Govt. of India vide notification no. S.O. 2163 (E), dated 09.05.2022 clarified that general condition is not applicable for mining of minor minerals.

After detailed discussion, the SEAC decided to take decision on the proposal after receipt of

Proceedings of the SEAC meeting held on 20.08.2022 (Old proposals – compliance received)

Environmental Scientist, SEAC

following information / documents as sought for earlier followed by site visit of the Sub-Committee of SEAC to verify the impact of the mining activity on Hirakud Reservoir.

- i) Certificate from the concerned DFO with respect to DLC land involved in the lease area and exact distance of lease from Eco sensitive Zone of Debrigarh Wild life sanctuary.
- ii) Certificate from the concerned Tahasildar that there is no other mine located within 500 meter of the lease area. Distance of all nearby mines in Topomap with geo coordinates i.e., latitudes and longitudes of mines.
- iii) Land documents with kisam of land.
- iv) Water bodies within lease area. How mining will be done within water body.
- v) Mitigation measures to be taken to ensure not to affect Hirakud reservoir and contamination of river due to mining.



Secretary, SEAC

STANDARD TERMS OF REFERENCE (ToR) FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT FOR NON-COAL MINING PROJECT.

1. The ToR will not be operational till such time the Project Proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors .
2. Department of Mining & Geology, State Government shall ensure that mining operation shall not commence till the entire compensation levied, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
3. Year-wise production details since 1993-94 should be given, clearly stating the highest production achieved in any one year prior to 1993-94. It may also be categorically informed whether there had been any increase in production after the EIA Notification 1994 came into force, w.r.t. the highest production achieved prior to 1994. The production details need to submit since inception of mine duly authenticated by Department of Mines & Geology, State Government.
4. A copy of the document in support of the fact that the Proponent is the rightful lessee of the mine should be given.
5. All documents including approved mine plan, EIA and Public Hearing should be compatible with one another in terms of the mine lease area, production levels, waste generation and its management, mining technology etc. and should be in the name of the lessee.
6. Certificate from Mining Officer that mining pits which are existing within lease area have been done illegally prior to sanction of lease in favour of lessee.
7. All corner coordinates of the mine lease area, superimposed on a High Resolution Imagery/toposheet, topographic sheet, geomorphology and geology of the area should be provided. Such an Imagery of the proposed area should clearly show the land use and other ecological features of the study area (core and buffer zone).
8. Information should be provided in Survey of India Toposheet in 1:50,000 scale indicating geological map of the area, geomorphology of land forms of the area, existing minerals and mining history of the area, important water bodies, streams and rivers and soil characteristics.
9. Details about the land proposed for mining activities should be given with information as to whether mining conforms to the land use policy of the State; land diversion for mining should have approval from State land use board or the concerned authority.
10. It should be clearly stated whether the proponent Company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be spelt out in the EIA Report with description of the prescribed operating process / procedures to bring into focus any infringement/deviation/violation of the environmental or forest norms/ conditions? The hierarchical system or administrative order of the Company to deal with the environmental issues and for ensuring compliance with the EC conditions may also be given. The system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the Company and/or shareholders or stakeholders at

large, may also be detailed in the proposed safeguard measures in each case should also be provided.

11. Issues relating to Mine Safety, including subsidence study in case of underground mining and slope study in case of open cast mining, blasting study etc. should be detailed. The proposed safeguard measures in each case should also be provided.
12. The study area will comprise of 10 km zone around the mine lease from lease periphery and the data contained in the EIA such as waste generation etc. should be for the life of the mine/ lease period.
13. Land use of the study area delineating forest area, agricultural land, grazing land, wildlife sanctuary, national park, migratory routes of fauna, water bodies, human settlements and other ecological features should be indicated. Land use plan of the mine lease area should be prepared to encompass preoperational, operational and post operational phases and submitted. Impact, if any, of change of land use should be given.
14. Details of the land for any Over Burden Dumps outside the mine lease, such as extent of land area, distance from mine lease, its land use, R&R issues, if any, should be given.
15. A Certificate from the Competent Authority in the State Forest Department should be provided, confirming the involvement of forest land, if any, in the project area. In the event of any contrary claim by the Project Proponent regarding the status of forests, the site may be inspected by the State Forest Department along with the Regional Office of the Ministry to ascertain the status of forests, based on which, the Certificate in this regard as mentioned above be issued. In all such cases, it would be desirable for representative of the State Forest Department to assist the Expert Appraisal Committees.
16. Status of forestry clearance for the broken up area and virgin forestland involved in the Project including deposition of net present value (NPV) and compensatory afforestation (CA) should be indicated. A copy of the forestry clearance should also be furnished.
17. Implementation status of recognition of forest rights under the Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 should be indicated.
18. The vegetation in the RF / PF areas in the study area, with necessary details, should be given.
19. A study shall be got done to ascertain the impact of the Mining Project on wildlife of the study area and details furnished. Impact of the project on the wildlife in the surrounding and any other protected area and accordingly, detailed mitigative measures required, should be worked out with cost implications and submitted.
20. Location of National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site Tiger/Elephant Reserves/(existing as well as proposed), if any, within 10 km of the mine lease should be clearly indicated, supported by a location map duly authenticated by Chief Wildlife Warden. Necessary clearance, as may be applicable to such projects due to proximity of the ecologically sensitive areas as mentioned above, should be obtained from the Standing Committee of National Board of Wildlife and copy furnished.
21. A detailed biological study of the study area [core zone and buffer zone (10 km radius of the periphery of the mine lease)] shall be carried out. Details of flora and fauna, endangered, endemic and RET Species duly authenticated, separately for core and buffer zone should be furnished based on such primary field survey,

clearly indicating the Schedule of the fauna present. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished. Necessary allocation of funds for implementing the same should be made as part of the project cost.

22. Proximity to Areas declared as 'Critically Polluted' or the Project areas likely to come under the 'Aravali Range', (attracting court restrictions for mining operations), should also be indicated and where so required, clearance certifications from the prescribed Authorities, such as the SPCB or State Mining Dept. Should be secured and furnished to the effect that the proposed mining activities could be considered.
23. Similarly, for coastal Projects, A CRZ map duly authenticated by one of the authorized agencies demarcating LTL, HTL, CRZ area, location of the mine lease w.r.t CRZ, coastal features such as mangroves, if any, should be furnished. (Note: The Mining Projects falling under CRZ would also need to obtain approval of the concerned Coastal Zone Management Authority).
24. R&R Plan/compensation details for the Project Affected People (PAP) should be furnished. While preparing the R&R Plan, the relevant State/National Rehabilitation & Resettlement Policy should be kept in view. In respect of SCs /STs and other weaker sections of the society in the study area, a need based sample survey, family-wise, should be undertaken to assess their requirements, and action programmes prepared and submitted accordingly, integrating the sectoral programmes of line departments of the State Government. It may be clearly brought out whether the village(s) located in the mine lease area will be shifted or not. The issues relating to shifting of village(s) including their R&R and socio-economic aspects should be discussed in the Report.
25. One season (non-monsoon) [i.e. March - May (Summer Season); October - December (post monsoon season); December - February (winter season)] primary baseline data on ambient air quality as per CPCB Notification of 2009, water quality, noise level, soil and flora and fauna shall be collected and the AAQ and other data so compiled presented date-wise in the EIA and EMP Report. Site-specific meteorological data should also be collected. The location of the monitoring stations should be such as to represent whole of the study area and justified keeping in view the pre-dominant downwind direction and location of sensitive receptors. There should be at least one monitoring station within 500 m of the mine lease in the pre-dominant downwind direction. The mineralogical composition of PM₁₀, particularly for free silica, should be given.
26. Air quality modelling should be carried out for prediction of impact of the project on the air quality of the area. It should also take into account the impact of movement of vehicles for transportation of mineral. The details of the model used and input parameters used for modelling should be provided. The air quality contours may be shown on a location map clearly indicating the location of the site, location of sensitive receptors, if any, and the habitation. The wind roses showing pre-dominant wind direction may also be indicated on the map.
27. The water requirement for the Project, its availability and source should be furnished. A detailed water balance should also be provided. Fresh water requirement for the Project should be indicated.
28. Necessary clearance from the Competent Authority for drawl of requisite quantity of water for the Project should be provided.

29. Description of water conservation measures proposed to be adopted in the Project should be given. Details of rainwater harvesting proposed in the Project, if any, should be provided.
30. Impact of the Project on the water quality, both surface and groundwater, should be assessed and necessary safeguard measures, if any required, should be provided.
31. Based on actual monitored data, it may clearly be shown whether working will intersect groundwater. Necessary data and documentation in this regard may be provided. In case the working will intersect groundwater table, a detailed Hydro Geological Study should be undertaken and Report furnished. The Report inter-alia, shall include details of the aquifers present and impact of mining activities on these aquifers. Necessary permission from Central Ground Water Authority for working below ground water and for pumping of ground water should also be obtained and copy furnished.
32. Details of any stream, seasonal or otherwise, passing through the lease area and modification/ diversion proposed, if any, and the impact of the same on the hydrology should be.
33. Information on site elevation, working depth, groundwater table etc. Should be provided both in AMSL and BGL. A schematic diagram may also be provided for the same.
34. A time bound Progressive Greenbelt Development Plan shall be prepared in a tabular form (indicating the linear and quantitative coverage, plant species and time frame) and submitted, keeping in mind, the same will have to be executed up front on commencement of the Project. Phase-wise plan of plantation and compensatory afforestation should be charted clearly indicating the area to be covered under plantation and the species to be planted. The details of plantation already done should be given. The plant species selected for green belt should have greater ecological value and should be of good utility value to the local population with emphasis on local and native species and the species which are tolerant to pollution.
35. Impact on local transport infrastructure due to the Project should be indicated. Projected increase in truck traffic as a result of the Project in the present road network (including those outside the Project area) should be worked out, indicating whether it is capable of handling the incremental load. Arrangement for improving the infrastructure, if contemplated (including action to be taken by other agencies such as State Government) should be covered. Project Proponent shall conduct Impact of Transportation study as per Indian Road Congress Guidelines.
36. Details of the onsite shelter and facilities to be provided to the mine workers should be included in the EIA Report.
37. Conceptual post mining land use and Reclamation and Restoration of mined out areas (with plans and with adequate number of sections) should be given in the EIA report.
38. Occupational Health impacts of the Project should be anticipated and the proposed preventive measures spelt out in detail. Details of pre-placement medical examination and periodical medical examination schedules should be incorporated in the EMP. The project specific occupational health mitigation measures with required facilities proposed in the mining area may be detailed.
39. Public health implications of the Project and related activities for the population in the impact zone should be systematically evaluated and the proposed remedial measures should be detailed along with budgetary allocations.

40. Measures of socio economic significance and influence to the local community proposed to be provided by the Project Proponent should be indicated. As far as possible, quantitative dimensions may be given with time frames for implementation.
41. Detailed environmental management plan (EMP) to mitigate the environmental impacts which, should inter-alia include the impacts of change of land use, loss of agricultural and grazing land, if any, occupational health impacts besides other impacts specific to the proposed Project.
42. Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
43. The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
44. A Disaster Management Plan shall be prepared and included in the EIA/EMP Report.
45. Benefits of the Project if the Project is implemented should be spelt out. The benefits of the Project shall clearly indicate environmental, social, economic, employment potential, etc.
46. The activities and budget earmarked for Corporate Environmental Responsibility (CER) shall be as per Ministry's O.M No 22-65/2017-IA. II (M) dated 01.05.2018 and the action plan on the activities proposed under CER shall be submitted at the time of appraisal of the project included in the EIA/EMP Report.
47. The Action Plan on the compliance of the recommendations of the CAG as per Ministry's Circular No. J-11013/71/2016-IA.I (M), dated 25.10.2017 needs to be submitted at the time of appraisal of the project and included in the EIA/EMP Report.
48. Compliance of the Ministry's Office Memorandum No. F: 3-50/2017-IA.III (Pt.), dated 30.05.2018 on the judgment of Hon'ble Supreme Court, dated the 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India needs to be submitted and included in the EIA/EMP Report.
49. Mitigation measures as per the Ministry's OM no Z-11013/57/2014-IA.II(M) dated 29.10.2014-Impact of mining activities on Habitations-Issues related to the mining projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area.
50. Besides the above, the below mentioned general points are also to be followed:-
 - a) All documents to be properly referenced with index and continuous page numbering.
 - b) Where data are presented in the Report especially in Tables, the period in which the data were collected and the sources should be indicated.
 - c) Project Proponent shall enclose all the analysis/testing reports of water, air, soil, noise etc. using the MoEF&CC/NABL accredited laboratories. All the original analysis/testing reports should be available during appraisal of the Project.
 - d) Where the documents provided are in a language other than English, an English translation should be provided.
 - e) The Questionnaire for environmental appraisal of mining projects as devised earlier by the Ministry shall also be filled and submitted.
 - f) While preparing the EIA report, the instructions for the Proponents and instructions for the Consultants issued by MoEF&CC vide O. M. No. J-

11013/41/2006- IA.II (I) dated 4th August, 2009, which are available on the website of this Ministry, should be followed.

