

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL  
COMMITTEE, ODISHA HELD ON 13<sup>TH</sup> JULY, 2023**

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The SEAC met on 13<sup>th</sup> July, 2023 at 03:00 PM by Virtual mode (VC) through video conferencing in Google Meet under the Chairmanship of Sri Sashi Paul. The following members were present in the meeting.

- |                               |   |                       |
|-------------------------------|---|-----------------------|
| 1. Sri Sashi Paul             | - | Chairman (through VC) |
| 2. Dr. K. Murugesan           | - | Member Secretary      |
| 3. Dr. Rabi Narayan Patra     | - | Member (through VC)   |
| 4. Dr. Chittaranjan Panda     | - | Member (through VC)   |
| 5. Prof. (Dr.) H.B. Sahu      | - | Member (through VC)   |
| 6. Prof. (Dr.) Abanti Sahoo   | - | Member (through VC)   |
| 7. Er. Fakir Mohan Panigrahi- | - | Member (through VC)   |
| 8. Prof. (Dr.) B.K. Satpathy  | - | Member (through VC)   |
| 9. Dr. K.C.S Panigrahi        | - | Member (through VC)   |
| 10. Shri Jayant Kumar Das     | - | Member (through VC)   |
| 11. Dr. Ashok Kumar Sahu      | - | Member (through VC)   |

**CONSIDERATION OF OLD PROPOSALS (COMPLIANCE RECEIVED):**

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

**ITEM NO. 01**

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

1. The proposal is for Modification of Environmental Clearance of Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal & Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha w.r.t inclusion of minor mineral Dolomite (2.4 MTPA) for sale, installation of 600 TPH capacity crusher for Dolomite within ML area and permission for sale of limestone (up to 1.6 MTPA) in open market for M/s. Shiva Cement Limited of Sri Manoj Kumar Rustagi.
2. This is a proposal of Shiva Cement Limited for getting Amendment in existing Environment Clearance Letter No J-11015/47/2020-IA-II(M) dated 17.03.2022 granted by MoEF&CC in favor of Shiva Cement Limited for Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal & Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha w.r.t inclusion of minor mineral Dolomite (2.4 MTPA) for sale, installation of 600 TPH capacity crusher for Dolomite within ML area and permission for sale of limestone (up to 1.6 MTPA) in open market .

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Environmental Scientist, SEAC

3. **Location and Connectivity** - The mine is situated near Villages- Khatkurbahal & Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha. The latitude is 22° 16'45.31025" N to 22° 17'10.12835" N and 84° 27'36.13496" E to 84° 29'18.22107" E. The project falls under Category "B" Project or Activity 1(a) – 4 for "Mining of Minerals" as per MoEF&CC, Govt. of India Notification as the Mining Lease Area is less than 250 ha.
4. M/s. Shiva Cement Limited has an existing Cement Plant with clinker production capacity 3.0 million TPA & Cement 2.0 million TPA at Village Telighana. Tehsil- Kutra, District Sundargarh, Odisha. Environment clearance has been obtained from MoEFCC vide File No J-11011/84/2008-IA.II (I) dated 23.03.2022. To meet the limestone requirement of cement plant, company has two mines:
- Khatkurbahal Limestone & Dolomite Mine (ML Area- 72.439 ha) with Production Capacity 1.5 million TPA Near village – Khatkurbahal & Kulenbahal, Tehsil – Kutra, District –Sundergarh (Odisha). Environment Clearance for the same has been obtained from SEIAA, Odisha vide letter No 37895/62-MINB1/11-2021 dated 11.03.2022.
  - Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal & Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha. Environment clearance has been obtained from MoEFCC vide File No J-11015/47/2020-IA.II (I) dated 17.03.2022.
5. Project Proposal is for Amendment in Existing Environment Clearance vide Letter No J- 11015/47/2020-IA-II(M) dated 17.03.2022 granted by MoEFCC in favor of Shiva Cement Limited for Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal & Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha w.r.t inclusion of minor mineral Dolomite (2.4 MTPA) for sale, installation of 600 TPH Crusher for Dolomite and also permission for sale of limestone (upto 1.6 MTPA) in open market . Letter of Intent (LOI) as per Rule 10(2) of the Mineral (Auction) Rules, 2015 for grant of Mining Lease for Limestone was issued by the Government of Odisha in favor of M/s. Shiva Cement Limited for Khatkurbahal (North) Block Mine (ML Area 156.43 ha) vide letter no. 9010/S&M, Bhubaneswar dated 18.11.2019 and a corrigendum in LOI w.r.t area correction was issued on 14.02.2020. It may be noted that this auctioned mine is a merchant block with no end use condition. Environment Clearance has been granted by MoEF&CC vide letter No. J-1105/47/2020. IA. II (M) dated 17.03.2022 for Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) for total excavation of 5.543 million TPA [Limestone 1.6 MTPA and Mineral Reject 0.035 MTPA (ROM 1.635 million TPA), Top soil 0.033 million TPA and waste 3.875 million TPA (covering 2.42 million TPA of Dolomite as waste)]. Now, Shiva Cement Limited has a proposal to utilize Dolomite as a minor mineral for which Revised LOI has been issued with inclusion of Dolomite by the Department of Steel & Mines, Government of Odisha vide letter no 1216/S&M, (AE) (Exp.) SM-05/2021, Bhubaneswar dated 02.02.2021. With the utilization of Dolomite as a minor mineral for sale, there will be no change in proposed total excavation (i.e. 5.543 million TPA) as permitted in the existing Environment Clearance of the above mine. Approval of Modification in Mining Plan w.r.t inclusion of Dolomite has also been issued by the Ministry of Mines (IBM) vide letter no MPM/A/01/-OR/BHU/2021-22 dated 24.04.2021.
6. **Reason For Amendment:** Both Limestone and dolomite resources are considered for the valuation of resource in the Tender document of Khatkurbahal (N) block and both the minerals were taken into account for the calculation of upfront payments and performance security. Limestone

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resource is 49 Million MT whereas Dolomite resource is 76 Million MT which is ~ 1.5 times of limestone resource. However, without excavation of dolomite, limestone cannot be extracted as limestone is overlain by dolomite. The Avg sale price per ton of Limestone as on feb'2022 is INR 421.00 whereas the Avg sale price per ton of Dolomite as on Mar'2021 is INR 795.00. Considering the depth of limestone availability and its exploitation, the economic viability of the project is wholly dependent on the sale of dolomite. Dolomite mineral was inadvertently not mentioned in the initial Lol issued to Shiva Cement Ltd. Secondly, the District Survey Report (DSR) of Dolomite which is a pre-requisite for filing application for EC of minor minerals was also not available with the state govt. at the time of issue of Lol. Since the execution of our captive cement plant was already in progress, SCL had to apply for EC for Limestone only while considering the entire quantity of Dolomite, i.e. 2.4 Million TPA as waste as suggested by the non-coal mining EAC, MoEF&CC. The environmental impact assessment of mining and stacking of 2.4 Million TPA dolomite (considered as waste) has already been carried out during the EIA studies. Now, District Survey Report (DSR) of Dolomite has been issued by the District Collector on 28-02-2022, SCL has applied for amendment in the existing environment clearance (EC) w.r.t inclusion of minor mineral Dolomite, 2.4 million TPA for sale in open market without increasing the total excavation, i.e., 5.543 million TPA in order to utilize Dolomite (minor mineral) as a mineral which was earlier categorized as waste. 600 TPH crusher is also proposed for crushing of Dolomite within ML area. In addition, since this is a merchant mine with no end use restrictions. Company is also seeking amendment in the existing EC for grant of permission for sale of limestone (up to 1.6 MTPA) in open market.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i)	Copy of modified approved mining plan incorporating dolomite as a product and addition of 650 TPH Crusher.	Approval of modification of Mining Plan w.r.t inclusion of dolomite as a product and addition of 600 TPH Crusher granted by the Ministry of Mines (IBM) vide letter no MPM/A/01/-OR/BHU/2021-22 Dated 24.04.2021 is enclosed as <b>Annexure-I</b> .
ii)	Approval of the Steel and Mines Deptt., Govt. of Odisha for selling of dolomite as an Ore.	Revised LOI with inclusion of Dolomite from the Department of Steel & Mines, Government of Odisha, vide letter no 1216/S&M, (AE) (Exp.) SM-05/2021, Bhubaneswar dated 02.02.2021 is enclosed as <b>Annexure II</b> .  It is pertinent to mention that this auction block is not reserved for any specific end use and as such, the successful bidder is free to use the mineral for captive use as

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		well as sale to other end users. A copy of the document (Kindly refer S.No.3 of the "Response to Queries on Tender Document" by Directorate of Mines, Govt. of Odisha, dt. 05-09-2019) specifying the end use of the minerals (Limestone as well as Dolomite) is enclosed as <b>Annexure-III</b> .
iii)	Copy of EIA report prepared for grant of EC for 1.6 MTPA limestone and 2.4 MTPA dolomite as waste.	Copy of the EIA report prepared and submitted to the MoEF&CC for grant of EC for 1.6 MTPA limestone and 2.4 MTPA dolomite as waste is enclosed as <b>Annexure IV</b> .
iv)	Detailed writeup as to why this will not be treated as a fresh case for grant of EC including conducting public hearing.	<p>As per EIA Notification dated 14.09.2006, prior Environment Clearance is required for the following projects:</p> <ol style="list-style-type: none"> <li>1. All new projects or activities listed in the schedule of the Notification.</li> <li>2. Expansion and Modernization of existing projects or activities listed in the schedule to this notification with addition of capacity beyond the limits specified for the concerned sector that is projects or activities which cross the threshold limit given in the schedule after expansion or modernization.</li> <li>3. Any change in product-mix in an existing manufacturing unit included in the schedule beyond the specified range.</li> </ol> <p>In light of the above, the justification for not treating this proposal as a fresh case for grant of EC including conducting public hearing is given below:</p> <ol style="list-style-type: none"> <li>1. Said proposal is neither a new project nor an expansion/modernization and change in product mix.</li> <li>2. Said proposal is for amendment in the existing Environment Clearance (Letter No J- 11015/47/2020-IA-II(M) dated 17.03.2022 granted by MoEF&amp;CC) with</li> </ol>

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent																					
		<p>inclusion of Dolomite as a product. Dolomite has already been covered in the original EC as waste.</p> <p>3. There is no change in mining lease area (156.43 ha).</p> <p>4. There is no change in Total excavation (5.543 million TPA).</p> <p>5. There is no change in Mining Technology (Opencast Mechanized).</p> <p>6. Comparison of the details of the previous EC vis-a-vis the amendments proposed are given below:</p> <table border="1" data-bbox="837 772 1378 1865"> <thead> <tr> <th data-bbox="837 772 1018 936">Particulars</th> <th data-bbox="1018 772 1198 936">Details as per existing EC</th> <th data-bbox="1198 772 1378 936">Details as per present proposal</th> </tr> </thead> <tbody> <tr> <td data-bbox="837 936 1018 1077">Mining Lease area (Ha)</td> <td data-bbox="1018 936 1198 1077">156.43</td> <td data-bbox="1198 936 1378 1077">156.43</td> </tr> <tr> <td data-bbox="837 1077 1018 1178">Mining Technology</td> <td data-bbox="1018 1077 1198 1178">Opencast Mechanized</td> <td data-bbox="1198 1077 1378 1178">Opencast Mechanized</td> </tr> <tr> <td data-bbox="837 1178 1018 1319">Limestone (Million TPA)</td> <td data-bbox="1018 1178 1198 1319">1.6</td> <td data-bbox="1198 1178 1378 1319">1.6</td> </tr> <tr> <td data-bbox="837 1319 1018 1491">Mineral Reject (Million TPA)</td> <td data-bbox="1018 1319 1198 1491">0.035</td> <td data-bbox="1198 1319 1378 1491">0.035</td> </tr> <tr> <td data-bbox="837 1491 1018 1632">Top Soil (Million TPA)</td> <td data-bbox="1018 1491 1198 1632">0.033</td> <td data-bbox="1198 1491 1378 1632">0.033</td> </tr> <tr> <td data-bbox="837 1632 1018 1865">Waste (Million TPA)</td> <td data-bbox="1018 1632 1198 1865">3.875 (Including 2.42 million Tonnes of Dolomite)</td> <td data-bbox="1198 1632 1378 1865">Waste: 1.455 Dolomite: 2.42</td> </tr> </tbody> </table>	Particulars	Details as per existing EC	Details as per present proposal	Mining Lease area (Ha)	156.43	156.43	Mining Technology	Opencast Mechanized	Opencast Mechanized	Limestone (Million TPA)	1.6	1.6	Mineral Reject (Million TPA)	0.035	0.035	Top Soil (Million TPA)	0.033	0.033	Waste (Million TPA)	3.875 (Including 2.42 million Tonnes of Dolomite)	Waste: 1.455 Dolomite: 2.42
Particulars	Details as per existing EC	Details as per present proposal																					
Mining Lease area (Ha)	156.43	156.43																					
Mining Technology	Opencast Mechanized	Opencast Mechanized																					
Limestone (Million TPA)	1.6	1.6																					
Mineral Reject (Million TPA)	0.035	0.035																					
Top Soil (Million TPA)	0.033	0.033																					
Waste (Million TPA)	3.875 (Including 2.42 million Tonnes of Dolomite)	Waste: 1.455 Dolomite: 2.42																					

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent		
		Total Excavation (Million TPA)	5.543	5.543
		Proposed Limestone Crusher & Screen (TPH)	800	800
		Proposed Dolomite Crusher (TPH)	---	600
		<p>7. Public hearing has already been conducted for the total excavation of 5.543 million TPA (Limestone production capacity 1.6 million TPA, Mineral Reject 0.035 million TPA, Top Soil 0.033 million TPA and Waste 3.875 million TPA) on 24.08.2021.</p> <p>8. The environmental impact assessment of mining and stacking of 2.4 million TPA dolomite (considered as waste) has already been carried out during the EIA studies of the existing EC.</p> <p>Detailed write-up as to why this will not be treated as a fresh case for grant of EC including conducting public hearing is enclosed as <b>Annexure V</b>.</p>		
v)	Kisam of the Land.	Kisam of the land is enclosed as <b>Annexure VI</b> .		
vi)	Open market Sale or Sales/ marketing of the product is beyond the scope of SEAC for EC and hence, be deleted from the application for EC.	Earlier name of Proposal was mentioned as "Amendment in Existing Environment Clearance Letter No J-11015/47/2020-IA-II(M) dated 17.03.2022 granted by MoEF&CC in favor of Shiva Cement Limited for Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at		