- g) The consultants involved in the preparation of EIA/EMP report should be an accredited with Quality Council of India (QCI) / National Accreditation Board of Education and Training (NABET) and a certificate in this regard should be annexed in the EIA/EMP reports. Data provided by other organization/Laboratories including their status of approvals etc. should be specified. The consultant, while presenting the project should be equipped with relevant data and information relating to the project and make a qualitative presentation.
- h) Changes, if any made in the basic scope and project parameters (as submitted in Form-I and the PFR for securing the TOR) should be brought to the attention of MoEF&CC with reasons for such changes and permission should be sought, as the TOR may also have to be altered. Post Public Hearing changes in structure and content of the draft EIA/EMP (other than modifications arising out of the P.H. Process) will entail conducting the PH again with the revised documentation.
- i) As per the circular no. J-11011/618/2010-IA.II (I) dated 30.5.2012, certified report of the status of compliance of the conditions stipulated in the environment clearance for the existing operations of the project, should be obtained from the Regional Office of Ministry of Environment, Forest and Climate Change, as may be applicable.
- j) The EIA report should also include (i) surface plan of the area indicating contours of main topographic features, drainage and mining area, (ii) geological maps and sections and (iii) sections of the mine pit and external dumps, if any, clearly showing the land features of the adjoining area

RECOMMENDATION OF CSIR-NEERI REPORT ON "CARRYING CAPACITY STUDY FOR ENVIRONMENTALLY SUSTAINABLE IRON AND MANGANESE ORE MINING ACTIVITY IN KEONJHAR, SUNDARGARH AND MAYURBHANJ DISTRICTS OF ODISHA STATE"

1. Department of Steel & Mines, Govt, of Odisha should prepare 5 years regional plan for annual iron ore requirement from the state, which in turn shall be met from different mines/zones (e.g. Joda, Koira.) in the state. Accordingly, sustainable annual production (SAP) for each zone/mine may be followed adopting necessary environmental protection measures.
2. The expansion or opening of new manganese ore mines may be considered only when the actual production of about 80% is achieved. Further, the mines that have not produced Mn ore for last two years and have no commitment in the current year as well: EC capacity in such cases may be reviewed. The Department of Steel & Mines, Govt, of Odisha shall submit the Annual Report on this issue to the MoEF&CC for further necessary action.
3. Analysis of baseline environmental quality data for the year 2014 and 2016 indicates that existing mining activities appear to have little / no potential impact on environmental quality, except on air environment, which was mainly due to re-suspension of road dust. Therefore, all the working mines can continue to operate with strict compliance to monitoring of environmental quality parameters as per EC and CTE/CTO conditions of the respective mine, and implementation of suggested measures for control of road dust and air pollution. Odisha State Pollution Control Board has to ensure the compliance of CTE/CTO. Regional office of the MoEF&CC, Bhubaneswar shall monitor the compliance of the EC conditions. Regional office of the Indian Bureau of Mines (IBM) shall monitor the compliance of mining plan and progressive mine closure plan. Any violation by mine lease holder may invite actions per the provisions of applicable acts.
4. Considering the existing environmental quality, EC capacity, production rate, iron ore resources availability and transport infrastructure availability, the share of Joda and Koira sector works out to be 70% and 30% respectively for the existing scenario for the year 2015-16. However, for additional EC capacity, it can be 50:50 subject to commensurate infrastructure improvement (viz. SOTM. pollution free road transport, enhancement of rail network etc.) in the respective regions.
5. Continuous monitoring of different environmental quality parameters as per EC and CTE/CTO conditions with respect to air, noise, water (surface and ground water) and soil quality in each region shall be done. The environmental quality parameters should not indicate any adverse impact on the environment. Monitoring within the mines should be done by individual mine lease holders, whereas outside the mine lease area, monitoring should be done by the Govt, of Odisha through various concerned departments/ authorized agencies. Various monitoring/ studies should be conducted through national reputed institutes, NABET/ MoEF&CC accredited laboratories/organizations. The reports submitted by individual mine lease holders and study reports prepared by other concerned departments/agency for each of the regions should be evaluated and examined by SPCB/ MoEF&CC.

6. Construction of cement concrete road from mine entrance and exit to the main road with proper drainage system and green belt development along the roads and also construction of road minimum 300 m inside the mine should be done. This should be done within one year for existing mines and new mine should have since beginning. The concerned departments should extend full support; wherever the land does not belong to the respective mine lease holders. The Department of Steel & Mines, Govt, of Odisha should ensure the compliance and should not issue the Mining Permits, if mine lease holder has not constructed proper cement concrete road as suggested above.
7. In view of high dust pollution and noise generation due to road transport, it is proposed to regulate/guide the movement of iron and manganese ore material based on the EC capacity of the mines. Accordingly, ore transport mode has been suggested, as given below in Table.

Table : EC Capacity based Suggested Ore Transport Mode (SOTM)

Code	EC	Suggested Ore Transport Mode
SOTM 1	> 5 MTPA	100% by private railway siding or conveyor belt up to public railway siding or pipeline for captive mines and 70% for non-captive mines
SOTM 2	Between 3 and <5 MTPA	Minimum 70% by public railway siding, through conveyor belt and maximum 30% by road - direct to destination or other public railway siding or above option
SOTM 3	Between 1 and < 3 MTPA	Minimum 70% by public railway siding and maximum 30% by road - direct to destination or by other public railway siding or above options
SOTM 4	<1 MTPA	100 % by 10/17 Ton Trucks or above options

It is mentioned by State Govt, of Odisha that currently about 45% of the iron ore is despatched using rail network and progressively it will be increased to about 60% by rail/slurry over a period of 5 years, taking into account time required to set up more railway sidings.

In view of present ore transport practices and practical limitations, all the existing mines should ensure adoption of SOTM within next 5 years. New mines or mines seeking expansion should incorporate provision of SOTM in the beginning itself, and should have system in place within next 5 years. However, the State Govt, of Odisha shall ensure dust free roads in mining areas wherever the road transportation of mineral is involved. The road shoulders shall be paved with fence besides compliance with IRC guidelines. All the roads should have proper drainage system and apart from paving of entire carriage width the remaining right of way should have native plantation (dust capturing species). Further, regular maintenance should also be ensured by the Govt. of Odisha.

Transportation of iron & manganese ore through river (jetty) to nearest Sea port (Sea cargo option) may be explored or connecting Sea ports with Railway network from the mines to be improved further so that burden on existing road and rail network and also pollution thereof can be minimized. Progress on development of dust free roads, implementation of SOTM, increased use of existing rail network, development of additional railway network/conveyor belt/ pipelines etc. shall be submitted periodically to MoEF&CC and SEIAA, Odisha.

Responsibility: Department of Steel & Mines, Govt. of Odisha; Time Period: 5 Years for developing railway/ conveyor belt facilities

8. Development of parking plazas for trucks with proper basic amenities/ facilities should be done inside mine. This should be done within one year for existing mines and new mines should have since beginning. Small capacity mines (in terms of lease area or production) not having enough space within the mine lease areas should develop parking plaza at a common place within the region with requisite facilities. Responsibility: Individual Mine Lease Holders; Time Period: 1 Year
9. Construction of NH 215 as minimum 4 lane road with proper drainage system and plantation and subsequent regular maintenance of the road as per IRC guidelines. Construction of other mineral carrying roads with proper width and drainage system along with road side plantation to be carried out. Responsibility: Department of Steel & Mines with PWD / NHAI Time Period: 2 Years.
10. Regular vacuum cleaning of all mineral carrying roads aiming at "Zero Dust Resuspension" may be considered. Responsibility: PWD / NHAI/ Mine Lease Holders; Time Period: 3 months for existing roads.
11. Expansion of existing mines and new mines should be considered after conducting recent EIA Study as per the provisions of EIA Notification 2006, as amended time to time¹) with proper justification on demand scenario for iron ore requirement and availability of pollution free transport network in the region. Responsibility: IBM, Department of Steel & Mines and MoEF&CC, New Delhi.
12. **Mine-wise Allocation of Annual Production:** In case the total requirement of iron ore exceeds the suggested limit for that year, permission for annual production by an individual mine may be decided depending on approved EC capacity (for total actual dispatch) and actual production rate of individual mine during last year or any other criteria set by the State Govt., i.e. Dept, of Steel & Mines. Department of Steel and Mines in consultation with Indian Bureau of Mines-RO should prepare in advance mine-wise annual production scenario as suggested in Table, so that demand for iron ore can be anticipated, and actual production/dispatch does not exceed the suggested annual production.

**Table: Allocation of Production to Different Mines for 5 Years
(as per approved Mining Plan)**

Mine Lease	EC Capacity (MTPA)	Suggested Annual Production (MT)				
		2016-17	2017- 18	2018-19	2019-20	2020-21
		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
Mine 1	X1					
Mine 2	X2					
Mine 3	X3					
Mine n	Xn					
Total	160 +	105	129	153	177	201
Next year allocation = Average of EC Capacity and Last year production						

13. Expansion of Existing Mines having Validity up to 2020: In view of implementation of MMDR Act 2015, wherein many non-captive mines are expected to be closed by March 2020, total iron ore production scenario has been. It is expected that the non-captive mines having validity till 2020 shall try to maximize their production (limited to EC capacity) in the remaining period. Further, depending upon availability of iron ore resources, these mines may also seek expansion of EC capacity. It may be noted here that total EC capacity of existing 25 working mines having validity upto 2020 is about 85 MTPA, whereas actual

production from these mines has been only 44.677 MT (52.6%) during 2015-16 and 57.07 MT (67.1%) during 2016-17. Also, it is expected that these mines would not even be able to achieve ore production as per existing EC capacity till March 2020. Therefore, these existing mines should go for production to the fullest extent to meet the requisite demand from the State. However, where EC limit is exhausted, application for expansion may be considered. Further, the EC process (i.e. Grant of TOR, Baseline data collection, Mining plan/ scheme approval, Public hearing, preparation of EIA/EMP Report. Appraisal by the EAC and grant of EC) takes about one year time. Under such circumstances, it is suggested that further applications for grant of TOR or grant of EC for expansion of production capacity of the mine should be considered for those existing mines, which have exhausted their capacity subject to consideration of all environmental aspects. Responsibility: Department of Steel & Mines and MoEF&CC, New Delhi.

14. **Sustained Iron Ore Production beyond 2020:** Considering the implementation of MMDR Act 2015, total production of iron ore in Odisha State is anticipated to be about 111 MT during 2016-17 (actual production was - 102.663 MT), 136 MT during 2017-18, 146 MT during 2018-19 and 146 MT during 2019-20. Then there will be substantial drop in total production (to the tune of 73 MT during 2020-21 onwards) due to closure of mines, which are valid up to 2020. Therefore, in order to maintain operation/sustained growth of downstream industries, iron ore mining in the region needs to be continued at a sustainable rate. The State Govt. through Department of Steel and Mines should initiate appropriate action to ensure continued availability of iron ore from the region, as per suggested sustainable annual production
15. **Reserves Estimation**-Mining Plan and Exploration; Appropriate actions (geo- technical investigation for qualitative and quantitative resource estimation & other preparations for auction of mines), may be initiated taken into account the existing working mines, and the mines which were operational at some point of time (but closed presently due to various reasons). The total iron ore reserves/ resources available within the total lease area of each mine should be estimated by State Govt./NMET/ GSI (or any other approved agency) with respect to: (i) Total lease area of mine (surface), (ii) Maximum depth to which resources could be available, (iii) Resources below the ground water table (if intersected), (iv) Reserves are to be estimated as per UNFC code with respect to quantity and quality (% Fe content), (v) Maximum mining rate and area for auction (after 2020) will be calculated based on total resources available and proposed life of mine leading to closure of mine in a stipulated time period. Responsibility: Department of Steel & Mines, IBM and GSI; Time frame: 1 year for the mines to be auctioned for next 2 years. The above mentioned organizations shall ensure the compliance with respect to timelines for implementations.
16. Depending upon availability of extractable iron ore resources within a mine, mining below the ground water table may be permitted after conducting necessary geological and hydro-geological study by GSI and requisite approval from the CGWB/CGWA (Central Ground Water Board/Authority). This can be explored at least in few mines on trial/pilot basis. Further, within a mine, it will be desirable to operate one pit at a time, and next pit should be opened after extracting maximum possible resources from the first pit, so that the exhausted pit can be used for back filling/ storing of low grade iron ore. However, depending upon the quantity and/or quality of iron/ manganese ore, other mine pits in the same mine lease may also be opened for sustainable scientific mining, as per approved mining plan/scheme of mining by IBM. The Department of Steel & Mines, Govt.

of Odisha should initiate the pilot project so that minerals are fully utilized.

17. **Commercial Utilization of Low Grade Ore:** R&D studies towards utilization of low-grade iron ore should be conducted through research/academic institutes like IMMT, Bhubaneswar, NML, Jamshedpur, and concerned metallurgical departments in IITs, NITs etc., targeting full utilization of low-grade iron ore (Fe content upto 45% by 2020 and upto 40% by 2025). In fact, life cycle assessment of whole process including environmental considerations should be done for techno-economic and environmental viability. R&D studies on utilization of mine wastewater having high concentration of Fe content for different commercial applications in industries such as cosmetics, pharmaceutical, paint industry should also be explored. Responsibility: IBM, Dept, of Steel & Mines, Individual Mine Lease Holders.
18. The mining activity in Joda-Koira sector is expected to continue for another 100 years, therefore, it will be desirable to develop proper rail network in the region. Rail transport shall not only be pollution free mode but also will be much economical option for iron ore transport. The rail network and/or conveyor belt system upto public railway siding needs to be created. The total length of the conveyor belt system/ rail network to be developed from mines to nearest railway sidings by 11 mines in Joda region is estimated to be about 64 km. Similarly, in Koira region, total length of rail network/ conveyor system for 8 mines (under SOTM 1 & 2) is estimated to be around 95 km. Further, it is suggested to develop a rail network connecting Banspani (Joda region) and Roxy railway sidings in Koira region. Responsibility: Dept, of Steel & Mines, Govt, of Odisha and Concerned Mines along with Indian Railways. Time Period: Maximum 7 years (by 2025). The Department of Steel & Mines. Govt, of Odisha should follow-up with the concerned Departments and railways so that proposed proper rail network is in place by 2025.
19. State Govt, of Odisha shall make all efforts to ensure exhausting all the iron & manganese ore resources in the existing working mines and from disturbed mining leases/zones in Joda and Koira region. The criteria suggested shall be applicable while suggesting appropriate lease area and sustainable mining rate. Responsibility: Dept, of Steel & Mines, Govt, of Odisha.
20. Large and medium mine leases contribute to better implementation of reclamation and rehabilitation plans to sustain the ecology for scientific and sustainable mining. The small leases do not possess scientific capability of environmentally sustainable mining. Therefore, new mine leases having more than 50 ha area should be encouraged, as far as possible. This will ensure inter-generational resource availability to some extent. Responsibility: Dept, of Steel & Mines, Govt, of Odisha.
21. **Mining Operations/Process Related:** (i) Appropriate mining process and machinery (viz. right capacity, fuel efficient) should be selected to carry out various mining operations that generate minimal dust/air pollution, noise, wastewater and solid waste, e.g. drills should either be operated with dust extractors or equipped with water injection system, (ii) After commencement of mining operation, a study should be conducted to assess and Quantify emission load generation (in terms of air pollution, noise, waste water and solid wasted from each of the mining activity (Including transportation) on annual basis. Efforts should be made to further eliminate/ minimize generation of air pollution/dust, noise, wastewater, solid waste generation in successive years through use of better technology. This shall be ensured by the respective mine lease holders, (iii) Various machineries/equipment selected (viz. dumpers, excavators, crushers,

screen plants etc.) and transport means should have optimum fuel/power consumption, and their fuel/power consumption should be recorded on monthly basis. Further, inspection and maintenance of all the machineries/ equipment/ transport vehicles should be followed as per manufacturer's instructions/ recommended time schedule and record should be maintained by the respective mine lease holders, (iv) Digital processing of the entire lease area using remote sensing technique should be carried out regularly once in 3 years for monitoring land use pattern and mining activity taken place. Further, the extent of pit area excavated should also be demarcated based on remote sensing analysis. This should be done by ORSAC (Odisha Space Applications Centre, Bhubaneswar) or an agency of national repute or if done by a private agency, the report shall be vetted/ authenticated by ORSAC, Bhubaneswar. Expenses towards the same shall be borne by the respective mine lease holders. Responsibility: Individual Mine Lease Holders.

22. **Air Environment Related:** (i) Fugitive dust emissions from all the sources should be controlled regularly on daily basis. Water spraying arrangement on haul roads, loading and unloading and at other transfer points should be provided and properly maintained. Further, it will be desirable to use water fogging system to minimize water consumption. It should be ensured that the ambient air quality parameters conform to the norms prescribed by the GPCB in this regard, (ii) The core zone of mining activity should be monitored on daily basis. Minimum four ambient air quality monitoring stations should be established in the core zone for SPM, PM10, PM2.5, SO₂, NO_x and CO monitoring. Location of air quality monitoring stations should be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets and frequency of monitoring should be undertaken in consultation with the State Pollution Control Board (based on Emission Load Assessment Study). The number of monitoring locations may be more for larger capacity mines and working in larger area. Out of four stations, one should be online monitoring station in the mines having more than 3 MTPA EC Capacity, (iii) Monitoring in buffer zone should be carried out by SPCB or through NABET accredited agency. In addition, air quality parameters (SPM, PM₁₀, PM_{2.5}, SO₂, NO_x and CO) shall be regularly monitored at locations of nearest human habitation including schools and other public amenities located nearest to source of the dust generation as applicable. Further, 11 continuous air quality monitoring systems may be installed in Joida and Koira regions and one in Baripada/ Rairangpur region, (iv) Emissions from vehicles as well as heavy machinery should be kept under control and regularly monitored. Measures should be taken for regular maintenance of vehicles used in mining operations and in transportation of mineral, (v) The vehicles shall be covered with a tarpaulin and should not be overloaded. Further, possibility of using closed container trucks should be explored for direct to destination movement of iron ore. Air quality monitoring at one location should also be carried out along the transport route within the mine (periodically, near truck entry and exit gate). Responsibility: Individual Mine Lease Holders and SPCB.
23. **Noise and Vibration Related:** (i) Blasting operation should be carried out only during daytime. Controlled blasting such as Nonel, should be practiced. The mitigation measures for control of ground vibrations and to arrest fly rocks and boulders should be implemented, (ii) Appropriate measures (detailed in Section 5.4) 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, (iii) Noise levels should be monitored regularly (on weekly basis) near the major sources of noise generation within the core zone. Further, date, time and distance of measurement should also be indicated with the

noise levels in the report. The data should be used to map the noise generation from different activities and efforts should be made to maintain the noise levels with the acceptable limits of CPCB (CPCB, 2000) (iv) Similarly, vibration at various sensitive locations should be monitored atleast once in month, and mapped for any significant changes due to successive mining operations. Responsibility: Individual Mine Lease Holders.

24. **Water/Wastewater Related** : (i) In general, the mining operations should be restricted to above ground water table and it should not intersect groundwater table. However, if enough resources are estimated below the ground water table, the same may be explored after conducting detailed geological studies by GSI and hydro- geological studies by CGWB or NIH or institute of national repute, and ensuring that no damage to the land stability/ water aquifer system shall happen. The details/ outcome of such study may be reflected/incorporated in the EIA/EMP report of the mine appropriately, (ii) Natural watercourse and/or water resources should not be obstructed due to any mining operations. Regular monitoring of the flow rate of the springs and perennial nallas should be carried out and records should be maintained. Further, regular monitoring of water quality of nallas and river passing thorough the mine lease area (upstream and downstream locations) should be carried out on monthly basis, (iii) Regular monitoring of ground water level and its quality should be carried out within the mine lease area by establishing a network of existing wells and constructing new piezometers during the mining operation. The monitoring should be carried out on monthly basis, (iv) In order to optimize water requirement, suitable conservation measures to augment ground water resources in the area should be undertaken in consultation with Central Ground Water Board (CGWB). (v) Suitable rainwater harvesting measures on long term basis should be planned and implemented in consultation with CGWB, to recharge the ground water source. Further, CGWB can prepare a comprehensive plan for the whole region, (vi) Appropriate mitigation measures (viz. ETP, STP, garland drains, retaining walls, collection of runoff etc.) should be taken to prevent pollution of nearby river/other water bodies. Water quality monitoring study should be conducted by State Pollution Control Board to ensure quality of surface and ground water sources on regular basis. The study can be conducted through NABL/ NABET approved water testing laboratory. However, the report should be vetted by SPCB. (vii) Industrial wastewater (workshop and wastewater from the mine) should be properly collected, treated in ETP so as to conform to the discharge standards applicable, (viii) Oil and grease trap should be installed before discharge of workshop effluents. Further, sewage treatment plant should be installed for the employees/colony, wherever applicable, (ix) Mine lease holder should ensure that no silt originating due to mining activity is transported in the surface water course or any other water body. Appropriate measures for prevention and control of soil erosion and management of silt should be undertaken. Quantity of silt/soil generated should be measured on regular basis for its better utilization, (x) Erosion from dumps site should be protected by providing geo-textile matting or other suitable material, and thick plantation of native trees and shrubs should be carried out at the dump slopes. Further, dumps should be protected by retaining walls.(xi) Trenches / garland drain should be constructed at the foot of dumps to arrest silt from being carried to water bodies. Adequate number of check dams should be constructed across seasonal/perennial nallas (if any) flowing through the mine lease areas and silt be arrested. De-silting at regular intervals should be carried out and quantity should be recorded for its better utilization, after proper soil quality analysis, (xii) The water so collected in the reservoir within the mine should be utilized for the sprinkling on hauls

roads, green belt development etc. (xiii) There should be zero waste water discharge from the mine. Based on actual water withdrawal and consumption/ utilization in different activities, water balance diagram should be prepared on monthly basis, and efforts should be made to optimize consumption of water per ton of ore production in successive years. Responsibility: Individual Mine Lease Holders, SPCB and CGWB.