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		<p>Villages Khatkurbahal &amp; Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha w.r.t inclusion of minor mineral Dolomite (2.4 MTPA) and permission for sale of limestone (up to 1.6 MTPA) in open market along with captive utilization in cement plant” which has now been revised and may be read as –</p> <p>“Amendment in Existing Environment Clearance Letter No J-11015/47/2020-IA-II(M) dated 17.03.2022 granted by MoEF&amp;CC in favor of Shiva Cement Limited for Khatkurbahal (North) Block Limestone Mine (M.L. Area- 156.43 ha) with limestone production capacity of 1.6 million TPA at Villages Khatkurbahal &amp; Phalsakhani, Tehsil Kutra, District Sundergarh, Odisha w.r.t inclusion of minor mineral Dolomite (2.4 MTPA) and permission for transportation of limestone (up to 1.6 MTPA) by road from mining lease to other 3rd party buyers.</p>

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

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

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- v) As per EIA report in project description, Bench width, height and angle is indicated along with Quarry slope and the proponent shall follow it as per approved mining plan and so also blasting procedure.
- vi) With regard to the public road and safety of commuters, the proponent must follow all the precautionary measures prescribed by DGMS including maintenance of a safety zone.
- vii) The approved mine plan for carrying out the proposed limestone mining should be revised to include mining of proposed dolomite ores as per the proposal.
10. The proposal was placed in the meeting of SEIAA held on 19.01.2023 for consideration of amendment in EC. The Authority deliberated on the matter and decided to referred back to SEAC for reconsideration of the proposal with the following observation:
- The extant proposal involves change of product mix by including dolomite as an "Ore" in place of "Waste".
  - The proposal also involves setting up of 600TPH crusher with consequent increase in pollution load.
  - As per MoEF&CC, GoI OM F.No.IA.3-22/10/2022-IA.III (E 177258) dated 11.04.2022 capacity addition with change in product mix or increase in pollution load require revised EIA/EMP report. The SEAC may give their considered view whether there is requirement of fresh Public Consultation in light of MoEF& CC, OM dated 11.04.2022.
11. The DSR of dolomite mining in Sundargarh District has not been approved by SEIAA& SEAC as per Order dated 10.11.2021 of Hon'ble Supreme Court in CA No-3661-3662 of 2020 in the matter of the State of Bihar & Others Vrs Pawan Kumar & Others.
12. In regards to the Transportation of mineral by road, the EAC of Ministry in its 42nd meeting has warned the consultant for non-compliance of ToR & recommended the EC in its 46th meeting after submission of an Undertaking by PP dated 28.01.2022 that the "Environmental Clearance, if granted, will be functional only after installing the Over Land Belt Conveyor (OLBC) for Captive Consumption of Limestone."
13. In view of this Suo-moto declaration, the Authority decided that the SEAC may re-examined the proposal in the light of MoEF & CC, Govt. of India OM dated 07.07.2021 for any violation. The proposal has referred back to SEAC through online for necessary action.
14. The SEAC in its meeting held on dated **14-02-2023** decided to take decision on the proposal after receipt of the following clarification from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	The extant proposal involves change of product mix by including dolomite as an "Ore" in place of	I. The said proposal does not involve change of product mix by including dolomite. There is no change in Total excavation /Production capacity from the mine. Only change is in the usage of dolomite as a mineral which was earlier considered as waste as per earlier EC. II. Both Limestone and dolomite resources are considered for the	The compliance furnished by the project proponent

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	"Waste".	<p>valuation of resource in the Tender document of Khatkurbahal (N) block and both the minerals, i.e. Limestone &amp; Dolomite were taken into account for the calculation of upfront payments and performance security paid by Shiva Cement Ltd. However, due to oversight of Deptt. of Steel &amp; Mines, Dolomite mineral was not mentioned in the initial Lol issued to Shiva Cement Ltd. The Deptt of Steel &amp; Mines later accepted the omission and issued a revised Lol for Dolomite. Secondly, the District Survey Report (DSR) of Dolomite which is a pre-requisite for filing application for EC of minor minerals. was also not available with the state govt. at the time of issue of Lol.</p> <p>III. Environment Clearance for the total excavation 5.543 million TPA has been obtained from MoEF&amp;CC vide letter No J-11015/47/2020-IA-II(M) dated 17.03.2022 considering dolomite as a waste due to non-availability of LOI and DSR for Dolomite. Therefore, the said proposal is for amendment in the existing Environment Clearance (Letter No J-11015/47/2020-IA-II(M) dated 17.03.2022 granted by MoEF&amp;CC) for use of dolomite as a mineral in place of waste.</p>	<p>under point (I.) is not correct. The proposal is for considering dolomite as a product. In the existing EC permission dolomite is waste and limestone is the only product. Hence the current proposal changes the product mix to two products i.e. dolomite and lime stone.</p>														
2.	The proposal also involves setting up of 600TPH crusher with consequent increase in pollution load.	<p>The proposal involves setting up of 600 TPH crusher. Details of dust emission to be generated from the proposed crusher is given below:</p> <table border="1"> <thead> <tr> <th>Stack attached to</th> <th>Stack No.</th> <th>Height from ground level (m)</th> <th>Internal Dia meter (Top) (m)</th> <th>Emission Rate (g/sec) PM10</th> <th>Exit Velocity (m/sec)</th> <th>Temp (°C) Exhaust Gas</th> </tr> </thead> <tbody> <tr> <td>Proposed Crusher</td> <td>1</td> <td>30</td> <td>1</td> <td>0.70</td> <td>10</td> <td>55</td> </tr> </tbody> </table> <p>The incremental values of PM 10 to be increased after installation of crusher of 600 TPH will be only 0.70 µg/m<sup>3</sup>. Which is a marginal increase.</p>	Stack attached to	Stack No.	Height from ground level (m)	Internal Dia meter (Top) (m)	Emission Rate (g/sec) PM10	Exit Velocity (m/sec)	Temp (°C) Exhaust Gas	Proposed Crusher	1	30	1	0.70	10	55	-
Stack attached to	Stack No.	Height from ground level (m)	Internal Dia meter (Top) (m)	Emission Rate (g/sec) PM10	Exit Velocity (m/sec)	Temp (°C) Exhaust Gas											
Proposed Crusher	1	30	1	0.70	10	55											
3.	As per MoEF&CC, Gol OM F.No.IA.3-22/10/2022-IA.III (E 177258) dated 11.04.2022 capacity addition with change in product mix or increase in pollution load require revised	<p>The justification for not treating this proposal for revised EIA/EMP Report including conduct of fresh public hearing is given below:</p> <p>I. There is no change in mining lease area (156.43 ha)</p> <p>II. There is no change in Mining Technology (Opencast Mechanized)</p> <p>III. There is no change in Total excavation/Production capacity from the mine. Only change is in usage of dolomite as mineral which was considered earlier as waste as per earlier EC.</p> <p>IV. There is no increase in pollution load except for crusher as mentioned in Point No. ii above.</p> <p>V. Public hearing has already been conducted for the total excavation of 5.543 million TPA (Limestone production capacity 1.6 million TPA, Mineral Reject 0.035 million TPA, Top Soil 0.033 million TPA</p>	-														

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Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC																														
	EIA/EMP report, whether there is requirement of fresh Public Consultation in light of MoEF&CC, OM dated 11.04.2022.	<p>and Waste 3.875 million TPA) on 24.08.2021.</p> <p>VI. Environment Clearance for the total excavation 5.543 million TPA has been obtained from MoEFCC vide letter No J-11015/47/2020-IA-II(M) dated 17.03.2022 considering dolomite as a waste due to non-availability of LOI and DSR for Dolomite.</p> <p>VII. The said proposal is for amendment in the existing Environment Clearance (Letter No J- 11015/47/2020-IA-II(M) dated 17.03.2022 granted by MoEF&amp;CC) for use of dolomite as a mineral in place of waste. Dolomite has already been covered in the original EC as waste (2.42 MTPA).</p> <p>VIII. Comparison of the details of the previous EC vis-a-vis the amendments proposed are given below:</p> <table border="1"> <thead> <tr> <th>Particulars</th> <th>Details as per existing EC</th> <th>Details as per present proposal</th> </tr> </thead> <tbody> <tr> <td>Mining Lease area (Ha)</td> <td>156.43</td> <td>156.43</td> </tr> <tr> <td>Mining Technology</td> <td>Opencast Mechanized</td> <td>Opencast Mechanized</td> </tr> <tr> <td>Limestone (Million TPA)</td> <td>1.6</td> <td>1.6</td> </tr> <tr> <td>Mineral Reject (Million TPA)</td> <td>0.035</td> <td>0.035</td> </tr> <tr> <td>Top Soil (Million TPA)</td> <td>0.033</td> <td>0.033</td> </tr> <tr> <td>Waste (Million TPA)</td> <td>3.875 (Including 2.42 million Tonnes of Dolomite)</td> <td>Waste: 1.455 Dolomite: 2.42</td> </tr> <tr> <td>Total Excavation (Million TPA)</td> <td>5.543</td> <td>5.543</td> </tr> <tr> <td>Proposed Limestone Crusher &amp; Screen (TPH)</td> <td>800</td> <td>800</td> </tr> <tr> <td>Proposed Dolomite Crusher(TPH)</td> <td>-</td> <td>600</td> </tr> </tbody> </table> <p>IX. The environmental impact assessment of mining and stacking of 2.42 million TPA dolomite (considered as waste) has already been carried out during the EIA studies of the existing EC.</p>	Particulars	Details as per existing EC	Details as per present proposal	Mining Lease area (Ha)	156.43	156.43	Mining Technology	Opencast Mechanized	Opencast Mechanized	Limestone (Million TPA)	1.6	1.6	Mineral Reject (Million TPA)	0.035	0.035	Top Soil (Million TPA)	0.033	0.033	Waste (Million TPA)	3.875 (Including 2.42 million Tonnes of Dolomite)	Waste: 1.455 Dolomite: 2.42	Total Excavation (Million TPA)	5.543	5.543	Proposed Limestone Crusher & Screen (TPH)	800	800	Proposed Dolomite Crusher(TPH)	-	600	
Particulars	Details as per existing EC	Details as per present proposal																															
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Proposed Dolomite Crusher(TPH)	-	600																															
4.	The DSR of dolomite mining in Sundargarh District has not been approved by SEIAA & SEAC.	We are following up with District Collector for forwarding the DSR to SEIAA for approval.	-																														
5.	In regards to the Transportation of mineral by road, the EAC of	I. As per our undertaking submitted to MoEF&CC, we are in the process of land acquisition for OLBC and are committed to transport limestone for captive use in our cement plant through OLBC only. The status of progress of land acquisition for OLBC	-																														

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Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	<p>Ministry in its 42<sup>nd</sup> meeting has warned the consultant for non-compliance of ToR &amp; recommended the EC in its 46<sup>th</sup> meeting after submission of an Undertaking by PP dated 28.01.2022 that the “Environmental Clearance, if granted, will be functional only after installing the Over Land Belt Conveyor (OLBC) for Captive Consumption of Limestone.”</p>	<p>is given in <b>Annexure-1</b>.</p> <p>II. However, Shiva cement also intends to sell the limestone to 3<sup>rd</sup> party end users in addition to utilizing the same for captive purpose in cement plant and as such permission for road transport is being sought for sale of limestone and Dolomite to 3<sup>rd</sup> party end users only since this is an auction block which is not reserved for any specific end use and as such, the successful bidder is free to use the mineral for captive use as well as sale to other end users. A copy of the document (Kindly refer S.No.3 of the “Response to Queries on Tender Document” by Directorate of Mines, Govt. of Odisha, dt. 05-09-2019) specifying the end use of the minerals (Limestone as well as Dolomite) is enclosed as <b>Annexure-2</b>.</p> <p>III. We therefore request for grant of permission of road transport for limestone and dolomite for trading purpose only.</p>	

After detailed discussion, the SEAC recommended the followings;

- a) Decision on the proposal shall be taken after the DSR of dolomite mining in Sundargarh District has been approved by SEIAA & SEAC.
- b) An undertaking shall be submitted that they shall abide by the undertaking submitted to MoEF & CC, Govt of India dtd. 28.01.2022 that “Environmental Clearance, if granted, will be functional only after installing the Over Land Belt Conveyor (OLBC) for Captive Consumption of Limestone”.
- c) Project proponent needs to clarify that the crusher is for dry grinding of the ore and the reported emissions are for conditions of dry grinding.
- d) There is a change in Product Mix from earlier EC for which the PP is adding 600 tph Crusher to process the Dolomite. Therefore, this may be considered as a fresh EC and PP may be advised accordingly.
- e) Also the PP should not apply for EC with permission to sell, rather the EC to be applied for fresh equipment installation with change in product mix and all related issues to be complied.
- f) All other points asked are also to be complied while applying.