25. **Land/ Soil/ Overburden Related** : (i) The top soil should temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long (not more than 3 years or as per provisions mentioned in the mine plan/ scheme). The topsoil should be used for land reclamation and plantation appropriately, (ii) Fodder plots should be developed in the non-mineralised area in lieu of use of grazing land, if any. (iii) Over burden/ low grade ore should be stacked at earmarked dump site(s) only and should not be kept active for long period. The dump height should be decided on case to case basis, depending on the size of mine and quantity of waste material generated. However, slope stability study should be conducted for larger heights, as per IBM approved mine plan and DGMS guidelines. The OB dump should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles should be undertaken for stabilization of the dump. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Proper records should be maintained regarding species, their growth, area coverage etc, (iv) Catch drains and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from mine operation, soil, OB and mineral dumps. The water so collected can be utilized for watering the mine area, roads, green belt development etc. The drains should be regularly de-silted, particularly after monsoon and should be maintained properly. Appropriate documents should be maintained. Garland drain of appropriate size, gradient and length should be constructed for mine pit, soil, OB and mineral dumps and sump capacity should be designed with appropriate safety margin based on long term rainfall data. Sump capacity should be provided for adequate retention period to allow proper settling of silt material. Sedimentation pits should be constructed at the corners of the garland drains and de-silted at regular intervals, (v) Backfilling should be done as per approved mining plan/scheme. There should be no OB dumps outside the mine lease area. The backfilled area should be afforested, aiming to restore the normal ground level. Monitoring and management of rehabilitated areas should continue till the vegetation is established and becomes self-generating, (vi) Hazardous waste such as, waste oil, lubricants, resin, and coal tar etc. should be disposed off as per provisions of Hazardous Waste Management Rules, 2016, as amended from time to time. Responsibility: Individual Mine Lease Holders.
26. **Ecology/Biodiversity (Flora-Fauna) Related:** (i) As per the Red List of IUCN (International Union for Conservation of Nature), six floral species and 21 faunal species have been reported to be under threatened, vulnerable & endangered category. Protection of these floral and faunal species should be taken by the State Forest & Wildlife Department on priority, particularly in the mining zones, if any, (ii) The mines falling within 5-10 km of the Karo- Karampada Elephant corridor buffer need to take precautionary measures during mining activities. The forest and existing elephant corridor routes are to be protected and conserved. Improvement of habitat by providing food, water and space for the elephants is required to be ensured to avoid Man- Elephant conflicts. Though as per the records of State Forest Department, movement of elephants in the Karo-Karampada elephant corridor within 10 km distance from the mines in Joda and Koira is not observed, the Forest Department shall further record and ensure that elephant's movement is not affected due to mining activities, (iii) All precautionary measures should be taken during

mining operation for conservation and protection of endangered fauna namely elephant, sloth bear etc. spotted in the study area. Action plan for conservation of flora and fauna should be prepared and implemented in consultation with the State Forest and Wildlife Department within the mine lease area, whereas outside the mine lease area, the same should be maintained by State Forest Department, (iv) Afforestation is to be done by using local and mixed species saplings within and outside the mining lease area. The reclamation and afforestation is to be done in such a manner like exploring the growth of fruit bearing trees which will attract the fauna and thus maintaining the biodiversity of the area. As afforestation done so far is very less, forest department needs to identify adequate land and do afforestation by involving local people in a time bound manner, (v) Green belt development carried out by mines should be monitored regularly in every season and parameters like area under vegetation/plantation, type of plantation, type of tree species /grass species/scrubs etc., distance between the plants and survival rate should be recorded, (vi) Green belt is an important sink of air pollutants including noise. Development of green cover in mining area will not only help reducing air and noise pollution but also will improve the ecological conditions and prevent soil erosion to a greater extent. Further, selection of tree species for green belt should constitute dust removal/dust capturing plants since plants can act as efficient biological filters removing significant amounts of particulate pollution. Thus, the identified native trees in the mine area may be encouraged for plantation. Tree species having small leaf area, dense hair on leaf surface (rough surface), deep channels on leaves should be included for plantation, (vii) Vetiver plantation on inactive dumps may be encouraged as the grass species has high strength of anchoring besides medicinal value, (viii) Details of compensatory afforestation done should be recorded and documented by respective forest divisions, and State Forest Department should present mine-wise annual status, along with expenditure details, (ix) Similarly, Wildlife Department is also required to record and document annual status of wildlife in the region and should identify the need for wildlife management on regional level, (x) Maintenance of the ecology of the region is prime responsibility of the State Forest and Wildlife Department. They need to periodically review the status and identify the need for further improvement in the region. The required expenditure may be met from the funds already collected in the form of compensatory afforestation and wildlife management. Further, additional fund, if required can be sought from DMF. Responsibility: Individual Mine Lease Holders and State Forest & Wildlife Department.

27. **Socio-Economic Related:** (i) Public interaction should be done on regular basis and social welfare activities should be done to meet the requirements of the local communities. Further, basic amenities and infrastructure facilities like education, medical, roads, safe drinking water, sanitation, employment, skill development, training institute etc. should be developed to alleviate the quality of life of the people of the region, (ii) Land outtees and land losers/affected people, if any, should be compensated and rehabilitated as per the national/state policy on Resettlement and Rehabilitation, (iii) The socioeconomic development in the region should be focused and aligned with the guidelines/initiatives of Govt, of India/ NITI Aayog / Hon'ble Prime Minister's Vision centring around prosperity, equality, justice, cleanliness, transparency, employment, respect to women, hope etc. This can be achieved by providing adequate and quality facilities for education, medical and developing skills in the people of the region. District administration in association with mine lease holders should plan for "*Samagra Vikas*" of these blocks well as other blocks of the district. While planning for different schemes in the region, the activities should be prioritized as per Pradhan Mantri Khanij Kshetra Kalyan Yojna (PMKKKY), notified by

Ministry of Mines, Govt, of India, vide letter no. 16/7/2017-M.VI (Part), dated September 16, 2015. Responsibility: District Administration and Individual Mine Lease Holders.

28. **Road Transport Related:** (i) All the mine lease holders should follow the suggested ore transport mode (SOTM) based on its EC capacity within next 5 years, (ii) The mine lease holders should ensure construction of cement road of appropriate width from and to the entry and exit gate of the mine as suggested in Chapter 10. Further, maintenance of all the roads should be carried out as per the requirement to ensure dust free road transport, (iii) Transportation of ore should be done by covering the trucks with tarpaulin or other suitable mechanism so that no spillage of ore/dust takes place. Further, air quality in terms of dust, PM₁₀ should be monitored near the roads towards entry & exit gate on regular basis, and be maintained within the acceptable limits. Responsibility: Individual Mine Lease Holders and Dept, of Steel & Mines.
29. **Occupational Health Related:** (i) 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 periodically, (ii) Occupational health surveillance program for all the employees/workers (including casual workers) should be undertaken periodically (on annual basis) to observe any changes due to exposure to dust, and corrective measures should be taken immediately, if needed, (iii) Occupational health and safety measures related awareness programs including identification of work related health hazard, training on malaria eradication, HIV and health effects on exposure to mineral dust etc., should be carried out for all the workers on regular basis. A full time qualified doctor should be engaged for the purpose. Periodic monitoring (on 6 monthly basis) for exposure to respirable minerals dust on the workers should be conducted, and record should be maintained including health record of all the workers. Review of impact of various health measures undertaken (at an interval of 3 years or less) should be conducted followed by follow-up of actions, wherever required. Occupational health centre should be established near mine site itself. Responsibility: Individual Mine Lease Holders and District Administration (District Medical Officer),
30. **Reporting of Environmental Sustainability Achievement:** All the mines should prepare annual environmental sustainability report (ESR), highlighting the efforts made towards environmental protection with respect to different environmental components vis-a-vis production performance of the mine on monthly basis. The data collected as per EC and CTE/CTO conditions should be utilized to prepare the annual sustainability report. The mines performing high with effective environmental safeguards may be suitably recognized/rewarded. "Star Rating Format" formulated by the Ministry of Mines along with environmental sustainability report may be used,
31. **Environmental Monitoring Requirements at Regional Level:** Apart from strict compliance and monitoring by individual mine lease holder, there is a need for simultaneous monitoring in each of the regions by competent expert agencies under the guidance/ supervision of concerned regulatory agency. Details of the studies required to be done on regular basis (continuously for 5 years) through responsible agency (organization of national/state repute) and time frame are suggested in Table.

Table: Suggested Environmental Monitoring Requirements and Action Plans at

Sl. No.	Study component / Action Plan	Responsibility	Monitoring and Reporting Time Frame (Approx.)
1.	Environmental Quality Monitoring with respect to Air, Water, Noise and Soil Quality in each region (Joda, Koira and Baripada/Rairangpur) as per specified frequency shall be done by a third party (preferably Govt.) and/or laboratory approved/ recognized by NABET/ CPCB/ SPCB/ MoEF&CC. All the water bodies (rivers, nalias, ponds etc.) shall be monitored. National/State level research/ academic institutes may be involved initially for couple of years to streamline the activity. The report shall be brought out annually by June each year. The study shall be conducted in consultation with MoEF&CC-RO.	SPCB	Continuous Annually
	Installation of online ambient air quality monitor for PM10, PMP.S, SOx and NOx within the mine havina more than 3 MTPA EC Caoacitv	Respective Mine Lease Holders	Continuous Annually
	Installation of online ambient air quality monitor for PM ₁₀ , PM _{2.5} , SOx and NOx in the Joda and Koira Region (total 11 locations).	SPCB	Continuous Annually
2.	Status of flora and fauna in each of the regions shall be assessed on annual basis. Changes, if any, taking place in the region shall be brought out clearly. The study shall be conducted in consultation with State Forest and Wildlife Department.	State Forest & Wildlife Dept.	Annually in mining zone and once in 3 years in the region
3.	Socio-economic study incorporating developments taking place in each of the region, CSR initiatives made by the mining companies shall be conducted on annual basis. Further, micro level developmental needs shall be clearly brought out in the report for each region. The study shall be conducted in consultation with district administration.	Respective District Administration	Annually
4.	A detailed hydro-geological study in each of the regions shall be	SPCB	Once in 2 years

Sl. No.	Study component / Action Plan	Responsibility	Monitoring and Reporting Time Frame (Approx.)
	conducted in an integrated manner in consultation with Regional Director, Central Ground Water Board. Accordingly, all project proponents shall implement suitable conservation measures to augment ground water resources in the area.		
5.	The State Govt. shall ensure construction and maintenance of dust free common roads/ appropriate rail network for transport of ore from mines to the consumer end.	Dept. of Steel & Mines	12 months for road network and 5-7 years for rail network
6.	Construction and maintenance of dust free roads from respective mine to the main road	Respective Mine Lease Holders	Continuous 6 months
7.	Traffic/road inspection study addressing the condition of traffic/roads leading to different mines and connecting to different railway sidings shall be undertaken on annual basis. Further, detailed traffic study shall be undertaken on every 5 yearly basis to ensure adequacy of road/rail infrastructure in each of the regions. The study can be undertaken through national/ state level research/ academic institute (such as CSIR-CRRI, New Delhi).	Dept. of Steel & Mines	Continuous 6 months
8.	Assessment of land use/ land cover changes in each of the regions, with particular focus on mining areas, afforestation activities, variation in flow path of various water bodies etc. using remote sensing data	ORSAC	Annually
9.	R&D Studies for utilization of low-grade iron ore	Dept. of Steel & Mines through R&D / Academic Institutes	Upto 45% by 2020 and upto 40% by 2025

The data so generated for the region should be made available on the website of Department of Steel & Mines and also at MoEF&CC website, so that it can be effectively utilized by Individual Mine Lease Holders for preparing EIA/ EMP reports. This will meet the requirement for separate one season baseline environmental quality data collection by the individual proponents, if the mine proposed is in the same study region. Further, MoEF&CC through EAC1 can also utilize the data base available in evaluating the proposals for expansion of existing mines or new mines while granting

ToR or EC to the mine, taking an holistic view of the region. State Govt, of Odisha should bring out an integrated environmental sustainability report for each of the regions (mainly for Joda and Koia region) incorporating ESR of individual mines and data collected in the region through various agencies, once in 5 years, to plan level of scientific and sustainable mining for the next 5 years.