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## ITEM NO. 02

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

1. This proposal is for environmental clearance for proposed expansion of residential complex “Mani Tribhuvan” (Formerly Known as “Mani Tirumala”) over built-up area of 76050.80 sqm at Mouza: Kalarahanga, P.S: Chandrasekharapur, Nandan Kanan Road, Dist. Khurda of Sri Prithiwiraj Mukherjee.
2. **Category:** The project requires prior Environmental Clearance under the provisions of EIA Notification, 2006 and subsequent amendment and falls under Category B of activity 8(a)- Building & Construction projects.
3. **Project details:** Mani Tirumala Projects Pvt. Ltd., the project proponent has completed the construction of the residential complex “MANI TRIBHUBAN” (Formerly known as “MANI TIRUMALA”) at Plot Nos. 13,15,21 to 31, 33, 36, 37,38,28/2573, 40 to 49, 58, 59 & 125 (Part), Mouza- Kalarahanga, P.S.- Infocity, Nandan Kannan Road, District- Khurda, Odisha. The Project Proponent under the Existing part of the project has constructed 11 Blocks of buildings of G+14 configuration comprising of 603 dwelling units. 22 additional flats have been constructed in the existing 11 Towers. Out of these 22 flats, 16 (sixteen) flats have been built by rearranging the ground floor and 6(six) flats are constructed as upper floors in the 11 existing towers. The current configurations of dwelling units stand at 625 nos.
4. Additionally, as a part of earlier proposal, minor civil constructions of few blocks of G+5 & G+6 configurations have been carried out up to different stages. The proposal had been later dropped and the proponent has decided that these structures will be all demolished. This matter has been already recorded and documented in Page 53 of 68 of the Proceedings of the SEAC meeting held on 19.03.2021.
5. Terms of Reference (TOR) has been granted by SEIAA, Odisha vide letter no. 3345/SEIAA, dated 12.10.2021 under Violation Category.
6. Existing Environment Clearance was granted by SEIAA vide letter no. SEIAA/200/ENV dated 02.04.2011.
7. BDA has approved the building plan vide letter no. 3537/BDA/Bhubaneswar, dated 13.02.2017.
8. **Location and Connectivity:** The proposed site is located at Kalarahanga, Bhubaneswar, Odisha. The geographical co-ordinate of the project site is Latitude - 20°22'9.08"N & Longitude - 85°50'3.35"E. The project site is well connected with Nandan Kanan road which take towards National Highway-16 (Kolkata-Chennai Road). Nandan Kanan road is 0.1 Km from proposed site. The nearest railway station is Mancheswar Railway station at a distance of approx 5.0 Km in South direction. The nearest airport is Biju Patnaik Airport at a distance of approx. 13.0 Km in South direction from project site. The site is easily accessible from Nandan Kanan Road.
9. **Comparative Land details:** The total plot area of the existing & proposed project will be 41,075.20 sqm and built up area of existing project is 76,050.80 sqm & built up area of

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proposed project (22 Flats) is 1906.66 sqm, so total built up area of the existing & proposed project is 77957,46 sqm.

**Table: Comparative statement**

<b>Sl. No.</b>	<b>Features</b>	<b>Phase-1 As Per Environmental Clearance Vide Ref. No. SEIAA/200/Env Dated 02.04.2011</b>	<b>Additional Construction 22 Flats In 11 Towers</b>	<b>Current Scenario</b>
i)	Land Area	41075.20 SQM	0.00 SQM	41075.20 SQM
ii)	Configuration	11 blocks of G+14 storied comprising of 603 flats with a Club house	22 Flats have been added in the existing 11 blocks. Out of these 22 Flats, 16 No. Flats have been built by rearranging the ground floors and 6 No. Flats are constructed as upper floor(s) in the 11 existing towers	11 Blocks of G+14 storied comprising of 625 Flats with a Club House
iii)	No. of flats	603 Nos	22 Nos	625 Nos
iv)	Built-up area	76050.80 SQM	1906.66 SQM	77957.46 SQM
v)	Population	3317 persons permanent residents, 302 persons for Club	110 persons	3427 persons permanent resident 302 persons for Club
vi)	Total water requirement	566.7 KLD	16.40 KLD	583.1 KLD
vii)	Wastewater generation	428.2 KLD	13.30 KLD	441.5 KLD
viii)	Treated wastewater from STP	415.3 KLD	12.97 KLD	428.27 KLD
ix)	Treated wastewater recycled	259.8 KLD	6.11 KLD	265.91 KLD
x)	Treated wastewater discharged	168.9 KLD	6.86 KLD	175.76 KLD
xi)	STP capacity	450 KLD (350KLD +100KLD)	Wastewater will be treated in the existing STPs	450 KLD (350KLD +100KLD)
xii)	Solid Waste generation	1.50 TPD	0.058 TPD	1.558 TPD

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Sl. No.	Features	Phase-1 As Per Environmental Clearance Vide Ref. No. SEIAA/200/Env Dated 02.04.2011	Additional Construction 22 Flats In 11 Towers	Current Scenario
xiii)	Total Power Requirement	3938.00 KW	130.00 KW	4068.00 KW
xiv)	DG sets	4 x 250 KVA, 2 X 380 KVA	Current configuration of DGs provided will suffice additional back-up power requirement	2 X 320 KVA 1 X 125 KVA(Not installed as there is no occupancy)
xv)	Rainwater Recharge pits	06 Nos	No Change	06 Nos
xvi)	No. of Car Parking	653 Nos	22 Nos	675 Nos
xvii)	Green Area	5596.00 SQM	0.00 SQM	5596.00 SQM

**10. Water requirement:** Total water demand for the proposed expansion part of the residential complex project during operation stage will be around 16.40 KLD. Daily freshwater requirement to the tune of 10.29 KLD will be sourced from Ground Water Supply System. Relevant permission from the respective authorities has already been obtained. In addition, treated wastewater to the tune of 6.11 KLD will be utilized in non-critical purposes like toilet flushing, landscaping, car washing, etc.

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

**11. Wastewater Treatment:** It is expected that the project generates approx. 428.2 m<sup>3</sup>/day of wastewater. Wastewater generated in additional 22 nos. of flats is 13.3 KLD which is treated in existing STP of capacity 330 KLD & 100 KLD. STPs is based on SBR (Sequential Batch Reactor) Technology have been set up for the existing configuration of the 11 Towers.

**12. Solid Waste Generation and Its Management:** From the residential complex, solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.4 kg/capita/day, which will be about 110 x 0.40 = 44.0 kg/day. The generated solid waste from

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the residential complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate-colored beans. Proper waste management practices will be adopted during the collection, storing and disposal of the generated solid waste. Waste generated from Floating people will be @ 0.15 kg/capita/day, which will be about 3.3 kg/day. Waste generated from Street Sweeping will be 11.0 kg/day.

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

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

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

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

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

17. Total Budgetary Allocation as per the table:

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

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

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

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

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**20. Environment Consultant:** The Environment consultant **M/s. Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar**, along with the proponent made a presentation on the proposal before the Committee on dtd. 14.02.2023.

21. The SEAC in its meeting held on dated 14-02-2023 recommended the followings;

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

- a) Undertaking by PP to carryout demolition of minor civil constructions of few blocks of G+5 & G+6 configurations as per ToR conditions, within a stipulated time frame and submit detail time scheduled for demolition.
- b) NOC/permission from concerned authority for discharge of additional quantity of treated water to nearest drain.
- c) Details of solar power generation along with calculation. Revised EMP budget incorporating cost of solar installation.
- d) Provide photographs of rainwater harvesting structures. Provide the location of rain water harvesting structures along with photographs.
- e) Certified compliance report to earlier EC conditions from MoEF & CC, Govt. of India.

**ii) The proposed site shall be visited by Sub-Committee of SEAC to verify the followings;**

- a) Construction activity, if any started for the project at the site.
- b) Progress of the demolition work as recommended in ToRs.
- c) Any other issues.

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

- a) Both PP and Consultant with other team members were present.
- b) During visit, it was observed that, demolition of the unauthorized construction is going on. PP informed that the work of demolition will be done by a month maximum. No fresh construction done in this area.
- c) Installation of solar PV panels were observed at the roof top
- d) Green belt, drain and road facilities are available.
- e) Other documents as asked during presentation to be submitted.

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

<b>Sl. No.</b>	<b>Information Sought by SEAC</b>	<b>Compliance furnished by the proponent</b>	<b>Views of SEAC</b>
1.	Undertaking by PP to carryout demolition of minor civil constructions of few blocks of G+5 & G+6 configurations as per ToR conditions, within a stipulated time frame and submit detail time scheduled for demolition.	The demolition work is already in progress.  During the site visit of sub-committee of SEAC, the demolition work was ongoing at its full swing. The demolition work shall be completed within 30 <sup>th</sup> May 2023.  The undertaking regarding the same along with demolition photographs is	Complied and Annexure -1 is attached.

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**Environmental Scientist, SEAC**



Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		annexed hereto as <b>Annexure -1.</b>	
2.	NOC/permission from concerned authority for discharge of additional quantity of treated water to nearest drain.	Drainage permission has been obtained from Bhubaneswar Development Authority vide letter no. 66/EM, dated 08.01.2015. During construction of additional 22 nos. of Flats minor waste water i.e 6.86 KLD is discharged to nearest drain. The drainage permission is attached in <b>Annexure-2.</b>	NOC not attached for discharge of additional quantity of treated water to nearest drain.
3.	Details of solar power generation along with calculation. Revised EMP budget incorporating cost of solar installation.	Please find attached a note on details of solar power generation of 106kw annexed hereto as <b>Annexure -3.</b>	Solar energy proposed is too less.
4.	Provide photographs of rainwater harvesting structures. Provide the location of rain water harvesting structures along with photographs.	Total 06 nos. of Rainwater Harvesting pits has been constructed at site. The rainwater harvesting structure is marked in Layout plan. Layout plan is annexed as <b>Annexure -4</b> and Rainwater Harvesting Photographs are annexed as <b>Annexure - 5.</b>	Annexure -4 and 5 is attached.
5.	Certified compliance report to earlier EC conditions from MoEF & CC, Govt. of India.	The Certified Compliance report of earlier EC has been obtained from IRO Bhubaneswar vide letter no. 109-34/2022-EPE, dated 04.11.2022. The certified compliance report is attached in <b>Annexure - 6.</b>	-

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

After detail discussion, the SEAC decided to take decision the proposal after receipt of the following from the proponent;

- a) NOC for discharge of additional quantity of treated water to nearest drain is not attached.
- b) The project proponent to indicate the system of storm water drainage, rainwater harvesting system and recharge well.
- c) Total cost of the project & total turnover cost.
- d) The OM F No. 22-21/2020/IA. III, dtd. 07.07.2021 of MoEF & CC, Govt. of India regarding SoP for violation cases stipulates that the percentage rates of penalty shall be halved if the project proponent suo-moto reports such violations without such violations coming to the knowledge of the Government either on inquiry or complaint. In this case, the violation has been identified at the time of appraisal of the proposal for grant of Environmental Clearance. Further, the OM on dtd. 07.07.2021 is applicable for the violation cases which has not been disposed off

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after date of notification of the OM i.e., 07.07.2021. Hence, the claim of the proponent that they have applied for grant of EC under the Violation Window on 12th Sept 2017, hence the project doesn't fall under the Penalty Provisions as per Notification F.No. 22-21/2020-IA.III, dated 07.07.2021 is not acceptable. The proponent has to deposit the penalty as per percentage given in the OM dtd. 07.07.2021 and detailed calculation to this effect shall be submitted.

### **ITEM NO. 03**

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

1. This is a proposal for Environment Clearance of for Basinggorja Decorative Stone Mines over an area of 2.428 Hectares in village - Basinggorja under Tahasil - Gunupur of District - Rayagada, Odisha of Sri G. R. Samyukta.
2. The project falls under category "B" or activity 1 (a) – Mining of Minerals projects under EIA Notification dated 14th September 2006 as amended from time to time.
3. Basinggorja Decorative Stone Mine over an area of 2.428Ha of M/s. Stone Fileds, Prop-Smt. G.R.Samyukta is located in village Bassinggorja under Gunupur Tahsil of Rayagada District Odisha. The lease was granted to M/s. Stone Fields being the successful bidder for tenure of 20 (Twenty) years from the date on which this executed deed is registered.
4. The Mining Plan has been approved by the Joint Director of Mines, Directorate of Mines, Bhubaneswar, Odisha. under section 2 of Rule 28 (4) of OMMC, 2016 as per clause 5.
5. Mining plan prepared by Sri H.C. Sahoo, vide his IBM's Regn. No. RQP/BBS/033/2001/A was approved on 24.10.2006 by the Directorate of Mines, Odisha, Bhubaneswar for the purpose of grant / execution of the mining lease and mining operation was commenced in FY 2006-07 by the submission of an opening notice to the concerned department of State Govt.
6. Subsequently, Scheme of Mining consisting of review of Mining Plan for 5 years from 2006-07 to 2010-11 and year wise development for next 5 years from 2011-12 to 2015-16 was prepared by the RQP, Sri S.C. Nayak, vide his IBM's Regn.No. RQP/CAL/211/95/A and submitted by the Lessee for approval. Scheme of Mining could not be processed for approval due to sad demise of the proprietor, Late G.N.V Naidu.
7. Since the period of submitted Scheme of Mining was valid up to 31.03.2016, the next Scheme of Mining of Basinggorja Decorative Stone Mine over an area of 2.428 hectares prepared by Sri S.C. Nayak vide his DM's registration number RQP/OD/029/2015 under Rule 18(2) of GCDR, 1999 for a period of 5 years from 2016-17 to 2020-21 was approved by the Directorate of Mines, Odisha, Bhubaneswar.
8. Since the approved Scheme of Mining is valid up to 31.03.2021, the present Scheme of Mining has been prepared by the same RQP, Sri S.C. Nayak vide his DM's Regn No.RQP/OD/029/2015, M/s MINESKETCH Consultants (P) Ltd, Flat No.205, Bhagwan Tower, Cuttack Road, Bhubaneswar-751006

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Environmental Scientist, SEAC

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
i)	Year wise production details of mine duly certified by mining officer.	Certificate regarding Production since 2006-07 till date form DDM, Koraput Circle is attached as <b>Annexure -1</b> .

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

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

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

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

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

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

24. The SEAC in its meeting held on dated 14-02-2023 decided to take decision on the proposal after receipt of the following clarification from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	In response to ADS raised by SEAC, the PP vide his letter dated 10.07.2022 at Point No.3 has mentioned that production has been done “beyond the limit in approved mining plan”. The proponent has to clarify this and justify why this will not be treated as a violation case.	The Project proponent has given duly authenticated by DDM, Koraput Circle Production details and had stated that the deviation happened in the production of decorative stone is due to availability of product at the bench where mining was carried out and stripping ratio of decorative stone to waste decreased and resulted in	-

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Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		more recovery of decorative stone. The same quantity also sold by paying the royalty to Government of Odisha. During Mining operation all the environmental measures has been taken as proposed in mining plan. As such there is no deviation of conditions on approved mining plan. It is also pertinent to inform you that as per estimation total 286426 Cum of decorative stone till reserve at quarry for further excavation which will benefit State Government in form of Royalty, DMF, taxes, Environmental cess etc.	

After detail discussion, the SEAC recommended that SEIAA may treat the case as violation case as the lessee has gone for excess production without environmental clearance and action may be taken in the light of MoEF & CC, Govt. of India OM dated 07.07.2021 for such violation.

#### **ITEM NO. 04**

#### **PROPOSAL OF ENVIRONMENTAL CLEARANCE FOR PROPOSED HOUSING PROJECT FOR ENVIRONMENT CLEARANCE FOR (S+11) STORIED RESIDENTIAL BUILDING PLAN OVER AN BUILT UP AREA 23402.47 SQRM LOCATED AT- SAMBALPUR TOWN UNIT NO.-15, AINTHAPALI, THANA: SAMBALPUR NO-12, TAHASIL: SAMBALPUR NO.- 239, DISTRICT: SAMBALPUR FOR M/S BALAJI BUILDERS AND DEVELOPERS OF SRI GIRIDHAR AGARWAL – EC**

1. This is a proposal of housing project for Environment Clearance for (S+11) storied residential building plan over an built up area 23402.47 sqrm located at- Sambalpur Town Unit no.-15, Ainthapali, Thana: Sambalpur No-12, Tahasil: Sambalpur No.- 239, District: Sambalpur. The project will be developed by M/s Balaji Builders & Developers.
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. The proposed site is located at Sambalpur Town Unit No.-15, Ainthapali and Thana: Sambalpur No-12, Tahasil: Sambalpur No- 239, District: Sambalpur, Odisha. The Geographical co-ordinate of the project site is Latitude -21°29'2.21"N & Longitude 83°59'22.90"E. The project site is well connected with National Highway – 53 at a distance of 0.5 Km. The nearest railway station is Sambalpur Junction at a distance of approx 3 Km in South West direction. The nearest airport is Jharsuguda Airport, Bhubaneswar at a distance of approx. 11 Km in North direction from project site.
4. **Area Details of the Project are given below:**

Particular	Proposed	Permissible
Project Name	Proposed (S+11) storeyed Residential building plan of <b>M/s Balaji builders &amp; developers.</b>	
Plot Area	2.303 Acre or 100318.00 Sq.Ft or 9323.23 Sqm	--

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Particular	Proposed	Permissible
Ground Coverage	33110.24 Sft (33%)	--
Total Built up Area	302563.40 Sqft or 28119.27 Sqm	--
Total FAR Area	23392.79 Sqm	--
FAR	2.51	--
Road & Paved Area	4657.65 Sqm	--
Revised Parking Area as per the ADS submitted	Total parking area provided for the Residential building is 6046.66 sqm and ECS provided for the residential building is 150 nos. of 4 Wheelers & 90 nos. of 2 Wheelers including bicycles. Total 605.0sqm (10.0%) area is provided for visitor parking.	62975.53 Sq.Ft
Revised Green Belt Area in ADS	1870.88sqm (20.06 % of Plot area)	20063.6 Sq.Ft (20 % of Plot area)
Revised Rain Water Harvesting Pits in ADS	11nos. for 196m <sup>3</sup> /hr.	
Power/Electricity Requirement & Sources	715 KW (WESCO, Sambalpur)	--
No. of DG sets	1 x 500 KVA	--
Revised Fresh Water requirement & Sources in ADS	90 KLD Source-Ground Water	--
Sewage Treatment & Disposal	STP Capacity 150 KLD	--
Revised Estimated Population- Residential, Floating/visitors IN ADS	790 nos.	--
Estimated Population- Commercial, Floating/visitors	Commercial Complex has been removed as per the ADS submitted.	--

5. **Power requirement:** The daily power requirement for the proposed Private Developer Project is preliminarily assessed as 715 KW source from WESCO Sambalpur Electricity Board. In order to meet emergency power requirements during the grid failure, there is provision of 1 nos. of DG set having 500 KVA capacities for power back up in the Private Housing Project. Total power generation from Solar system is 42.52 KW through 29 nos. of PV Panels & 36 nos. of Solar Street Lighting. Total power demand of the proposed building is 715.0 KW. So total solar power generation from the proposed building is 5.94% of total power demand.
6. **Water requirement:** During operation phase water will be sourced from Ground Water. Revised Fresh Water consumption for the Residential People for 790nos. = 90 m<sup>3</sup>/day, Flushing for Residential People 790nos. = 45 m<sup>3</sup>/day,

Population Detail:

Sl. No.	Type of Dwelling Unit	No. of Dwelling Unit	No. of person/Unit	Total Population

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1	4 BR	40	7	280
2	3 BR	60	6	360
3	2 BR	30	5	150
<b>Total (Residential)</b>		<b>130 Nos.</b>		<b>790 Nos.</b>

**Total Water requirement**

Sl. No.	Description	Total Population	Per Capita Consumption (ltr/day)		Water Requirement (KLD)		
					Domestic	Flushing	Total
1.	Residential	790 nos.	Fresh (90)	Flushing (45)	71.1	35.5	106.6
<b>Total</b>					<b>71.1~71</b>	<b>35.5~36</b>	<b>106.6~107</b>

**Wastewater Calculations**

Details	Water (KLD)
Water requirement for domestic purpose	71.0
Wastewater generated from domestic use (@ 80 % of domestic water requirement)	56.8
Water requirement for Flushing Purpose	36.0
Wastewater generated from Flushing (@ 100 % of flushing requirement)	36.0
<b>Total Wastewater generated</b>	<b>56.8+36 = 92.8 KLD</b>
Sewage Treatment Plant Capacity	<b>100</b>
STP Loss (5 % of wastewater generation)	<b>4.6</b>
<b>Recycled water form STP @ 95 % of wastewater generated</b>	<b>88.2</b>

7. **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).
8. **Green Belt Development: Revised** Total greenbelt area provided for the proposed building is 1870.88 sqm, which is 20.06% of the total plot area (9323.23sqm) by using the local species like Radhachuda, Nageswar, Akash Neem, Ashok, Polanga, Karang, Bela, Pijilu, Kaniara, Tagar, Hena, etc.
9. **Parking Details** – Revised Total parking area provided for the Residential building is 6046.66 sqm and ECS provided for the residential building is 150 nos. of 4 Wheelers & 90 nos. of 2 Wheelers including bicycles. Total 605.0sqm (10.0%) area is provided for visitor parking.
10. **Solid Waste Management:** From the residential complex solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.45 kg/person/day, which will be about 418.5 kg/day.

Sl. No.	Category	Counts (heads)	Waste generated
1.	Residents	930 @ 0.45 kg/day	418.5 kg/day

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2.	Floating population in residents	93 @ 0.15 kg/day	13.95 kg/day
3.	STP sludge		55.13 kg/day
<b>Total Solid Waste Generated</b>			<b>487.5 kg/day</b>

11. **The cost of the project is ` 45 Crores.**
12. The Environment consultant **M/s Centre for Envotech & Management Consultancy Pvt. Ltd., N-5/305, IRC Village, Bhubaneswar** along with the proponent has made a presentation on the proposal before the Committee on 11.02.2022.
13. The SEAC in its meeting held on dated 11.02.2022 decided to take decision on the proposal after receipt of the following information / documents from the proponent followed by site visit of the sub-committee of SEAC.
- i) Kism of the entire land on which the construction of the residential colony is proposed need to be necessarily "Gharabari" for which PP must submit the "Khatian" from the appropriate Revenue Authority and if Kism of land other than Gharabari needs to be converted without which construction work shall not start.
  - ii) Copy of approval letter from concerned authority for construction of building in 12 mtr wide govt. road.
  - iii) Google Layout map showing the distance of all sensitive places from project site.
  - iv) Possibility of exploration of river water/PHED rather depending on ground water.
  - v) Detail analysis of Ground water and river water to be submitted.
  - vi) Layout of internal drains / sewer along with ownership of the land / Row since the same need to be in favour of PP.
  - vii) Permission of the authority of the drain / sewer to take the addl. load of this proposed project including the scheduled operation of the sewer.
  - viii) Layout of drainage system and exact distance of project site to nearest drain and outfall of drain.
  - ix) Parking in terms of space and ECS for 4 wheelers, 2 wheelers including bicycles be calculated separately for dwellers & visitors (floating population) indicating the norm as well and showing it in the layout map & be submitted.
  - x) Details of DG sets to be installed at the suitable places after due consideration of pre-dominant wind direction to avoid air pollution from entering the dwelling house of the colony. DG set location w.r.t wind direction, stack height with layout / installation and drawing of the stack / exhaust pipe be submitted, considering cumulative capacity(s) of all DG sets and height of the tallest tower.
  - xi) Revised Green belt of plot area along with detail calculation with dimension continuous around the boundary showing in the layout map be submitted. Details of species to be mentioned.
  - xii) Fire clearance from the appropriate authority need to be obtained and their observations is to be submitted.
  - xiii) Plan of consumption of solar power with exact calculations to be submitted and increase the Solar power usage to 5% of total power load.

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**Environmental Scientist, SEAC**



- xiv) Calculation of number of proposed Rain water harvesting pits appears to be wrong and hence to be recalculated and re submitted. Maximum hourly rainfall be taken based on 30 years data (Climate logic data) and accordingly, no. of rain water harvesting pits be calculated / decided along with the design of the pit including retention time (hold) showing the norms for the same. Thus, this is to be re-submitted.
  - xv) Traffic study should be undertaken from reputed Institute and its findings in terms of LOS (Level of Service) as per IRC norm to be submitted and mitigation plan as and if necessary be submitted.
  - xvi) Provisional approved plan from concerned Development Authority be submitted, being a basic document for a housing Project.
  - xvii) Water requirement calculation to be revisited and re- calculated & re - submitted and accordingly, the water management as and if necessary.
14. The project proponent was requested vide letter no. 202 (6)/ SEAC–(Misc)-28, dated 18.02.2022 to submit the information / documents as sought by the SEAC at para 12 above. But, they have not yet furnished the same
15. The proposed site was visited by the sub-committee of SEAC on 21.03.2022. Following are the observations of the sub-committee and proponent needs to submit relevant documents as below:
- i) The project proponent has not obtained the proposed residential building plan approval from Sambalpur Development Authority yet and stated to have applied for the same in April'21.  
Since this is the basic document based on which other activities follow including consideration of EC, the Project proponent was advised to expedite the same. The project proponent was also advised to submit the acknowledgement copy of the application made for the purpose.
  - ii) The proposed site is having buildings is all its four sides and NH-53 is about 0.5 KM from the project site.  
There is a leading road of about 12mtr (as stated) width with a divider (dividing almost 6mtr each on both sides) for the project almost extreme end of the boundary till NH-53 and stated to have belonged to the project proponent and now surrendered to Sambalpur Municipality for the purpose of use by the dwellers of this proposed project & their one more existing housing complex, the document of which has been sought from the project proponent. Other than this road leading to NH-53, there is no provision of road in any of the sides of the project site.  
  
With this surrounding w.r.to provision of road the provision approval of Sambalpur Development Authority is essential before consideration for EC.
  - iii) Since river Mahanadi is about at distance of 4km & Horda Nala at a distance of 1km from the project site, it may not be feasible to meet the water requirement of the project on operation from these sources.  
However, they need to approach PHED / Municipality to meet the water requirement with a provision of underground sump in case it is regretted by the authority concerned, they be permitted to use ground water with necessary 'NOC' from CGWA & permission from W.R Deptt, Govt of Odisha.  
  
But if they are / provided with PHED / Municipality supply water, they can have one bore well to meet the emergency need, the capacity of which they need to confirm and submit

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**Environmental Scientist, SEAC**

the design of the underground sump showing in the layout map.

- iv) There is no sewer line provision in Sambalpur at present. As such, the excess treated waste water & surface runoff / storm water need to be discharged to the drain.

The project proponent has a small drain adjacent for the project site boundary in the eastern side of length about 100 mtr which is connected vertically to Municipality drain of about 100 mtr length that falls to the main drain of Sambalpur Municipality. Thus, the Nala of project proponent is vertical and perpendicularly confluences with the Municipality drain.

So, the project proponent need to submit the design / dimension of their drain outside the boundary on their land and permission for the drain Authority to ultimately discharge the treated waste water (excess) including the permission to leave the additional load.

The project proponent stated that it is done by Drainage Authority under deposit scheme and they need to submit the document of proof of payment under the scheme including the above stated permission.

- v) DG set is to be correctly located w.r to prevalent wind direction so that the emission do not enter the residential towers / dwelling units and accordingly, the architect / Env. Consultants were advised on the site.
- vi) All other relevant points viz: Green Belt. Parking , Rain water harvesting, Solar Power, Water balance during monsoon / Non - monsoon / winter & STP, Fire corridor/ Fire clearance etc were discharged & advised for compliance as per norms.
- vii) Since the stated 12 m wide road (6m x2 sides) length which vehicles from the residential project will ply and intersect at NH-53 (very busy road), the traffic study need to be undertaken by an institute of repute and submitted with decongestion plan as and if necessary is reference to IRC norm. This was advised to all present i.e project proponent/ Architect / Env. Consultant.
- viii) There are discrepancies / mismatch w.r.t built up area / FAR area at different places of the report, the same need to be corrected as necessary.
- ix) The project will have 03 residential towers having 130 dwelling units and will have no commercial complex (as stated & stated to have wrongly mentioned).
- x) The project proponent / Architect present were advised to have provision for separate gates for entry & exit with pedestrians' pathways and show the same with appropriate dimensions in the layout map & submitted.