32. Institutional Mechanism for Implementation of Environmentally Sustainable Mining: The present study is not a one-time study, but a process to ensure environmentally sustainable mining activities in the region on long term basis. Looking into the large-scale mining activities and long term perspective for mining vis-a-vis environmentally sustainable mining and upliftment of people of the region, there is a need to create an agency, who will integrate all the aspects relating to sustainable mining in the region on long term basis. It could be a SPV of Govt, of Odisha or a cell within the overall control and supervision of Dept, of Steel & Mines, with members from

IBM, GSI, OSPCB, MoEF&CC-RO and other concerned Departments and Mine Owners (EZMA), District Administration. It is found that the strong database available for the region needs to be taken into account to map and establish environmental quality of the region on daily, monthly, seasonal and annual basis. Further, the efforts and initiatives of the mines towards environmental protection as well as upliftment of the people of the region are required to be integrated, and a systematic plan at the block/regional level needs to be framed for the overall benefit of the local society, region, district, state and the country as a whole. It will be desirable to have proper environmental quality data management and analysis by NEERI or any other agency for next 5 years (six monthly compliance reports followed by field verification) ensuring sustainable mining practices in the region leading to an overall development of the region. District Mineral Funds should be utilized appropriately for various developmental activities/needs of the region. Further, an environmental sustainability report incorporating environmental status of region coupled with social upliftment may be brought out by SPCB or any other authorized agency on annual basis. This report can be used for supporting the regional EIA study, and also need for environmental quality monitoring by individual mine seeking environmental clearance for new mine/ expansion of mine, including public hearing. Since, outcome of the above study reports shall be in the overall interest of all the stakeholders (including local population) of the region, further planning for the region shall warrant cooperation and assistance of all the stakeholders (mine operators, industries, transporters, State & Central Government Offices, MoEF&CC, CPCB, SPCB, Dept, of Steel & Mines, IBM, IMD, NGOs and local people) in sharing the relevant data/information/ reports/documents etc. to continuously improve upon the environmentally sustainable development plan for economic growth in mining sector as well as for improvement in quality of life of the people of the region.

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S RENEWABLE ENVIROGIC PVT. LTD. FOR SETTING UP A COMMON BIO-MEDICAL WASTE TREATMENT FACILITY (CBMWTF) OVER LEASE AREA 0.60 HA/1.5 ACRES LOCATED AT VILLAGE - SIALBAHALI, TAHASIL -BALANGIR, DIST-BALANGIR OF SRI DEBASIS TRIPATHY – EC.

A. SPECIFIC CONDITION:

1. All the recommendations, mitigation measures, environmental protection measures and safeguards proposed in the EIA report of the project submitted by project proponent vide commitments made during presentation before SEAC and proposed in the EIA report shall be strictly adhered to in letter and spirit.
2. The unit shall strictly comply with the CPCB guidelines for setting up the Common Bio-Medical Waste Treatment Facility. (CBWTF)
3. Proponent shall strictly comply the design criteria for incinerator, autoclave, shredder and all other requirements including bar-coding etc. as per the CPCB guidelines.
4. The unit shall strictly setup the dry technology system.
5. The unit shall strictly ensure mercury waste management at health care facility as per the CPCB guidelines.
6. The unit shall establish Standard operating Procedure for waste collection, handing transportation, treatment and disposal as per Biomedical Waste Management Rules 2016.
7. Zero Liquid Discharge (ZLD) status shall be maintained all the time.
8. There shall be no drainage connections from the treatment shed.

B. CONSTRUCTION PHASE

9. Water demand during construction shall be reduced by use of curing agents, super plasticizers and other best construction practices.
10. Project proponent shall ensure that surrounding environment shall not be affected due to construction activity.
11. Construction materials shall be covered during transportation and regular water sprinkling shall be done in vulnerable areas for controlling fugitive emission.
12. All required sanitary and hygienic measures shall be provided before starting the construction activities and to be maintained throughout the construction phase.
13. First Aid Box shall be made readily available in adequate quantity at all times.
14. The Project proponent shall strictly comply with the building and other construction workers (Regulation of Employment) & conditions made there under and their subsequent amendments. Local bye laws of concern Authority shall be complied in letter and spirit.

15. Ambient noise levels shall conform to residential standard both during day and night. Incremental pollution load on the ambient air & noise quality shall closely be monitored during construction phase.
16. Use of Diesel Generator (DG) sets during construction phase shall be strictly equipped with acoustic enclosure and shall conform to the EPA rules for air and noise emission standards.
17. Safe disposal of sewage and solid wastes generated during the construction phase shall be ensured.
18. All top soil excavated during construction activity shall be used in horticultural/ landscape development within the project site.
19. Excavated earth to be generated during the construction phase shall be utilized within the premises to the maximum extent possible and balance quality of excavated earth shall be disposed off with the approval of the competent authority after taking the necessary precautions of general safety and health aspects. Disposal of the excavated earth during construction phase shall create adverse effect on neighboring communities.
20. PP shall ensure use of eco-friendly building materials including fly ash bricks, fly ash paver blocks, ready Mix concrete (RMC) and lead-free paints in the project.
21. Fly ash be used in the construction wherever applicable as per provisions of fly ash Notification under the EP Act, 1986 and its subsequent amendments from time to time, regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to all surroundings.

C. OPERATION PHASE:

22. Consent to operate shall be obtained from OSPCB under the Air (Prevention & control of Pollution) Act, 1981 and Water (Prevention & control of Pollution) Act 1974 before operation, failing which the Environment Clearance herein shall be deemed to be withdrawn.
23. Authorization from State Pollution Control Board, Odisha shall be obtained as applicable under Bio Medical Waste Management Rules 2016 and its subsequent amendments from time to time.
24. The Biomedical wastes shall be managed in accordance and compliance with the Bio medical waste Management Rules 2016 and its subsequent amendments from time to time.
25. Incinerated ash, used oil, sludge, treated biomedical waste and ETP sludge should be disposed in accordance with BMW Rules, 2016/ Hazardous and other Waste (Management & Transboundary Movement) Rules 2016 and its subsequent amendments issued from, time to time.
26. The PP shall comply with the Environmental standards notified by MOEF& CC for incinerators along with the technology/guidelines.
27. Guidelines published the Central pollution Control board from time to time for common bio medical waste treatment published shall be referred for implementation.
28. There should not be any spillage from the transportation vehicles.

29. The PP will set up separate environmental management cell for effective implementation of stipulated environmental safeguards under the supervision of Senior Executive.
30. All the recommendations of EMP shall be strictly complied.
31. The environmental safeguards containing the EIA report shall be implemented in letter & spirit.
32. Necessary provision shall be made for firefighting facilities within the complex.
33. Treated flue gas emissions discharged through stack to atmosphere shall always be less than the specific emission standards.
34. PP shall ensure regular operation and maintenance of the ETP and printed logbook shall be maintained.
35. All the pipelines carrying water/waste water should be distinguished using colour coding on raw water pipes and re use lines of treated water.
36. Utilization of Diesel power generating sets is subject to power failure condition only. The DG sets proposed as a source of power back up during operation phase should be of enclosed type, low sulphur diesel run and confirm to rules made under the Environment (Protection) Act, 1986. The DG sets should be subjected to periodic noise and stack monitoring.
37. Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
38. Energy conservation measures such as LED light for common lighting of areas, signage etc should be adopted.
39. The unit shall develop 33% of plot area (including existing green belt) as a green belt within premises as per the CPCB guidelines.
40. Total water requirements for the project shall not exceed 09 KL/day. Unit shall reuse treated waste water for lime slurry preparation for quenching process as well as floor and vehicle washing to the maximum extent. Hence, fresh water requirement shall not exceed 09 KL/day and it shall be met through PWD water supply only. Prior permission from the concerned authority shall be obtained for withdrawal of water.
41. Water meter shall be installed and its record of daily water consumptions shall be maintained.
42. The industrial effluent generation from the project shall not exceed 08 KL/day.
43. Waste water generation from floor washing, vehicle washing, domestic waste water and autoclaving (08 KL/day) shall be treated in proposed ETP. (Cap.10.0 KL/Day).
44. Entire quantity of treated waste water shall be reused for individual purpose within the premises after conforming the (OSPCB) norms.
45. The unit shall provide adequate effluent treatment plant (ETP) comprises of Primary, tertiary treatment plants and operated regularly and efficiently so as to ensure for quenching process.
46. Separate energy meter shall be provided at ETP. A proper operation logbook of the ETP

containing records of quantities and qualities of treated effluent.

47. The Zero Liquid Discharge (ZLD) condition to be achieved with utilizing treated effluent for lime slurry preparation for spraying in reactor for quenching process as well as floor and vehicle washing.
48. The Project proponent shall provide electromagnetic flow meter at the inlet & outlet of the water supply, Inlet & Outlet of the ETP and shall maintain a record of readings of each such meter on daily basis.
49. The quantity of fresh water usage and water recycling shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the OSPCB, State Level Environment Impact Assessment Authority & Regional Office, MoEF& CC along with six monthly monitoring reports.

D. AIR:

50. Unit shall provide Lime Reactor, Air cooled gas cooler, Sodium Carbonate injection, Activated carbon injection system and Bag Filter with adequate stack height as APCM within incinerator as per the CPCB and relevant guidelines.
51. Regular monitoring of ground level concentration of PM10, PM2.5, NOx and CO shall be carried out at the site and downwind direction and its records shall be maintained. Ambient air quality levels shall not exceed the standards stipulated by the CPCB. If at any stage these levels are found to exceed the prescribed limits, necessary additional\control measures shall be taken immediately.
52. Proponent shall strictly follow the odour control measures as suggested in Environmental Management Plan.
53. Proponent shall strictly follow the Environmental Monitoring Program (EMP) for ambient Air Quality Monitoring (AAQM).
54. Treated flue gas emissions discharged through stack to atmosphere shall always be less than CPCB/OSPCB stipulated emission standards.
55. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution and shall conform to the EPA Rules for air and noise emission standards.
56. A green belt shall be developed all around the plant boundary and also along the roads to mitigate fugitive and transport dust emission.

E. WASTE MANAGEMENT:

57. The company shall strictly comply with the rule and regulations with regards to handling and disposal of Hazardous waste in accordance with the Hazardous and Other wastes (Management and Trans boundary Movement) Rules 2016, as may be amended from time to time. Authorization of the OSPCB shall be obtained for collection/treatment/storage/disposal of hazardous wastes.
58. Hazardous wastes shall be dried, packed and stored in separate designated hazardous waste storage facility with concrete flooring and leachate collection facility, before its disposal and handled as per the Hazardous Waste Rules 2016.
59. Incinerator Ash, ETP sludge & sludge shall be disposed in accordance with BMW Rules,

2016/ Hazardous and other Waste (Management & Transboundary Movement) Rules 2016 and its subsequent amendments issued from time to time.

60. Treated Biomedical plastic waste shall be sold out to OSPCB Authorized Recyclers only.
61. Used oil shall be either reused for lubrication in plant machineries or sold out to OSPCB registered/ Authorized Recyclers.
62. Discarded container/bags shall be either reused or sold only to OSPCB Authorized Recyclers.
63. Treated glass waste shall be sold out to OSPCB Authorized Recyclers only.
64. Sharp waste shall be disposed through in-house designated concrete sharp pit or as per the BMW Rules, 2016 and its amendments issued from time to time.
65. Trucks/Tankers used for transportation of hazardous waste shall be in accordance with the provisions under the Motor Vehicle Act, 2019 and rules made there under.
66. The design of the Trucks/tankers shall be such that there is no spillage during transportation.
67. All possible efforts shall be made for Co-Processing of the Hazardous waste prior to disposal into TSDF/CHWTF.
68. Management of fly ash (If any) shall be as per the Fly ash Notification 2009 & its amendment time to time and it shall be ensured that there is 100% utilization of fly ash to be generated from the unit.