16. The SEAC in its meeting held on dated 02-06-2022 decided to take decision on the proposal after receipt of the information / documents as sought by SEAC vide letter no -202 (6)/ SEAC-(Misc)-28, dated 18.02.2022 and as desired by Sub-Committee of SEAC at para 14 above.

17. The proponent has furnished the compliance to the information / documents as sought by SEAC vide letter no -202 (6)/ SEAC-(Misc)-28, dated 18.02.2022 and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Kisam of the entire land on which the construction of the residential colony is proposed need to be necessarily	Total land requirement of the proposed project is 9323.23 sqm, all the plot has been converted to Gharabari. Land	Annexure-1 is attached and complied.

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Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	“Gharabari” for which PP must submit the “Khatian” from the appropriate Revenue Authority and if Kissam of land other than Gharabari needs to be converted without which construction work shall not start.	document of the proposed project is attached in <b>Annexure-1</b> .	
2.	Copy of approval letter from concerned authority for construction of building in 12 mtr wide govt. road.	The building plan has been approved by Sambalpur Municipal Corporation vide letter no. 2719/SMC, dated 11.04.2023. Building plan approval letter from SMC is attached in <b>Annexure-2</b> and building approval drawing is attached in <b>Annexure-3</b> .	submitted
3.	Google Layout map showing the distance of all sensitive places from project site.	Google map showing all the sensitive places from project site is attached in <b>Annexure-4</b> .	Google map is attached.
4.	Possibility of exploration of river water/PHED rather depending on ground water.	Ground Water NoC has been obtained from CGWA vide NoC no. CGWA/NOC/INF/ORIG/2022/16319, dated 14.09.2022. Ground Water NoC is attached in <b>Annexure-5</b> .	NoC has been obtained from CGWA for 71KLD valid till 13.09.2027 is attached.
5.	Detail analysis of Ground water and river water to be submitted.	Analysis report of Ground Water is attached in <b>Annexure-6</b> .	Submitted
6.	Layout of internal drains / sewer along with ownership of the land / Row since the same need to be in favour of PP.	Layout Plan of Internal Drainage is attached in <b>Annexure-7</b> .	Submitted
7.	Permission of the authority of the drain / sewer to take the addl. load of this proposed project including the scheduled operation of the sewer.	Drainage Permission from Sambalpur Municipal Corporation has been obtained vide letter no. 9211/SBP/ ENGG./SMC, dated 26.09.2022. Drainage permission letter is attached in <b>Annexure-8</b> .	NOC from Sambalpur Municipal Corporation for disposal of storm water to existing drain.
8.	Layout of drainage system and exact distance of project site to nearest drain and outfall of drain.	Layout plan of drainage system is attached in Annexure-7 and the distance of nearest drain is 0.5 km from project site.	Drainage layout submitted.
9.	Parking in terms of space and ECS for 4 wheelers, 2 wheelers including bicycles be calculated separately for dwellers & visitors (floating population) indicating the norm as well and showing it in the layout map & be submitted.	Total parking area provided for the Residential building is 6046.66 sqm and ECS provided for the residential building is 150 nos. of 4 Wheelers & 90 nos. of 2 Wheelers including bicycles. Total 605.0 sqm (10.0%) area is provided for visitor parking. Parking Calculation & Layout showing 4 wheelers & 2 wheelers parking is attached in <b>Annexure-9</b> .	Revised Parking calculation has been submitted
10.	Details of DG sets to be installed at the suitable places after due consideration of pre-dominant wind direction to avoid air pollution from entering the dwelling house of the colony. DG set location w.r.t wind	The predominant wind direction of the proposed project area is South-West and the DG set will be installed as wind flow from South-West to North-East. The DG Set position is marked in the layout with respect to predominant wind direction	Annexure-10 is attached.

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Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	direction, stack height with layout / installation and drawing of the stack / exhaust pipe be submitted, considering cumulative capacity(s) of all DG sets and height of the tallest tower.	and location of the building tower along with installation drawing/ Layout is enclosed as <b>Annexure-10</b> .	
11.	Revised Green belt of plot area along with detail calculation with dimension continuous around the boundary showing in the layout map be submitted. Details of species to be mentioned.	Total greenbelt area provided for the proposed building is 1870.88 sqm, which is 20.06% of the total plot area (9323.23 sqm). We propose to develop three tier hierarchal greenbelt along the periphery of the building. Greenbelt drawing is attached in <b>Annexure-11</b> .	Revised Green belt is attached as Annexure-11.
12.	Fire clearance from the appropriate authority need to be obtained and their observations is to be submitted.	Fire recommendation has been obtained from Odisha Fire Service vide recommendation no. RECOMM1306200062022000471, dated 15.02.2022. Fire recommendation letter is attached in <b>Annexure-12</b> .	Fire recommendation is attached as Annexure-12
13.	Plan of consumption of solar power with exact calculations to be submitted and increase the Solar power usage to 5% of total power load.	Total power generation from Solar system is 42.52 KW through 29 nos. of PV Panels & 36 nos. of Solar Street Lighting. Total power demand of the proposed building is 715.0 KW. So total solar power generation from the proposed building is 5.94% of total power demand. Details solar calculation is attached in <b>Annexure-13</b> .	submitted
14.	Calculation of number of proposed Rain water harvesting pits appears to be wrong and hence to be recalculated and re submitted. Maximum hourly rainfall be taken based on 30 years data (Climate logic data) and accordingly, no. of rain water harvesting pits be calculated / decided along with the design of the pit including retention time (hold) showing the norms for the same. Thus, this is to be re-submitted.	Rain water harvesting pits (RWHP) has been calculated as per 30 years Rainfall data (1988-2021), as per 30 years data maximum rainfall is 120 mm/hr is considered for Rain Water Harvesting Pit calculation and the retention time is 15 meter is considered. So total rain water available for recharging is 196 m3/hr and total 11 nos. of rain water harvesting pits will be provided for ground water recharging. Detail calculation is given in <b>Annexure-14</b> .	Annexure-14 is attached.
15.	Traffic study should be undertaken from reputed Institute and its findings in terms of LOS (Level of Service) as per IRC norm to be submitted and mitigation plan as and if necessary be submitted.	Traffic Study report is attached in <b>Annexure-15</b> .	Traffic Study report carried out by consultancy with findings in terms of LOS is "B".
16.	Provisional approved plan from concerned Development Authority be submitted, being a basic document for a housing Project.	The building plan has been approved by Sambalpur Municipal Corporation vide letter no. 2719/SMC, dated 11.04.02023. Building plan approval letter from SMC is attached in <b>Annexure-2</b> and building approval drawing is attached in	submitted

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Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<b>Annexure-3.</b>	
17.	Water requirement calculation to be revisited and re-calculated & re-submitted and accordingly, the water management as and if necessary.	Revised Water Calculation is attached in <b>Annexure-16.</b>	Total water requirement has been revised.

18. The proponent has furnished the compliance to the information / documents as sought by Sub-committee of SEAC during site visit dated 21.03.2022 and communicated vide letter no -572 (3)/ SEAC-(Misc)-28, dated 07.06.2022 and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	The project proponent has not obtained the proposed residential building plan approval from Sambalpur Development Authority yet and stated to have applied for the same in April'21. Since this is the basic document based on which other activities follow including consideration of EC, the Project proponent was advised to expedite the same. The project proponent was also advised to submit the acknowledgement copy of the application made for the purpose.	The building plan has been approved by Sambalpur Municipal Corporation vide letter no. 2719/SMC, dated 11.04.02023. Building plan approval letter from SMC is attached in <b>Annexure-1</b> and building approval drawing is attached in <b>Annexure-2.</b>	complied
ii)	The proposed site is having buildings is all its four sides and NH-53 is about 0.5 KM from the project site. There is a leading road of about 12mtr (as stated) width with a divider (dividing almost 6mtr each on both sides) for the project almost extreme end of the boundary till NH-53 and stated to have belonged to the project proponent and now surrendered to Sambalpur Municipality for the purpose of use by the dwellers of this proposed project & their one more existing housing complex, the document of which has been sought from the project proponent. Other than this road leading to NH-53, there is no provision of road in any of the sides of the project site. With this surrounding w.r.to provision of road the provision approval of Sambalpur Development Authority is essential before consideration for EC.	The road connected to National Highway- 53 is developed by Sambalpur Municipal Corporation. The building plan has been approved by Sambalpur Municipal Corporation vide letter no. 2719/SMC, dated 11.04.02023. Building plan approval letter from SMC is attached in <b>Annexure- 1</b> and building approval drawing is attached in <b>Annexure-2.</b>	Complied
iii)	Since river Mahanadi is about at	Surface Water/Municipal Water/PHED	-

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	<p>distance of 4km &amp; Horda Nala at a distance of 1km from the project site, it may not be feasibility to meet the water requirement of the project on operation from these sources.</p> <p>However, they need to approach PHED / Municipality to meet the water requirement with a provision of underground sump in case it is regretted by the authority concerned, they be permitted to use ground water with necessary 'NOC' from CGWA &amp; permission from W.R Deptt, Govt of Odisha.</p> <p>But if they are / provided with PHED / Municipality supply water, they can have one bore well to meet the emergency need, the capacity of which they need to confirm and submit the design of the underground sump showing in the layout map.</p>	<p>water are not available in the area. So we are using Ground Water for the proposed project. Ground Water NoC has been obtained from CGWA vide NoC no. CGWA/NOC/INF/ORIG/2022/16319, dated 14.09.2022. Ground Water NoC is attached in <b>Annexure-3</b>.</p>	
iv)	<p>There is no sewer line provision in Sambalpur at present. As such, the excess treated waste water &amp; surface runoff / storm water need to be discharged to the drain.</p> <p>The project proponent has a small drain adjacent for the project site boundary in the eastern side of length about 100 mtr which is connected vertically to Municipality drain of about 100 mtr length that falls to the main drain of Sambalpur Municipality. Thus, the Nala of project proponent is vertical and perpendicularly confluences with the Municipality drain.</p> <p>So, the project proponent need to submit the design / dimension of their drain outside the boundary on their land and permission for the drain Authority to ultimately discharge the treated waste water (excess) including the permission to leave the additional load.</p> <p>The project proponent stated that it is done be drainage authority under deposit scheme and they need to submit the document of proof of payment under the scheme including the above stated permission.</p>	<p>Treated water &amp; Storm Water will discharge to nearest drain which is connected to the project site. Drainage Permission has been obtained from Sambalpur Municipal Corporation vide letter no. 9211/SBP/ENGG. /SMC, dated 26.09.2022. Drainage permission letter is attached in <b>Annexure-4</b> and Drainage Layout plan is attached in <b>Annexure-5</b>.</p>	submitted

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Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
v)	DG set is to be correctly located w.r to prevalent wind direction so that the emissions do not enter the residential towers / dwelling units and accordingly, the architect / Env. Consultants were advised on the site.	The predominant wind direction of the proposed project area is South-West and the DG set will be installed as wind flow from South-West to North-East. The DG Set position is marked in the layout with respect to predominant wind direction and location of the building tower along with installation drawing/ Layout is enclosed as <b>Annexure-6</b> .	Complied
vi)	All other relevant points viz: Green Belt, Parking , Rain water harvesting, Solar Power, Water balance during monsoon / Non - monsoon / winter & STP, Fire corridor/ Fire clearance etc were discharged & advised for compliance as per norms.	Total greenbelt area provided for the proposed building is 1870.88 sqm, which is 20.06% of the total plot area (9323.23 sqm). Total parking area provided for the Residential building is 6046.66 sqm and ECS provided for the residential building is 150 nos. of 4 Wheelers & 90 nos. of 2 Wheelers including bicycles. Total 605.0 sqm (10.0%) area is provided for visitor parking. Fire recommendation has been obtained from Odisha Fire Service vide recommendation no. RECOMM1306200062022000471, dated 15.02.2022. Fire recommendation letter is attached in <b>Annexure-7</b> .	Complied
vii)	Since the stated 12 m wide road (6m x2 sides) length which vehicles from the residential project will ply and intersect at NH-53 (very busy road), the traffic study need to be undertaken by an institute of repute and submitted with decongestion plan as and if necessary is reference to IRC norm. This was advised to all present i.e. project proponent/ Architect / Env. Consultant.	Traffic Study Report is vetted by IIT Bhubaneswar for the proposed building. Traffic Study Report is attached in <b>Annexure-8</b> .	Traffic Study report carried out by consultancy with findings in terms of LOS is "B".  <b>Traffic Study Report is vetted by IIT Bhubaneswar for the proposed building was not found.</b>
viii)	There are discrepancies / mismatch w.r.t built up area / FAR area at different places of the report, the same need to be corrected as necessary.	The detail area statement of the proposed building is attached in <b>Annexure-9</b> .	Detail area statement of the proposed building has been submitted.
ix)	The project will have 03 residential towers having 130 dwelling units and will have no commercial complex (as stated & stated to have wrongly mentioned).	The proposed project is only Residential Purpose; no commercial complex is proposed. The Building Plan approval letter is already attached in <b>Annexure-1</b> .	-
x)	The project proponent / Architect	Separate entry & exit is provided for	complied

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	present were advised to have provision for separate gates for entry & exit with pedestrians' pathways and show the same with appropriate dimensions in the layout map & submitted.	residential building. A layout plan is already attached in <b>Annexure-1</b> .	

Considering the information furnished and the presentation made by the consultant, **M/s Centre for Envotech & Management Consultancy Pvt. Ltd., N-5/305, IRC Village, Bhubaneswar** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – A** in addition to the following specific conditions.

- i) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
- ii) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.
- iii) The proponent shall use solar energy at least to the tune of 5%of total power requirement as proposed.
- iv) The proponent shall obtain permission from concerned Fire Safety Authority.
- v) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- vi) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- vii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- viii) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

#### **ITEM NO. 05**

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

1. The proposal was considered by the committee to determine the “Terms of Reference (ToR)” for undertaking detailed EIA study for the purpose of obtaining environmental clearance in accordance with the provisions of the EIA Notification, 2006 and amendment thereafter.

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**Environmental Scientist, SEAC**



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

**Table: Area details**

Particular	Proposed	Permissible
Project Name	NEW HOSTEL OF XIM UNIVERSITY	
Plot Area	2,22,575.42 sqm (55 acre)	
Ground Coverage	34423 .00 sqm. (15.46%)	
Total Built up Area	1,70,773 sqm	
FAR	0.77	
Maximum Height	31.5 m	
Road & Paved Area	114229.4 sqm	
Parking Area	69,706 sqm	69344 sqm (40% of BUA)
Green Belt Area	73,923 sqm (33.2% of the plot area)	44,515 sqm (20% of the plot area)

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Power/Electricity Requirement & Sources	800 KVA Source: TPCODL	
No. of DG sets	2x500 KVA, 4x250 KVA, 1x125 KVA, 1x62.5 KVA	
Fresh Water requirement & Sources	273.0 KLD Source: IDCO Supply	--
Sewage Treatment Plant	STP – 0.55 MLD	
Estimated Population- Residential, Floating	Residential – 3000 Nos. Floating – 600 Nos.	

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

#### 10. Land breakup:

Particular	Existing	Proposed	Total
Plot Area	1,41,169.0 sqm (35 Acre)	81,406.4 sqm (20 Acre)	2,22,575.40 sqm (55 acre)
Ground Coverage	31,389.0 sqm (14.10%)	3,034.0 sqm (1.36%)	34,423.0 sqm (15.46%)
<b>Total Built up Area</b>	<b>1,44,160.0 sqm</b>	<b>26,613.0 sqm</b>	<b>1,70,773.0 sqm</b>
FAR	0.65	0.12	0.77
Maximum Height	--	--	28 m
Road & Paved Area	--	--	114229.4 sqm
Basement Parking	1,050.0 sqm	--	1,050.0 sqm
Stilt Parking	1,538.0 sqm	--	1,538.0 sqm
Surface Parking	55,438.0 sqm	9,092.0 sqm	67,118.0 sqm
<b>Total Parking Area</b>	<b>58,026.0 sqm</b>	<b>9,092.0 sqm</b>	<b>69,706.0 sqm</b>
Green Belt Area	29,075.0 sqm	44,848.0 sqm	73,923 sqm (33.2% of the plot area)
Power/Electricity Requirement & Sources	1283 KW Source: TPCODL	235.0 KW Source: TPCODL	1518.0 KW Source: TPCODL
No. of DG sets	2x500 KVA & 1x300 KVA	--	2x500 KVA & 1x300 KVA
Fresh Water requirement & Sources	192.0 KLD Source: IDCO Supply	81.0 KLD Source: IDCO Supply	273.0 KLD Source: IDCO Supply
Sewage Treatment Plant	STP – 300 KLD	STP – 250 KLD	STP – 550 KLD

11. **Water requirement:** Freshwater make up of 273.0 m<sup>3</sup>/day will be required for the project which will be sourced from IDCO supply water.

12. **Wastewater generation and Treatment:** Every building generates wastewater amounting about 80% of total water consumed. The major source of wastewater includes the grey water from kitchens, bathrooms, and black water from toilets. It is expected that project will generate approx.

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353.4 m<sup>3</sup>/day of wastewater. The wastewater will be treated in the STP of capacity of 550 KLD provided within the complex.

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

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

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

**Table: Solid waste Generation**

S. No.	Category	Counts (heads)	Waste generated

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			(kg/day)
1.	Residential	3000 @ 0.45 kg/day	1350.0
2.	Floating Population	600 @ 0.15 kg/day	90.0
3.	STP sludge		40.0
<b>Total Solid Waste Generated</b>			<b>1480.0 kg/day</b>

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

20. **Environment Consultant:** The Environment consultant **M/s Centre for Envotech and Management Consultancy Pvt. Ltd, Bhubaneswar** along with the proponent made a presentation on the proposal before the Committee on 14.02.2023.

21. The SEAC in its meeting dated 14-02-2023 recommended the followings;

**i) The proponent may be asked to submit the following for further processing of TOR application.**

- a) Built up area constructed after 14<sup>th</sup> September, 2006.
- b) Total built up area of the existing project and proposed built up area.
- c) Copy of all the building plan approval letters.
- d) Justification as to why, this will not be considered as violation case.

**ii) The proposed site shall be visited by Sub-Committee of SEAC to verify the followings;**

- a) Construction activity, if any started for the proposed project at the site and to verify details of construction activity of existing building.
- b) Any other issues.

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

- a) PP and Consultant were present.
- b) The PP explained that 1.4 lakh sqm approval was taken earlier and completed. Later they applied for additional 24077 sqm approval when the EC was required. Out of this, construction of about 10000 sqm has been done structurally. PP was asked to submit an explanation, why the proposal cannot be a violation case.
- c) Since it is an IDCO allotted land, Road and Drain connectivity will be provided by IDCO. However, Road connectivity is there and they have developed a small pond for excess treated besides RWH.
- d) Plantations (green belt) are available in existing building and to be extended to the new facilities.
- e) PP informed 610 KW solar facility already installed.
- f) Documents asked during presentation needs to be submitted.

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23. 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.	Built up area constructed after 14 <sup>th</sup> September, 2006.	New Campus has constructed 1.4lakhs sq.m with the approval of competent authority. Later they applied for additional 24077 sqm approval when the EC was required. Out of this, construction of about 10000 sqm has been done structurally.
2.	Total built up area of the existing project and proposed built up area.	Not submitted.
3.	Copy of all the building plan approval letters.	BDA approval plan vide letter no.15450 dated 30.04.2022 has been granted for total built up area 144160.00sqm.
4.	Justification as to why, this will not be considered as violation case.	Not submitted

24. The SEAC in its meeting held on dated **10-05-2023** decided to take decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
xi)	The PP explained that 1.4 lakh sqm approval was taken earlier and completed. Later they applied for additional 24077 sqm approval when the EC was required. Out of this, construction of about 10000 sqm has been done structurally. PP has to justify, why the proposal cannot be a violation case.	<p>We have constructed New Campus building with total built up area of 1.4 lakhs sq.m over 35 Ac of land in different phases from 2012 to 2022 with the approvals of the competent authority.</p> <p>In 2022, we got an additional land of 20 acres, and received an approval from BDA, for the proposed hostel building with a built-up area of 24,077sqm on 06.02.2023.</p> <p>The total built-up area of the existing and proposed building is 1.6 lakhs sqm.</p> <p>We have started two new UG programmers from this Academic Year with the approval of the Govt. of Odisha. As we have shortage of accommodation facility for students, with the approval of the competent authority, we have started the construction of a Hostel Building and completed core structure for 10,000 Sqm, i.e within the limit of 1.5 lakhs Sqm as per EIA Notification 2006.</p>	
xii)	To submit the information as asked in	The total built-up area of the existing	

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	point no. 2 i.e. Total built up area of the existing project and proposed built up area.	projects is 1.4 lakhs sq.m and the built-up area of the proposed project is 24,077sqm. So total built up area of existing & proposed project is 1.6 lakhs sq.m	

The SEAC observed that the proponent has already constructed the project without obtaining Environmental Clearance as per EIA Notification 14<sup>th</sup> Sept. 2006 and amendment thereafter. 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 – B along with the following specific Term of Reference** 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 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) The proponent shall pay the penalty for such violation as per SoP for violation issued vide OM F No. 22-21/2020/IA. III, dtd. 07.07.2021 of MoEF & CC, Govt. of India.
- (vii) Fire disaster management plan specially designed for topmost floors with detailed note on hydrant system pump and water storage.
- (viii) Detailed calculation of renewable energy/solar energy along with roof top solar plan layout.
- (ix) Clear site layout showing all features of the project and distance from road.
- (x) Traffic Study Report to be submitted and vetted from reputed institute.

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- (xi) Structural Stability certificate from appropriate authority as per regulatory authority guidelines be submitted and vetted from reputed institute.
- (xii) Detailed calculation of Rain Water Harvesting and Layout showing Rainwater Harvesting pits.
- (xiii) Layout map showing the treated water fallout to nearest drain and its distance.
- (xiv) Layout of internal drainage map and their fallout to external public drain.
- (xv) Copy of permission of the concerned authority of the drain / sewer to discharge the treated water from project to the nearby drain.
- (xvi) Reduce discharge of treated water to drain by planting more trees.
- (xvii) The greenbelt to be provided along the outer periphery of the plot along the boundary the spacing maybe reduced to 2m x 2m to accommodate more trees and should be planted on a hierarchical pattern.
- (xviii) The concept of vertical garden may also be considered apart from landscaping, potted plants, Parks & Gardens.
- (xix) The water Treatment Plant, Waste Water Treatment Plant, STP, DG set's location to be marked in the layout plan.
- (xx) Adequate overhead portable water tank to be provided as per the norms apart from Treated Waste Water tank for use in dual plumbing system for the flush in the toilet.
- (xxi) To submit Sabik RoR with Kisam and Hal RoR with Kisam to rule out involvement of Forest and DLC land in the project.
- (xxii) For parking of various types of vehicle adequate provision of basement, Stilt, Open area and Mechanical parking may be considered.
- (xxiii) Provision of lift with ventilation, lighting and AC from lowest basement to terrace roof top to be provided.
- (xxiv) Efforts for Energy Conservation in the project as per Bureau of Energy Conservation in line with Energy Conservation Act, 2003 to be submitted for the project.
- (xxv) Disaster Management Plan for the project may be prepared and submitted as per Disaster Management Act, 2005.
- (xxvi) Indicate the system of Storm Water Drainage, Rainwater Harvesting System and Recharge Well.

#### **ITEM NO. 06**

#### **PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S INDIAN METALS FERRO ALLOYS FOR MAHAGIRI MINES (CHROMITE) FOR EXPANSION IN PRODUCTION CAPACITY OF CHROMITE ORE FROM 3 LAKH TPA TO 6 LAKH TPA OVER AN MINING LEASE AREA OF 73.777 HA. LOCATED AT VILLAGE- KALIAPANI, TAHASIL - SUKINDA, DISTRICT - JAJPUR, ODISHA OF SRI SANDEEP B. NARADE - EC**

1. This proposal is for Environmental Clearance for M/s Indian Metals Ferro Alloys for Mahagiri mines (Chromite) for expansion in production capacity of Chromite ore from 3 Lakh TPA to 6

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Lakh TPA from over a mining lease area of 73.777 ha. located at Village - Kaliapani, Tahasil - Sukinda, District - Jajpur, Odisha of Sri Sandeep B. Narade.

2. **Category:** The present proposal falls under category 'B' project of schedule 1(a) – Mining of minerals under as per EIA Notification 14th September 2006 and amended thereafter.
3. The State Government granted the mining lease over an area of 73.777 ha. in Village-Kaliapani, Tahasil-Sukinda, District - Jajpur, Odisha. The lease was executed on 20.09.2005 in favour of M/s Indian Charge Chrome Limited for exploitation of chromite ore for a period of 30 years i.e., from 20.09.2005 to 19.09.2035 (Lease validity is deemed to have been extended upto 19.09.2055 as per MMDR amendment act, 2015).
4. Transfer of the mining lease from M/s Indian Charge Chrome Ltd. to M/s Indian Metals & Ferro Alloys Ltd. was executed on 19.11.2015. It is a running mine with lease validity up to 19.09.2055 as per MMDR Act.
5. Forest Clearance has been obtained for the entire lease area of 73.777 ha. in three phases. First phase FC has been granted on 18.05.2005 vide letter no. F.No. 8-116/2002-FC for an area of 63.91ha. Second phase FC has been granted on 18.11.2014 vide letter no. F.NO.8-116/2000-FC(VOL) for an area of 2.47ha. (Safety zone). While third phase FC has been granted on 30.10.2018 for an area of 7.397ha. (Sabik Kisam Forest) vide letter no. F.No.8-116/2002-FC (Vol.I).
6. NOC from CGWA has been obtained for extraction of 1000 KLD of groundwater vide letter no. CGWA/NOC/MIN/REN/1/2021/6551, dated 04/06/2021 and valid up to 03/06/2023 where 10 KLD water abstraction is allowed from borewell for drinking & domestic purpose while 990 KLD is through dewatering of mine seepage water.
7. The site specific wildlife conservation plan has been approved vide letter no 720/7WL-FD&WLC-209/2020 on dated 25.01.2021 with financial forecast of Rs. 346.032 lakh for various activities.
8. The modified Mining Plan for the period 2020-21 to 2024-25 with enhancement in production capacity of 3.0 to 6.0 LTPA of chromite ore from fully mechanized underground mining has been approved by IBM vide its letter no. MRMP/A/17-ORI/BHU/2020-21/784 dated 11.08.2021, which is in force. The proposed production from underground is envisaged to be a maximum of 6.0 LTPA which will be achieved in 2029-30 progressively.
9. Earlier Environmental Clearance for production of 3.0 LTPA was granted by MoEF&CC vide letter no. J-11015/345/2007-IA.II (M) dated 29.10.2012 and by subsequent amendments dated 02.01.2014 (for extension in EC validity for grant of Forest Clearance regarding diversion of 2.47ha. of safety zone by 31.01.2015) & 17.03.2015 (deletion of specific condition (iii) of EC letter dated 29.10.2012 & 02.01.2014).
10. CTO has been obtained from State Pollution Control Board vide letter no. 551/IND-I-CON-5331 dated 07.01.2022 which is valid upto 31.03.2026 for the production of 0.3 MTPA.
11. Past production had been certified by Deputy Director Mines, Jajpur road circle, Jaipur vide memo no 757/mines on dated 27.05.2021.