F. SAFETY:

69. The occupier/Plant Manger shall strictly comply with the provisions under the Factories Act and other relevant State laws.
70. The project authorities shall strictly comply with the provisions made in Manufacture, Storage and Import of Hazardous Chemicals Rules (MSIHC) 1989, as amended time to time and the Public Liability Insurance Act for handling of hazardous chemicals etc. Necessary approvals from the Chief Controller of Explosives and concerned Govt. Authorities shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans have to be prepared and implemented.
71. Sufficient peripheral open passage shall be kept in the margin area for free movement of fire tender/emergency vehicle around the premises.
72. Sufficient number of fire extinguishers shall be provided near the plant and storage area.
73. All necessary precautionary measures shall be taken to avoid any kind of accident during loading, unloading and transportation of biomedical waste.
74. The project management shall ensure to comply with all the environment protection measures, risk mitigation measures and safeguards mentioned in the Risk Assessment report.
75. Only flame proof electrical fittings shall be provided in the plant premises.
76. All the waste storage room shall be marked with colour coding as per the CPCB guidelines time to time.

77. Proponent shall tie up with nearby health care facility for any emergency cases.
78. Personal Protective equipment's (PPEs) shall be provided to workers and its usage shall be ensured and supervised.
79. First Aid Box in the unit shall be made readily available in adequate quantity.
80. Training shall be imparted to all the workers on safety and health aspects of biomedical waste handling.
81. Occupational health surveillance of the workers shall be done and its records shall be maintained. Pre-employment and periodical medical examination for all the workers shall be undertaken as per the Factories Act & Rules.
82. Transportation of biomedical waste shall be done as per the provisions of the Motor Vehicle Act & Rules.
83. The company shall implement all preventive and mitigation measures suggested in the Risk Assessment Report.

G. NOISE:

84. The Overall noise level in and around the plant area shall be kept well within the standards by providing noise control measures including engineering controls like acoustic insulation hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise level shall conform to the standards prescribed under The Environment (Protection) Act, 1986 & Rules.

H. GREEN BELT AND OTHER PLANTATION:

85. The Unit shall develop green belt within premises as per the CPCB guidelines.
86. Drip irrigation/low-angle sprinkler system shall be used for the green belt development within the premises.
87. The area earmarked as green area shall be used only for plantation and shall not be altered for any other purpose.

I. OTHER CONDITIONS

88. Rain water recharging of surface as well as rooftop runoff shall be undertaken and the same water shall be used for the various activities of the project to conserve fresh water as well as to recharge ground water. Before recharging the surface runoff, pre-treatment must be done to remove suspended matter.
89. All the commitments and undertakings given to the SEAC during the appraisal process for the purpose of Environmental Protection and Management shall be strictly adhered to.
90. The project proponent shall also comply with any additional condition that may be imposed by the SEAC or the SEIAA or any other competent authority for the purpose for the environmental protection and management.
91. In the event of failure of any pollution control system adopted by the unit, the unit shall be safely closed and shall not be restarted until the desired efficiency of the control equipment has been achieved.
92. The project authorities must strictly adhere to the stipulations made by the Odisha State

Pollution Control Board (OSPCB), State Government and any Statutory Authority.

93. During biomedical waste unloading there shall be no spillages and garland drain shall be constructed to avoid mixing of accidental spillages with domestic wastewater or storm water.
94. Industrial Grade flooring with impervious layer shall be provided in the work areas, biomedical waste storage areas and chemical handling areas to minimize soil contamination.
95. Renewable power/ solar/wind / hybrid shall be installed within the premises and on the roof area of the administrative part of the building (around 5%).
96. No further expansion or modifications in the plant likely to cause environmental impacts shall be carried out without obtaining prior environmental Clearance from the concerned Authority.
97. The above conditions will be enforced, inter-alia under the provisions of water (Prevention & Control of Pollution) Act 1974, air (Prevention & Control of Pollution) Act 1981, the Environment Protection Act 1986, Hazardous & other Wastes (Management & Transboundary Movement Rules, 2016 and the Public Liability Insurance Act 1991 along with their amendments and rule.
98. The Project management shall ensure that the unit complies with all the environmental protection measures, risk mitigation measures and safeguards recommended in the EMP report and Risk assessment study report as well as proposed by project Proponent.
99. Further this EC is issued without prejudice to the action initiated in the Environment (*Protection*) Act or any court case pending in the court of law. As such, it does not mean that the PP has not violated any environmental laws in the past and whatever decision under the said Act by the Hon'ble Court will be binding on the PP. **Hence, this environmental clearance does not give immunity to the PP in the case complaint is filed against, if any, or action initiated under the said Act.**
100. In case of submission of false document and non-compliance to any of the stipulated conditions, this Authority will revoke or suspend the EC without any intimation and initiate appropriate legal action under the Environment (*Protection*) Act, 1986 (*as amended till date*).
101. E-waste generated in the complex should be managed as per CPCB guidelines on E-waste management Rules 2016.
102. The SEIAA, Odisha reserves their right to add any stringent condition or to revoke the environmental clearance, if conditions stipulated above are not implemented to the satisfaction of the Authority or for that matter, for any other administrative reasons.
103. **In addition**, the following conditions shall be specifically complied with:
 - (i) Project proponent shall advertise at least in two local newspapers widely circulated in the region around the project, one of which shall be in the Odia language within **seven days** of receipt of this communication, informing that the proposed project has been accorded prior Environmental Clearance (EC) and the copies of the clearance letter will be available on the PP website.

- (ii) Validity of the Environmental Clearance (EC) accorded shall be for a period of 07 (seven) years from the date of its issue.
- (iii) These stipulations would be enforced among others under the provisions of 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 EIA Notification, 2006.
- (iv) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by State Environment Impact Assessment Authority.
- (v) Status of compliance to the various stipulated environmental conditions and environmental safeguards will be uploaded by the project proponent in its website.
- (vi) Any appeal against this prior environmental clearance shall lie with the National Green Tribunal (NGT), if preferred, within 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010 (Central Act 19 of 2010).

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

Stipulated Conditions:

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

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

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

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

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

Annexure - E

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

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

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

PART A - SPECIFIC CONDITIONS:

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

TOPOGRAPHY AND NATURAL DRAINAGE

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

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

8. As proposed, fresh water requirement from Ground water / Bore well shall not exceed 525 KLD.
9. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.
10. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and

SEIAA, Odisha along with six monthly Monitoring reports.

11. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
12. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
13. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
14. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
15. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. As proposed 33 (thirty-three) nos. of rain water harvesting recharge pits shall be provided.
16. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawal of water.

SOLID WASTE MANAGEMENT

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

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

SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacities 560 KLD. The treated effluent from STP shall be recycled/re-used for flushing, gardening and washing purpose. Surplus treated waste water shall be discharged to the drain provided by BMC for this project.
25. Clinical waste water shall be treated in ETP of capacity 170 KLD.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/ disposal/drainage systems along with the final disposal point.
27. No sewage or untreated effluent water would be discharged through storm water drains.
28. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
29. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

ENERGY

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

institutional building or as per the requirement of the local building bye-laws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

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

AIR QUALITY AND NOISE

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

GREEN COVER

42. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed 18,108.87 m² (22%) of the plot area shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

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

TRANSPORT

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

ENVIRONMENT MANAGEMENT PLAN

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

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

OTHERS

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

PART B – GENERAL CONDITIONS

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

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

6. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
7. These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and the EIA Notification, 2006.
8. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the SEIAA, Odisha. The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of MoEF&CC, Bhubaneswar.
9. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
10. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
12. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of EC conditions and shall also be sent to the respective Regional Offices of MoEF&CC by E-mail.

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S RIVER FRONT DEVELOPERS PVT. LTD. FOR PROPOSED RESIDENTIAL PROJECT OVER REVENUE PLOT NO. 33(P) & 32(P) OVER AN BUILT-UP AREA OF 32451.07 M² AT MOUZA BIDYADHARPUR, UNDER SECTOR-11, CUTTACK SADAR, TAHASIL – BARANG, DIST – CUTTACK OF SRI MANOJ KUMAR SAHOO – EC.

PART A - SPECIFIC CONDITIONS:

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

TOPOGRAPHY AND NATURAL DRAINAGE

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 89 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

that there is no impact on other users.

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of adequate 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 135 KLD. The treated effluent from STP shall be reused for flushing, horticulture & Filter backwash.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

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

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

AIR QUALITY AND NOISE

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

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

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 4890.37 sqm (approx. 24.37% of total area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

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

TRANSPORT

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

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

ENVIRONMENT MANAGEMENT PLAN

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

OTHERS

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

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

PART B – GENERAL CONDITIONS

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

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

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

**CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR
DECORATIVE STONE**

A. Specific conditions

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

B. Standard conditions

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

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

9. Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of PM10 and PM2.5 such as haul road, loading and unloading point and transfer points. Fugitive dust emissions from all the sources shall be controlled regularly. It shall be ensured that the Ambient Air Quality parameters conform to the norms prescribed by the Central Pollution Control Board in this regard. Monitoring of Ambient Air Quality to be carried out based on the Notification 2009, as amended from time to time by the Central Pollution Control Board.
10. Regular monitoring of ground water level and quality shall be carried out in and around the mine lease by establishing a network of existing wells and constructing new piezometers during the mining operation. The project proponent shall ensure that no natural water course and/or water resources shall be obstructed due to any mining operations. The monitoring shall be carried out four times in a year pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the data thus collected may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board.
11. Transportation of the minerals by road passing through the village shall not be allowed. A 'bypass' road should be constructed (say, leaving a gap of at least 200 meters) for the purpose of transportation of the minerals so that the impact of sound, dust and accidents could be mitigated. The project proponent shall bear the cost towards the widening and strengthening of existing public road network in case the same is proposed to be used for the Project. No road movement should be allowed on existing village road network without appropriately increasing the carrying capacity of such roads.
12. The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day light/night hours.
13. Sufficient number of Gullies to be provided for better management of water. Regular Monitoring of pH shall be included in the monitoring plan and report shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
14. There shall be planning, developing and implementing facility of rainwater harvesting measures on long term basis and implementation of conservation measures to augment ground water resources in the area in consultation with Central Ground Water Board.
15. The Project Proponent has to take care of gullies formed on slopes. Dump mass should be consolidated with proper filling/leveling with the help of dozer/compactors.
16. The reclamation at waste dump sites shall be ecologically sustainable. Scientific reclamation shall be followed. The local species may be encouraged and species are so chosen that the slope, bottom of the dumps and top of the dumps are able to sustain these species. The aspect of the dump is also a factor which regulates some climatic

parameters and allows only species adopted to that micro climate.

17. The top soil, if any, shall temporarily be stored at earmarked site(s) only and it should not be kept unutilized for long. The topsoil shall be used for land reclamation and plantation. The over burden (OB) generated during the mining operations shall be stacked at earmarked dump site(s) only and it should not be kept active for a long period of time. The maximum height of the dumps shall not exceed 8m and width 20 m and overall slope of the dumps shall be maintained to 45°. The OB dumps should be scientifically vegetated with suitable native species to prevent erosion and surface run off. In critical areas, use of geo textiles shall be undertaken for stabilization of the dump. The entire excavated area shall be backfilled and afforested. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office on six monthly basis.
18. Catch drains and siltation ponds of appropriate size shall be constructed around the mine working, mineral and OB dumps to prevent run off of water and flow of sediments directly into the river and other water bodies. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly. The drains, settling tanks and check dams of appropriate size, gradient and length shall be constructed both around the mine pit and over burden dumps to prevent run off of water and flow of sediments directly into the river and other water bodies and sump capacity should be designed keeping 50% safety margin over and above peak sudden rainfall (based on 50 years data) and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material. Sedimentation pits shall be constructed at the corners of the garland drains and desilted at regular intervals.
19. Plantation shall be raised in a 7.5m wide green belt in the safety zone around the mining lease, backfilled and reclaimed area, around water body, along the roads etc. by planting the native species in consultation with the local DFO/Agriculture Department and as per CPCB Guidelines. The density of the trees should be around 2500 plants per ha. Greenbelt shall be developed all along the mine lease area in a phased manner and shall be completed within first five years.
20. The Project Proponent shall make necessary alternative arrangements, where required, in consultation with the State Government to provide alternate areas for livestock grazing, if any. In this context, Project Proponent should implement the directions of the Hon'ble Supreme Court with regard to acquiring grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded against felling and plantation of such trees should be promoted.
21. The project proponent shall take all precautionary measures during mining operation for conservation and protection of endangered fauna, if any, spotted in the study area. Action plan for conservation of flora and fauna shall be prepared and implemented in consultation with the State Forest and Wildlife Department. A copy of action plan shall be submitted to the Ministry of Environment, Forest and Climate Change and its Regional Office.
22. As per the Company Act, the CSR cost should be 2 % of average net profit of last three years. Hence CSR expenses should be as per the Company Act/Rule for the Socio