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12. Six Monthly Compliance report has been submitted for the period of April 2022 to Sep 2022 on dated 24.11.2022 to RO, MoEF. The Project proponent has submitted previous certified compliance report issued by RO, MoEF, Bhubaneswar, vide letter no. 101-331/21/EPE dated 21.10.2021.
13. The project has been granted Terms of Reference by SEIAA, Odisha vide letter no. 3496/SEIAA dated 18.11.2021.
14. **Public Hearing details:** The public hearing for the project was conducted on 06th July, 2022 at Mahagiri Enclave (Khata No. 53/15, Plot No. 664), Village - Kaliapani, Tahasil - Sukinda, District- Jajpur, Odisha. Local Employment, medical facilities and plantation was the main issues raised during the public hearing. The project proponent has proposed to spend Rs. 200 Lakhs in next five years under social activities.
15. Present proposal is for expansion of mining of chromite mineral from production capacity 3 LTPA to 6 LTPA from Mahagiri mines of M/s Indian Metals & Ferro Alloys Limited. The entire mine lease area of 73.777 ha. is forest land.
16. **Location and connectivity:** The lease area of 73.777 ha. is located in village Kaliapani, Tahasil - Sukinda, District - Jajpur, Orissa State. The study area falls in the Survey of India Topo-sheet no. F45N16 and the geo coordinates are Latitude - 21°01'16.66"N to 21°01'56.83"N and longitude 85°46'24.94"E to 85°47'13.58"E. Nearest road is Tomka-Mangalpur road passes in the north-north western side of the mining lease area at a distance of 1.29 km. The project is at a distance of 11.07 km South from NH-200. The nearest railway station is Tomka at 21.60 km from the lease area. Nearest Airport is Birasal Airport at 10.98km. There are no National Parks, Sanctuaries, Biosphere Reserves, Wildlife Corridors, Ramsar site, Tiger/Elephant Reserves within 10 km of the mine lease area. The area comprises hilly and undulating terrain. The Daitari hill range is located in the north and the Mahagiri range occupies the southern portions. The central valley portions of the area is drained by Damsal Nala flowing in westerly direction. It forms the main watershed of the study area. The entire drainage originating from Daitari hills in north and Mahagiri in the south join Damsel Nala.
17. **Mining method and production:** Mining of Chromite will be done by fully mechanized underground mining in a lease area of 73.777 ha. The process of underground mechanised mining will involve drilling, blasting, loading and transportation. There is no processing or beneficiation process involved, except, ROM is only crushed and screened to different sizes. This method of development and stopping leaves no rib pillars between two stope blocks. A crown pillar of 10 m thickness is being left in between two stopping levels. Drilling is being done by single/double boom jumbo drill & blasting is being done using slurry explosives for development in waste and ore drives. Ultimate pit limit of underground mining will be (-) 395 mRL as per present exploration. The maximum proposed production of Chromite Ore will be 6 LTPA.
18. During the period from 01.04.2021 to 31.03.2025, it is proposed to exploit 15.0 lakh tons of ROM from underground mines. So, the mineral reserve and resource category after 2024-25 shall be 157.45 lakh tons. Life of Mine will be 31 years.
19. **Waste generation:** Generation of waste in the conceptual period is estimated to be around 8.89 Lakh CuM. The waste generated from underground working shall be utilised for backfilling

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of mined out areas of opencast working, as well as for ground levelling within the leasehold area for different land use purposes. The overburden/waste material shall be utilised for backfilling of underground stope voids. In case of the generation of mineral reject, it will be separately stacked within the area designated for Mineral Storage.

20. **Water requirement:** The water requirement of the project will be fulfilled by seepage water which will be used after treatment in ETP located in Sukinda Mines (Chromite) of the same lessee and 10 KLD fresh water from the borewell will be used for drinking & domestic purposes. For this purpose, NOC from CGWA has been obtained for extraction of 1000 KLD of groundwater vide letter no. 21-4(107)/SER/CGWA/2008-1212 dated 12.06.2018 where 10 KLD water abstraction is allowed from the borewell for drinking & domestic purposes and 990 KLD is through dewatering of mine seepage water. Detailed water usage is mentioned in below table.

Particulars	Unit	Existing Quantity	Total after expansion	Source (Groundwater/Surface Water/other)
Drinking & Domestic	KLD	50	60	U/G mine dewatering after treating in WTP
Plantation	KLD	134	143	ETP
Sprinkling	KLD	90	90	ETP
Underground Drilling	KLD	100	150	U/g mine dewatering
Backfilling Plant	KLD	160	160	U/g mine dewatering
<b>Total</b>	<b>KLD</b>	<b>534</b>	<b>603</b>	

21. **ETP/STP:** It is proposed to expand the capacity of existing ETP from 360 cum/hr to 1260 cum/hr and to install the additional ETP of 900 cum/hr capacity in view of increase in the dewatering rate after expansion of the project. Domestic wastewater generated from administrative activities and canteen is treated in the Sewage Treatment plant of capacity 50 KLD. The treated water is used for mines, dust suppression and plantation. Discharge to outside lease area into the natural drainage after meeting SPCB standards is 940KLD.
22. Rain water Harvesting system has been adopted and each year 61985 cum/year of water is harvested.
23. **Power requirement:** Total power requirement after the proposed expansion project will be 4.0 MVA and it will be met from Central Electricity Supply Utility of Odisha (CESU) grid line. A 2000 KVA Sub-station has been established with 33 KV/433V transformers. Three 750 KVA, D.G. sets have been installed for illumination, ventilation and operation of pumps in case of power failure. The daily consumption of diesel for running machineries & DG set is 5 KLD and after expansion will be 10 KLD. The diesel will be sourced from the M/s Indian Oil Corporation Limited (IOCL).
24. **Greenbelt:** Green belt/plantation has been developed around the mining activity area, safety zone, along haul road. In addition, 1.8 ha. out of 5.090 ha. of OB dump area and 2.19 ha. out of

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6.9 ha. of backfilled area has also been covered by plantation, around 9.33 ha. is under greenbelt. At the end of the conceptual period around 60.66 ha. area will be reclaimed by plantation.

25. The baseline data was collected from October 2021- December 2021 .The details are given below:

**26. Micro- meteorological data:**

- Temperature: Temperature of the area varies from 6.62<sup>0</sup>C to 31.08<sup>0</sup>C
- Relative Humidity: The relative humidity varies from 40.4 to 99.93.
- Wind Speed: Wind speed normally is in the range of 0.02 Km/hr to 6.86 Km/hr.

27. **Ambient Air Quality Results** - Samples were collected from 8 sampling locations. The following results were obtained.

S.No	Parameters	Mean Value Range (Core Zone)	Mean value Range (Buffer Zone)	Standard
1.	PM 2.5 (µg/m3)	24.15 - 25.97	25.19-37.66	24 hrs: 60 µg/m3
2.	PM 10 (µg/m3)	58.69-63.11	61.22-91.51	24 hrs: 100 µg/m3
3.	SO2 (µg/m3)	6.40-6.92	6.71-10.71	24 hrs: 80 µg/m3
4.	NO2 (µg/m3)	16.77-18.03	17.49-26.33	24 hrs: 80 µg/m3
5.	CO (mg/m3)	0.24-0.25	0.25-0.37	8 hrs: 02 mg/m3

28. **Noise Quality results:** Samples were collected from 9 locations. The following results were obtained.

S. No.	Parameters Leq noise level	Type of Area	Range dB(A) - Core Zone	Range dB(A)- Buffer Zone	Standard in dB(A)
1.	Day Time	Industrial Area	64.9 - 65.5	–	75
2.	Night Time		57.9-58.8	–	70
3.	Day Time	Residential Area	--	56.2-58.2	55
4.	Night Time		--	46.5-48.9	45

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5.	Day Time	Commercial Area	–	68.5	65
6.	Night Time		–	62.7	55

**29. Water Quality Results:** The samples were collected from 18 locations (8 samples of ground water 10 samples of surface water).

**30. Ground water quality- Core zone & Buffer Zone:**

- ❖ The **Total Dissolved Solids (TDS)** of the sampling locations W1, W2, W3, W4, W5, W6, W7, W8 ranges from 49.7 mg/l to 317 mg/l which are within the drinking water standard (IS:10500) i.e. 500 mg/l.
- ❖ The **Total Hardness** of the sampling locations ranges from 28 mg/l to 260 mg/l. Total Hardness of sampling locations Sukurangi Village and Giringamali village are found higher than the drinking water standards (IS:10500).
- ❖ The **Alkalinity** of the sampling locations ranges from 31 mg/l to 356 mg/l. Alkalinity of all sampling locations except for Sukurangi Village (356 mg/l), OMC colony (244 mg/l), Giringamali village (356 mg/l), and Kendubani Village (321 mg/l) are within the drinking water standards (IS:10500) i.e. 200 mg/l.
- ❖ The **Fluoride** content in the sampling locations ranges from <0.1 mg/l to 0.4 mg/l. which are within the drinking water standard (IS:10500) i.e. 1.0 mg/l.
- ❖ The **Calcium** Concentration of sampling locations ranges from 4.8 mg/l to 67.2 mg/l. Calcium levels of sampling locations are within the drinking water standards (IS:10500) i.e. 75 mg/l.
- ❖ The **Magnesium** Concentration of sampling locations ranges from 3.9 mg/l to 25.3 mg/l. Magnesium levels of sampling locations are within the drinking water standards (IS:10500) i.e. 30 mg/l.
- ❖ The **Chloride** Concentration of all the sampling locations ranges from 14 mg/l to 48 mg/l. Chloride levels of all the sampling locations are within the drinking water standards (IS:10500) i.e 250 mg/l.

**31. Surface water quality-** The majority of the water quality parameters in the selected sites were within their respective drinking water quality standards. Moreover, DO values fall under class 'D' and 'E' as per CPCB guidelines. Surface water quality criteria indicating that the surface water quality within the region can be used for Irrigation, Industrial Cooling, and Controlled Waste disposal.

**32. Soil Quality Results:** The samples were collected from 18 locations:

**33. Core Zone:** The soil samples collected from the core zone sites show that the soil texture in the core zone is Clay, Sandy clay, Sandy loam, Silt loam, Loam having average fertility in the Core Zone.

**34. Buffer Zone:** The soil samples collected from the buffer zone sites show that the soil texture in the buffer zone is Clay, loam, silt clay and Clay Loam. Primary nutrient profile shows that soil is average fertile due to the availability of low amounts of nitrogen, available potassium.

**35. Ecology and Biodiversity Results:** There are a total 11 Schedule I Species of fauna found in the buffer zone as mentioned, for which site specific wildlife conservation plan has been approved by PCCF & Chief Wildlife Warden, Odisha vide letter no.720/7WLF&WLC/209/2020 dated 25.01.2021.

36. **Manpower:** The proposed project will be additional 331 manpower for the proposed expansion in the mine, apart from existing 746 employees.
37. **Project cost:** The project cost is Rs. 154.30 Crores (Only for expansion project) and Proposed EMP Capital cost is Rs. 69.66 Lakh and annual recurring cost is 28.69 lakhs.
38. The Environment consultant **M/s Perfect Enviro Solutions Pvt. Ltd, New Delhi**, along with the proponent made a presentation on the proposal before the Committee on dtd. 13.01.2023.
39. The SEAC in its meeting held on dated **13-01-2023** decided to take decision on the proposal after receipt of the following from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
a)	Detail report on leaching of Cr <sup>6+</sup> and microbiological analysis on water of ETP.	Report prepared by National institute of technology, Rourkela, Odisha on leaching of Cr <sup>6+</sup> and microbiological analysis on water of ETP are attached at Annexure No. I.	complied
b)	Traffic study report vetted by a reputed institute.	The traffic study report vetted by National institute of technology, Rourkela, Odisha is attached at Annexure No. II.	LOS – C as per the traffic study report.
c)	Detail report on bio magnification on water discharge to Damsala Nala.	Report prepared by National institute of technology, Rourkela, Odisha on bio magnification on water discharge to Damsala Nala are attached at Annexure No. I.	complied
d)	Certified compliance report to existing CTO conditions from SPCB, Odisha.	Certified compliance report of CTO for Mahagiri Chromite mines has been obtained vide letter no. 5858/IND-I-CON-5331 dated 10.04.2023. The same is attached as Annexure No. III.	complied
e)	Copy of study report conducted on backfilling materials.	The study report on backfilling material is attached as Annexure No. IV	complied
f)	The mine is a captive mine of Ferro-Alloys Plant of the proponent. Justification whether the plant is designed to use 6 lakh Ton per Annum of Chromite Ore as proposed.	The justification for enhancement in production capacity of chromite are upto 6 lakhs TPA is attached as Annexure No. V.	complied
g)	The test results for the water quality parameters for all the sampling locations to be provided in tabular format.	The test results for water quality parameters for all the sampling locations are attached as Annexure No. VI.	complied

Considering the information furnished and the presentation made by the consultant **M/s Perfect Enviro Solutions Pvt. Ltd, New Delhi** along with the project proponent, the SEAC recommended for grant of Environmental Clearance with stipulated conditions as per **Annexure – C** and following specific conditions.

- i) The project proponent shall monitor analysis of hexavalent chromium in nearby soil and water body periodically and follow mitigation measures if necessary.