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

23. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
24. Measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in operations of HEMM, etc. should be provided with ear plugs / muffs.
25. Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
26. The project authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
27. The project proponent shall submit six monthly reports on the status of the implementation of the stipulated environmental safeguards to the Ministry of Environment, Forest and Climate Change, its Regional Office, Central Pollution Control Board and State Pollution Control Board.
28. A copy of clearance letter will be marked to concerned Panchayat / local NGO, if any, from whom suggestion / representation has been received while processing the proposal.
29. State Pollution Control Board should display a copy of the clearance letter at the Regional office, District Industry Centre and Collector's office/ Tehsildar's Office for 30 days.
30. The project authorities should advertise at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of the clearance letter informing that the project has been accorded environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at web site of the Ministry of Environment, Forest and Climate Change at www.environmentclearance.nic.in and a copy of the same should be forwarded to the Regional Office.
31. The SEIAA, Odisha may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
32. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
33. The above mentioned stipulated conditions shall be complied in a time-bound manner. Failure to comply with any of the conditions mentioned above may result in cancellation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S SHREE RAM CONSTRUCTION FOR COMMERCIAL BUILDING & MIG RESIDENTIAL APARTMENT (B+S+12) OVER TOTAL BUILT-UP AREA OF 33,841.83 SQM LOCATED AT MOUZA – PADMALAVA NAGAR, TAHASIL - BRANGA, PS - CUTTACK SADAR, CUTTACK, ODISHA OF SRI VINIT SETHIA – EC.

PART A - SPECIFIC CONDITIONS:

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

TOPOGRAPHY AND NATURAL DRAINAGE

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 136.89 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

that there is no impact on other users.

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

SOLID WASTE MANAGEMENT

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

generated from project shall be obtained.

SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacity 200 KLD. The treated effluent from STP shall be reused for flushing, horticulture & Filter backwash.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

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

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

AIR QUALITY AND NOISE

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

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

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 1427.82 sqm (21 % of Plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

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

TRANSPORT

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

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

ENVIRONMENT MANAGEMENT PLAN

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

OTHERS

59. Provisions shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
60. A First Aid Room shall be provided in the project both during construction and operations of the project.
61. The company shall draw up and implement corporate social Responsibility plan as per the Company's Act of 2013.
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3. Officials from the Regional Office of MoEF&CC, Bhubaneswar who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection.
4. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA, Odisha.
5. The SEIAA, Odisha reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
6. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
7. These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and the EIA Notification, 2006.
8. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the SEIAA, Odisha. The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of MoEF&CC, Bhubaneswar.
9. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
10. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The

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

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

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S MOTWANI CONSTRUCTIONS PVT. LTD. FOR RESIDENTIAL BUILDING PROJECT (S1+S2+S3+18) OVER AN BUILT-UP AREA 72498.42 SQM., LOCATED AT MOUZA - KORADAKANTA AND JHARPADA, TAHASIL -BHUBANESWAR, DIST - KHORDHA OF SRI PANKAJ MOTWANI (DIRECTOR) – EC.

PART A - SPECIFIC CONDITIONS:

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

TOPOGRAPHY AND NATURAL DRAINAGE

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 149 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

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

SOLID WASTE MANAGEMENT

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

SEWAGE TREATMENT PLANT

24. Sewage shall be treated in STP of capacity 300 KLD. The treated effluent from STP shall be reused for flushing, horticulture & Filter backwash.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

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

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

AIR QUALITY AND NOISE

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

ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 2490.00 sqm (19.29 % of Plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

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

TRANSPORT

46. A comprehensive mobility plan, as per Ministry of Urban Development best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation
47. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.
48. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
49. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
50. A dedicated entry/exit and parking shall be provided for commercial activities.
51. Barricades shall be provided around project boundary.
52. Speed of the vehicles shall be restricted upto 15 kmph by erecting speed bumps at regular intervals at project site and proper signage shall be provided for guided vehicular movement

and speed restrictions.

53. Parking shall be prohibited on the access road to the proposed project site.
54. Footpath shall be seamless with sufficient width.
55. No vehicles shall be allowed to stop and stand in front of the gate on main access.
56. A buffer of minimum 10 m shall be maintained between the entry/exit gate and the road to avoid traffic congestion.
57. The Traffic Management Plan prepared by the proponent shall be duly validated and certified by the State Concerned Competent Authority and shall have also their consent before implementation.

ENVIRONMENT MANAGEMENT PLAN

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

OTHERS

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

PART B – GENERAL CONDITIONS

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

Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

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

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S EVOS BUILDCON PVT. LTD. FOR EXPANSION OF RESIDENTIAL APARTMENT PROJECT OVER AN BUILT-UP AREA 23464.49 SQMT LOCATED AT PLOT NO. 552, KHATA NO. 313, MOUZA- SIPASARUBALI, PURI, ODISHA 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 firefighting equipment etc. as per National Building Code including protection measures from lightning etc.
3. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
4. The project proponent shall ensure that the guidelines for building and construction projects issued vide this Ministry's OM NO.19-2/2013-IA.III dated 9th June, 2015, are followed to ensure sustainable environmental management.
5. 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 186 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of adequate 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 290 KLD. The treated effluent from STP shall be reused for flushing, horticulture & Filter backwash.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

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

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

AIR QUALITY AND NOISE

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

ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 1526.50 sqm (20.5 % of Plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

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

TRANSPORT

46. A comprehensive mobility plan, as per Ministry of Urban Development best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation
47. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.
48. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
49. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
50. A dedicated entry/exit and parking shall be provided for commercial activities.
51. Barricades shall be provided around project boundary.
52. Speed of the vehicles shall be restricted upto 15 kmph by erecting speed bumps at regular intervals at project site and proper signage shall be provided for guided vehicular movement

and speed restrictions.

53. Parking shall be prohibited on the access road to the proposed project site.
54. Footpath shall be seamless with sufficient width.
55. No vehicles shall be allowed to stop and stand in front of the gate on main access.
56. A buffer of minimum 10 m shall be maintained between the entry/exit gate and the road to avoid traffic congestion.
57. The Traffic Management Plan prepared by the proponent shall be duly validated and certified by the State Concerned Competent Authority and shall have also their consent before implementation.

ENVIRONMENT MANAGEMENT PLAN

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

OTHERS

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

PART B – GENERAL CONDITIONS

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

Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

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

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR ROYAL HERITAGE RESIDENTIAL APARTMENT BUILDING PROJECT (S+6) OVER AN AREA 2.66AC. NEAR SHAILASHREE PALACE, GATE NO.1, PALACE LINE, KOSHAL CHOWK, BOLANGIR OF SRI NIRAJ AGRAWAL (TOTAL BUILT UP AREA - 24843.9 SQM) - EC.

PART A - SPECIFIC CONDITIONS:

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

TOPOGRAPHY AND NATURAL DRAINAGE

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 105 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of adequate 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 adequate capacity. The treated effluent from STP shall be reused for flushing, horticulture & Filter backwash.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

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

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

AIR QUALITY AND NOISE

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

ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 2155.356 m² (20 % of the total plot area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

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

TRANSPORT

46. A comprehensive mobility plan, as per Ministry of Urban Development best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation
47. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.
48. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
49. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
50. A dedicated entry/exit and parking shall be provided for commercial activities.
51. Barricades shall be provided around project boundary.
52. Speed of the vehicles shall be restricted upto 15 kmph by erecting speed bumps at regular intervals at project site and proper signage shall be provided for guided vehicular movement

and speed restrictions.

53. Parking shall be prohibited on the access road to the proposed project site.
54. Footpath shall be seamless with sufficient width.
55. No vehicles shall be allowed to stop and stand in front of the gate on main access.
56. A buffer of minimum 10 m shall be maintained between the entry/exit gate and the road to avoid traffic congestion.
57. The Traffic Management Plan prepared by the proponent shall be duly validated and certified by the State Concerned Competent Authority and shall have also their consent before implementation.

ENVIRONMENT MANAGEMENT PLAN

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

OTHERS

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

PART B – GENERAL CONDITIONS

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

Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

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

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S AMNS INDIA LIMITED FOR RESIDENTIAL TOWNSHIP OVER AN BUILT-UP AREA 62542.44 SQ.M LOCATED AT VILLAGE – CHAKRADHARPUR, TAHASIL KUJANG, PARADEEP, DIST - JAGATSINGHPUR OF SRI SUBRAHMANYA SHANBHOGUE TANTRADI (EXECUTIVE DIRECTOR) – EC.

PART A - SPECIFIC CONDITIONS:

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

TOPOGRAPHY AND NATURAL DRAINAGE

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 145 m³ per day.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

that there is no impact on other users.

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of 24 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 200 KLD. The treated effluent from STP shall be reused for flushing, horticulture & Filter backwash.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

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

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

AIR QUALITY AND NOISE

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

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

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 12121.72 m² (37.53 % of the plot area) of plot area shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

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

TRANSPORT

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

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

ENVIRONMENT MANAGEMENT PLAN

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

OTHERS

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

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

PART B – GENERAL CONDITIONS

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

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

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

Standard EC Conditions for River Valley and Hydroelectric projects

I. Statutory compliance:

- i) The project proponent shall obtain clearance from the National Board for Wildlife if applicable.
- ii) The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden, if applicable. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report, (in case of the presence of Schedule-I species in the study area).
- iii) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.

II. Air quality monitoring and preservation

- i) Regular monitoring of various environmental parameters viz., Water Quality, Ambient Air Quality and Noise levels as per the CPCB guidelines at designated locations shall be carried out on monthly basis and a detailed database of the same shall be prepared and recorded. This shall be used as a baseline data for post construction EIA / Monitoring purposes.
- ii) Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply prescribed standards.
- iii) Necessary control measures such as water sprinkling arrangements, etc. be taken up to arrest fugitive dust at all the construction sites.

III. Water quality monitoring and preservation

- i) Conjunctive use of surface water to be planned in the project to check water logging as well as to increase crops productivity. The field drains shall be connected with natural drainage system.
- ii) Remodeling of existing natural drains (link drains) and connecting them with irrigated land through constructed field drains, collector drains, etc. are to be ensured on priority basis.
- iii) Before impounding of the water, Cofferdams for both at the upstream and downstream are to be decommissioned as per EIA/EMP report so that once the project is commissioned; cofferdam should not create any adverse impact on water environment including the rock mass and muck used for the Cofferdam.
- iv) As the reservoir will be acting as balancing reservoir and there would be fluctuation of water level during peaking period, efforts be made to reduce impact on aquatic life including impacts during spawning period both at the upstream and downstream of the project.
- v) Water depth sensors shall be installed at suitable locations to monitor e- flow. Hourly data to be collected and converted to discharge data. The Gauge and Discharge data in the form of Excel Sheet be submitted to the Regional Office, MoEF&CC and to the CWC on

weekly basis.

- vi) Mixed irrigation shall be practiced and necessary awareness be given to all the farmers and trained in the use of such systems. Proper crops selection shall be carried out for making irrigation facility more effective.
- vii) On Farm Development (OFD) works like landscaping, land levelling, drainage facilities, field irrigation channels and farm roads, etc. should be taken up in phased manner prior to the start of irrigation in the entire command area. The Command Area Development Plan should be strictly implemented as proposed in the EIA/EMP report.

IV. Noise monitoring and prevention

- i) All the equipment likely to generate high noise shall be appropriately enclosed or inbuilt noise enclosures be provided so as to meet the ambient noise standards as notified under the Noise Pollution (Regulation and Control) Rules, 2000, as amended in 2010 under the Environment Protection Act (EPA), 1986.
- 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. Catchment Area Treatment Plan

Catchment Area Treatment (CAT) Plan as proposed in the EIA/EMP report shall be implemented in consultation with the State Forest Department and shall be implemented in synchronization with the construction of the project.

VI. Waste management

- i) Muck disposal be carried out only in the approved and earmarked sites. The dumping sites shall be located sufficiently away from the HFL of the river. Efforts be made to reuse the muck for construction and other filling purposes and balanced be disposed of at the designated disposal sites. Once the muck disposal sites are inactive, proper treatment measures like both engineering and biological measures be carried out so that sites are stabilized quickly.
- ii) Solid waste management should be planned in details. Land filling of plastic waste shall be avoided and instead be used for various purposes as envisaged in the EIA/EMP reports. Efforts be made to avoid one time use of plastics.

VII. Green Belt, EMP Cost, Fisheries and Wildlife Management

- i) Based on the recommendation of Cumulative Impact Assessment and Carrying capacity study of river basin or as per the ToR conditions or minimum 15% of the average flow of four consecutive leanest months, whichever value is higher, shall be released as environmental flow.
- ii) Detailed information on species composition particular to fish species from previous study/literature be inventoried and proper management plan shall be prepared for insitu conservation in the streams, tributaries of river and the main river itself for which adequate budget provision be made and followed strictly.
- iii) Wildlife Conservation Plan prepared for both core and buffer zones shall be implemented in consultation with the local State Forest Department.
- iv) To enrich the habitat of the project site, plantation shall be raised as envisaged in the EIA/EMP report. Plantation to be developed along the periphery of the reservoir in multi-layers with local indigenous species in consultation with the local State Forest Department.

- v) Fish ladder/pass as envisaged in the EIA/EMP report shall be maintained for migration of fishes. Regular monitoring of this facility be carried out to ensure its effectiveness.

VIII. Public hearing and Human health issues

- i) Resettlement & Rehabilitation plan be implemented in consultation with the State Govt, as approved by the State Govt.
- ii) Budget provisions made for the community and social development plan including community welfare schemes shall be implemented in to to.
- iii) Preventive measures viz. fuming and spraying of mosquito control shall be done in and around the labour colonies, affected villages, stagnated pools, etc. Provisions be made to not to create any stagnated pools to avoid creation of breeding grounds of the vector borne diseases.
- iv) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- v) Labour force to be engaged for construction works shall be examined thoroughly and adequately treated before issuing them work permit. Medical facilities shall be provided at the construction sites.
- vi) Early Warning Telemetric system shall be installed in the upper catchment area of the project for advance intimation of flood forecast.
- vii) Emergency preparedness plan be made for any eventuality of the dam failure and shall be implemented as per the Dam Break Analysis.

IX. Miscellaneous

- i) Skill mapping be undertaken for the youths of the affected project area and based on the skill mapping, necessary trainings to the youths be provided for their long time livelihood generation.
- 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 MoEF&CC as a part of six-monthly report.
- iii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly 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 Ministry/Regional Office along with

the Six-Monthly Compliance Report.

- v) Post EIA and SIA be prepared for the project through a third party and evaluation report be submitted to the Ministry after five years of commissioning of the project.
- vi) Multi-Disciplinary Committee (MDC) be constituted with experts from Ecology, Forestry, Wildlife, Sociology, Soil Conservation, Fisheries, NGO, etc. to oversee implementation of various environmental safeguards proposed in EIA/EMP report during construction of the project. The monitoring report of the Committee shall be uploaded in the website of the Company.
- vii) Formation of Water User Association/Co-operative be made involvement of the whole community be ensured for discipline use of available water for irrigation purposes.
- viii) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this shall also be displayed in the project proponent's website permanently.
- ix) 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.
- x) 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.
- xi) 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.
- xii) 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.
- xiii) The project proponent shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
- xiv) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- xv) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and also that during their presentation to the Expert Appraisal Committee.
- xvi) No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC).
- xvii) 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.
- xviii) The Ministry may revoke or suspend the clearance, if implementation of any of the above

conditions is not satisfactory.

- xix) The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xx) The Regional Office of this Ministry 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.
- xxi) 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.
- xxii) Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S DEVAVRAT HOMES PVT. LTD. FOR RESIDENTIAL BUILDING (2S+9) ON PLOT NO. 2428/3376, PLOT AREA - 6,555.91 SQM., LOCATED AT KALARAHANGA, BHUBANESWAR WITH TOTAL BUILT UP AREA - 30,629 SQM OF MRS. SUNITA CHOUDHARY (MANAGING DIRECTOR) – EC.

PART A - SPECIFIC CONDITIONS:

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

TOPOGRAPHY AND NATURAL DRAINAGE

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 97 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of adequate 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 200 capacity. The treated effluent from STP shall be reused for flushing, horticulture & Filter backwash.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

ENERGY

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

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

AIR QUALITY AND NOISE

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

ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.

GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 1376.74 sqm (approx. 21 % of total area) shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

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

TRANSPORT

46. A comprehensive mobility plan, as per Ministry of Urban Development best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
- Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - Traffic calming measures
 - Proper design of entry and exit points.
 - Parking norms as per local regulation
47. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is maintained and improved upon after the implementation of the project.
48. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.
49. Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
50. A dedicated entry/exit and parking shall be provided for commercial activities.
51. Barricades shall be provided around project boundary.
52. Speed of the vehicles shall be restricted upto 15 kmph by erecting speed bumps at regular intervals at project site and proper signage shall be provided for guided vehicular movement

and speed restrictions.

53. Parking shall be prohibited on the access road to the proposed project site.
54. Footpath shall be seamless with sufficient width.
55. No vehicles shall be allowed to stop and stand in front of the gate on main access.
56. A buffer of minimum 10 m shall be maintained between the entry/exit gate and the road to avoid traffic congestion.
57. The Traffic Management Plan prepared by the proponent shall be duly validated and certified by the State Concerned Competent Authority and shall have also their consent before implementation.

ENVIRONMENT MANAGEMENT PLAN

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

OTHERS

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

PART B – GENERAL CONDITIONS

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

Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

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

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S. SHEETAL REAL ESTATE PVT. LTD. FOR RESIDENTIAL-CUM-COMMERCIAL BUILDING PROJECT OVER AN BUILT-UP AREA 29298.50 SQMT LOCATED AT MOUZA - HULURUSINGHA, DIST. ANGUL OF SRI SUNIL AGARWAL - EC.

PART A - SPECIFIC CONDITIONS:

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

TOPOGRAPHY AND NATURAL DRAINAGE

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 57 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring that there is no impact on other users.

11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of 18 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 100 capacity. The treated effluent from STP shall be reused for flushing, horticulture & Filter backwash.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
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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.
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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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
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GREEN COVER

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m² of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping. As proposed approx. 1,118.33 m² i.e. 24.8% of the plot area shall be provided for green area development.

TOP SOIL PRESERVATION AND REUSE

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

TRANSPORT

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

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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.
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6. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
7. These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and the EIA Notification, 2006.
8. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the SEIAA, Odisha. The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of MoEF&CC, Bhubaneswar.
9. Any appeal against this clearance shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
10. A copy of the clearance letter shall be sent by the proponent to concerned Panchayat, Zilla Parisad / Municipal Corporation, Urban Local Body and the Local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the

Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.

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

CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR NAYAGARH IRON ORE MINES OF M/S K.C PRADHAN FOR ENHANCEMENT IN PRODUCTION CAPACITY FROM 80,000 TONNES / ANNUM TO 3,00,135 TONNES /ANNUM OF IRON ORE WITH OPENCAST SEMI-MECHANIZED MINING METHOD OVER ML AREA 24.570HA. LOCATED AT VILLAGE NAYAGARH, DIST – KEONJHAR OF SRI SIDHARTH PRADHAN (POWER OF ATTORNEY HOLDER) – EC.

(I) Statutory compliance

- (i) This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
- (ii) The Project proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August,2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.
- (iii) The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.
- (iv) This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project,
- (v) This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the project.
- (vi) Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board.
- (vii) The PP shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.
- (viii) The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made thereunder in respect of lands which are not owned by it.
- (ix) The Project Proponent shall follow the mitigation measures provided in MoEF&CC's Office Memorandum No. Z-11013/57/2014-IA.II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein Habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease

area”.

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

(II) Air quality monitoring and preservation

- (i) The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM₁₀, PM_{2.5}, NO₂, CO and SO₂ etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of transportation and use of heavy machinery in the impact zone. The ambient air quality shall also be monitored at prominent places like office building, canteen etc. as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the mine site.
- (ii) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM₁₀ and PM_{2.5} are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of

dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/ Central Pollution Control Board.

(III) Water quality monitoring and preservation

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

Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.

- (v) Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J-20012/1 /2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
 - (vi) The project proponent shall construct retaining wall and settling pond within the lease area. Further, check dams shall be constructed at strategic locations in which rain water passes in rainy season. Finally, the excess supernatant after sedimentation shall be allowed to spill away through stone pitch structure to the nearby valley.
 - (vii) De-silting of agricultural lands in buffer zone and beyond including nearby Nalas/rivers perennially periodically and perpetually caused due to wash up of minerals/OB/dumps shall be done as per SOP submitted. A legal affidavit shall be submitted within 6 months from the date of issue of Environmental Clearance to this effect with periodicity of de-silting.
 - (viii) Detail design of the existing retaining wall and the proposed for the expansion from a chartered Civil Engineer shall be submitted within 6 months from the date of issue of Environmental Clearance to ensure that no silt after wash up is escaped from the core / buffer zone of the mines.
 - (ix) An area of 3.40Ha shall be kept for public use as pond and road. Hence, remaining 52.956Ha shall be planted during life of the mine in a phased manner i.e. within a period of 20 years.
 - (x) Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of water recharged needs to be submitted to Regional Office, MoEF&CC annually.
 - (xi) Industrial waste water (workshop and waste water from the mine) should be properly collected and treated in an ETP as proposed so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.
 - (xii) The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board.
- (IV) Noise and vibration monitoring and prevention**
- (i) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS

guidelines.

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

(V) Mining Plan

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

(VI) Land reclamation

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

- (viii) The top soil, if any, shall temporarily be stored at earmarked site(s) within the mine lease only and should not be kept unutilized for long. The physical parameters of the top soil dumps like height, width and angle of slope shall be governed as per the approved Mining Plan and as per the guidelines framed by DGMS w.r.t. safety in mining operations shall be strictly adhered to maintain the stability of dumps. The topsoil shall be used for land reclamation and plantation purpose.
- (ix) The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

(VII) Transportation

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

(VIII) Green Belt

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

of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.

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

(IX) Public hearing and human health issues

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

- (iii) The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.
- (iv) The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x 14 inches and of good quality).
- (v) The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities, (c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1), Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.

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

(X) Corporate Environment Responsibility (CER)

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

(XI) Miscellaneous

- (i) The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC.
- (ii) The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- (iii) The project proponent shall establish a solar power plant with 30KVA capacity within the lease area as proposed.

- (iv) The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MoEF&CC & its concerned Regional Office, SEIAA, Odisha, Central Pollution Control Board and State Pollution Control Board.
- (v) A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC.
- (vi) The proponent shall comply all the specific conditions as recommended by CSIR-NEERI on carrying capacity study (as applicable) in time bound manner as proposed.
- (vii) The mining lease holders shall, after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to their mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.
- (viii) The project proponent shall augment infrastructure on drinking water, health care and education in nearby villages as per time bound action plan submitted.
- (ix) The project proponent shall obtain permission from DGMS under 106(2b) to carry out blasting operation within the lease area.
- (x) The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.
- (xi) 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.

- (1) The SEAC in its meeting dated 20-08-2022 recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions.
- (2) Proposal was placed in the 96th meeting of SEIAA for consideration of EC. The Authority deliberated on the matter and it was decided that, the PP may apply afresh after submission of compliance raised in the ADS by SEIAA.
- (3) The following documents, asked by SEIAA, have been submitted by PP. Hence, the SEAC recommended to return this proposal to SEIAA, Odisha as decision will be taken by the SEIAA.