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- ii) The PP to explore implementation of new technology for removal of hexavalent Cr.
- iii) **All the compliances submitted/ committed by PP (s) shall be strictly adhered to by them.**

#### **ITEM NO. 07**

#### **PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S AM SB INFRA PVT. LTD FOR COMMERCIAL CUM RESIDENTIAL APARTMENT BUILDING PROJECT OVER A BUILT-UP AREA 23844.03 SQ.M AT VILLAGE SUNDARPADA & EBARANGA, TEHSIL-BHUBANESWAR, DISTRICT-KHURDA OF SRI ASHIS MOHANTY - EC**

1. This proposal is for Environmental Clearance of M/s AM SB Infra Pvt. Ltd for Commercial Cum Residential Apartment Building Project over a built-up area 23844.03 sq.m at Village Sundarpada & Ebaranga, Tehsil-Bhubaneswar, District-Khurda of Sri Ashis Mohanty.
2. **Category:** The project falls under category "B" or activity 8 (a)-Building & Construction Project under EIA Notification dated 14th September 2006 as amended from time to time.
3. M/s AM SB Infra Pvt. Ltd. proposes a Commercial cum Residential Apartment building (B+G+7) at Bhubaneswar, Odisha.
4. The project site is located at plot no-698, khata no 796/705 of Sundarpada & plot no 628/1057, 629/917/1059, 629/1058, 628/4359, 629/4360, 629/917/4361, khata no 345/861, 345/2636 Mauja-Ebaranga, District- Khurda, Odisha.
5. The Plot area is 8791.52 m<sup>2</sup> (2.172 acre) and the total proposed built-up area is 23,844.03 m<sup>2</sup>.
6. The project comprises of the following facilities: Residential Dwelling Units 103 nos., Community Hall and Commercial Facilities.
7. **Location and connectivity:** The project site is located at Plot No 698, khata no 796/705 of Sundarpada & plot no 628/1057, 629/917/1059, 629/1058, 628/4359, 629/4360, 629/917/4361 khata no 345/861, 345/2636 Mauja-Ebaranga & Sundarpada , District- Khurda, Odisha. The geographical co-ordinates of project site are 20°13'08.78"N and 85°48'37.73"E bearing Toposheet No. 73H16. The Nearest Highway is NH-16 which is 4.2 km (NW), & NH-316 is 4.4 km towards SE direction away from project site. The nearest Railway Station being Sarkantra RS Railway Station is about 1.6 km (NW) away from the project site. Biju Patnaik International Airport is at 2 km (N) from project site.
8. **Statutory Clearances obtained/applied:**
  - a) The proposed project falls under Bhubaneswar Municipal Corporation and building plan is approved by BDA vide letter no BNB/NOC/2022/030 dated 11.03.2022.
  - b) Fire safety recommendation has been issued by Odisha Fire Service vide letter no RECOMM1204130062022000670 dated 29.06.2022.
  - c) Permission for installation of power supply is issued by TPCODL vide letter no 7972 dated 30.11.2021.
  - d) NOC for water supply and sewerage connection has been granted by PHD, Bhubaneswar vide letter no 13309 dated 22/08.2022.

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e) Application for Issue of NOC to Abstract Ground Water (NOCAP) is applied vide letter no 21-4/4894/OR/INF/2023 dated 01/04/2023

9. **Area Statement:** The total area of project site is 8791.52m<sup>2</sup> (2.172 acres). The details of building are as follows: -

S. No.	Description	Area (in m <sup>2</sup> )
1.	Plot area	8791.52
2.	Area Affected By Road	933.27
3.	Net plot area	7858.25
4.	Permissible Ground Coverage (@40% of plot area)	3143.3
5.	Proposed Ground Coverage (@ 38.59% of plot area)	3033.12
6.	Permissible FAR (@7 of plot area)	55,007.75
7.	Total Proposed FAR (@2.297 of net plot area)	18,057.03
8.	<b>Non-FAR Area</b>	<b>5787</b>
	• Basement Parking Area	5479.49
	• Basement Service Area	307.51
9.	<b>Total Built-up area (7+8)</b>	<b>23,844.03</b>
10.	Proposed Parking Area (@33.17% of FAR area)	5989.516
11.	Proposed Green Area (@20.36% of the net plot area)	1600
12.	Height of the tallest building (m)	24 m

10. **Water requirement:** During operational phase, total water requirement of the project is expected to be 92 KLD (53 KLD of fresh water and 32 KLD Recycled Water). Freshwater requirement will be met by ground water/bore wells.

S. No.	Description	Occupancy	Rate of water demand (lpcd)		Total Water Requirement (KLD)		
			Fresh	Flushing	Fresh	Flushing	Total
A.	<b>Domestic Water</b>						
	• Residents	515	90	45	46.35	23.175	<b>69.52</b>
	• Staff	172	25	20	4.3	3.44	<b>7.74</b>
	• Visitors	498	5	10	2.49	4.98	<b>7.47</b>
					<b>53 KLD</b>	<b>32 KLD</b>	<b>85 KLD</b>
<b>Total Domestic Water = 85 KLD</b>							
B.	Horticulture	1600 m <sup>2</sup>	4 l/sqm		<b>6 KLD</b>		
C.	Make up Water for Swimming pool				<b>1 KLD</b>		
<b>Grand Total (A+B+C) = 92 KLD</b>							

11. **Waste water Generation & Treatment:** Estimated Wastewater generation is 75 KLD and the same will be treated in STP of total 90 KL capacity. 38 KLD of treated wastewater will be recycled

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and reused for flushing and horticulture. Surplus treated water of 30 KLD in Non-Monsoon Period and 35 KLD in Monsoon Period will be discharged to external sewer.

<b>Domestic Water Requirement</b>	<b>85 KLD</b>
• Fresh	53 KLD
• Flushing	32 KLD
<b>Wastewater</b> [@80% fresh + 100% flushing]	42.4+ 32= <b>75 KLD</b>
STP Capacity (20 % higher than waste water)	90 KLD

12. **Rainwater harvesting:** It has been calculated to provide 6 rainwater harvesting tanks at selected locations, which will catch the maximum run-off from the site.

Area	Area (m <sup>2</sup> )	Coefficient of run-off	Peak hourly rainfall intensity (m)	Rain water harvesting potential/hour (m <sup>3</sup> /hr)
Roof-top area	3,130.58	0.95	0.140	416.367 m <sup>3</sup> /hr
<b>Total Runoff Load = 416.367 m<sup>3</sup>/hr</b>				
Taking 20 minutes retention time, total volume of storm water will be = 416.367/3			138.789 m <sup>3</sup> say 139 m <sup>3</sup>	
Storage capacity of 6 RWH tanks			25 X 6 = 150 m <sup>3</sup>	
<b>6 nos. of RWH tanks are proposed for rain water collection</b>				

13. **Power requirement:** The power supply will be through TP Central Odisha Distribution Limited (TPCODL). The total maximum demand is estimated as 930 kVA. There is provision of 2 nos. of DG sets total 570kVA (1 x 320 kVA + 1 x 250 kVA) capacity for power back up. The height of DG stack is 28m. Solar based lighting is proposed in the landscape area, signage, entry gates and boundary walls etc., and LED lighting to save about 10% of total power requirement.

14. **Solid waste details:** About 386 Kg/day solid wastes will be generated in the project. The biodegradable waste 232 kg/day will be processed in OWC and the non-biodegradable waste generated 154 kg/day will be handed over to authorized local vendor. Horticultural Waste and STP sludge would be used as manure. Spent oil from DG sets will be disposed-off through approved recyclers.

S. No.	Description	Occupancy	Norms (kg/capita/day)	Waste Generated (kg/day)
a)	<b>Domestic Solid Waste</b>			
	• Residents	515	0.5	257.5
	• Staff (Maintenance, Commercial, Office)	172	0.25	43
	• Visitors (Maintenance, Commercial, Office)	498	0.15	74.7
b)	<b>Horticultural Waste</b> (0.395 acre)		@ 0.2 kg/acre/day	0.079
c)	<b>STP Sludge</b>		Wastewater x 0.35 x B.O.D difference/1000	10.5
<b>Total Solid Waste Generation = 386 kg/day</b>				

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15. **Parking details:** Total Parking proposed is 193 ECS /5989.82m<sup>2</sup>. Parking required 5958.67m<sup>2</sup>. Parking proposed in Basement (171 ECS/5479.49sqm.), stilt (3 ECS/97.46sqm), surface (5 ECS/106.29sqm.) and Offstreet (14 ECS/306.58sqm).
16. **Green Belt:** Total green area measures 1600 m<sup>2</sup> i.e. 20.36% of the plot area. Evergreen tall and ornamental trees have been proposed to be planted inside the premises. No. of trees required = 1 tree/80 sq.m. of net plot area =7858.25/80 = 98.228 say 98 Nos. Total no. of trees proposed is 115 trees. The plantation matrix adopted for the green belt development includes pit of 0.3 m x 0.3 m size with a spacing of 2 m x 2 m. Peripheral plantation comprising of medium height trees (7 m to 10 m) and shrubs (5 m height) are proposed for the green belt.

<b>Proposed Roadside &amp; Peripheral Plantation</b>		
<b>S. No.</b>	<b>Botanical Name</b>	<b>Number</b>
1	<i>Alstonia scholaris</i>	15
2	<i>Lagerstroemia Flosreginae</i>	25
3	<i>Azadirachta Indica</i>	23
4	<i>Mimusops Elengi</i>	15
5	<i>Tamarindus Indica</i>	15
6	<i>Syzygium Cumini</i>	10
7	<i>Mangifera Indica</i>	12
	<b>Total</b>	<b>115</b>

17. **Project cost:** The Total Cost (Land Cost + Development Cost) of the proposed project will be INR 53 Crores. EMP budget includes the capital cost for environmental management of the proposed project is estimated to be Rs. 29.8 lakhs. Rs. 16.45 lakhs per year that will be required as annual recurring expenses to meet the recurring expenditure for implementing the measures.

<b>COMPONENT</b>	<b>CAPITAL COST (INR LAKH)</b>	<b>RECURRING COST/YR (INR LAKH)</b>
Sewage Treatment Plant	9	2.25
Rain Water Harvesting System	9	2.25
Solid Waste Management	0.8	2.2
Environmental Monitoring	-	9
Green Area	1	0.25
Others (Energy saving devices, miscellaneous)	10	2.5
<b>TOTAL</b>	<b>29.8</b>	<b>16.45</b>

18. **Environment Consultant:** The Environment consultant **M/s Grass Roots Research & Creation India (P) Ltd., Noida, U.P.** along with the proponent made a presentation on the proposal before the Committee on dtd. 03.05.2023.

19. The SEAC in its meeting dated **03-05-2023** decided to take the decision on the proposal after receipt of the following from the proponent.

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

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- i) Land document and kism of land.
- ii) Tabulated form of parking space for residential, commercial and visitors.
- iii) Separate Entry and Exit gates for commercial and residential.
- iv) Certificate from DFO concerned that the site is not situated in Eco-Sensitive Zone of Chandaka- Dampara wildlife sanctuary.
- v) Detailed drainage plan, internal drainage details, drainage permission with supporting documents and NOC for drainage from concerned authority. Layout of drainage system and exact distance of project site to nearest drain and outfall of drain.
- vi) Possibility of segregation of grey water and black water and its usage for plantation and car washings thereby reduce the discharge amount of treated water.
- vii) Copy of approval for safety and structural stability from appropriate authority.
- viii) Status of NOC/permission letter from CGWA/WR Deptt, Govt. of Odisha respectively for drawl of ground water.
- ix) Copy of approval letter from concerned authority for widening of existing govt. road.
- x) Layout plan and width of road for movement of Fire Tender.
- xi) Copy of fire recommendations.
- xii) Site layout w.r.t location of DG set and Stack including calculations of stack height and its connection layout plan beyond the height of building.
- xiii) Detailed break-up of solar power to be generated, consumed, including capacity of PV cell capacity, connected devices and the percentage of solar energy added total power demand.

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

- i) Environmental settings of the project site.
- ii) Construction activity, if any started at the site.
- iii) Road connectivity to the project site.
- iv) Drainage network at the site.
- v) Discharge point for discharge of treated water and distance of the discharge point from the project site.
- vi) Any other issues including local issues.

**20. The proposed site was visited by Sub-Committee of SEAC on dated 27.06.2023 and following observations as mentioned below:**

- a. PP and Consultant were present along with other team members.
- b. It was informed that the site is adjacent to the road. However, there is a proposal of 200 ft road passing near the plot. In view of this the PP was asked to submit the copy of Revenue map or the BBSR greater Master Plan highlighting their plot (ownership of plot) and connectivity of existing road to their plot.
- c. The site was clean without any construction. There is a Nala at about 400 mts away from their land. Another apartment away from the PP land about 300

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- mts has laid drain pipes to the natural Nala as informed by the PP.
- d. PP informed that they have deposited fee for connecting Pipes of 2 ft. dia to the authority till the point of connection at the next Apartment as above for finally connecting to the natural Nala. PP was asked to submit document of support of above.
  - e. PP has also been asked to submit documentary support of existing drain pipes after about 300 mts from their land till the Nala (from the apartment to Nala)
  - f. Other documents asked during presentation to be submitted.

20. The proponent has furnished the compliance to the information / documents as sought by SEAC vide letter no - 379 (10)/ SEAC–(Misc)-28, dated 21.06.2023 and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
a)	Land document and kismam of land.	Land documents with details of kismam of Land are attached and Power of Attorney as <b>Annexure IA</b> and <b>Annexure IB</b> .	Land documents submitted.
b)	Tabulated form of parking space for residential, commercial and visitors.	Tabulated form for parking details with break-up of residential, commercial and visitors is enclosed as <b>Annexure II</b> .	complied
c)	Separate Entry and Exit gates for commercial and residential.	Layout of site with separate entry and exit for Residential and Commercial area is attached as <b>Annexure III</b> .	complied
d)	Certificate from DFO concerned that the site is not situated in Eco-Sensitive Zone of Chandaka- Dampara wildlife sanctuary.	Project site is 14.5 km away from Chandaka Dampara Wildlife Sanctuary, hence, DFO NOC is not applicable. Distance map is attached as <b>Annexure IV</b> .	complied
e)	Detailed drainage plan, internal drainage details, drainage permission with supporting documents and NOC for drainage from concerned authority. Layout of drainage system and exact distance of project site to nearest drain and outfall of drain.	Permission for laying drainage line has been obtained from Zila Parishad and first installment of EIDP fee has also been paid. Letter from Zila Parishad in this regard attached as <b>Annexure V(A)</b> , Revenue map showing proposed external drain is attached as <b>Annexure V(B)</b> NOC from Public Health Division to make own water supply and sewerage connection is attached as <b>Annexure V(C)</b> .	complied
f)	Possibility of segregation of grey water and black water and its usage for plantation and car washings thereby reduce the discharge amount of treated water.	We have proposed dual plumbing system to treat wastewater from kitchen and toilets in STP.  STP treated water will be reused for flushing and horticulture to reduce fresh water demand.	complied

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
g)	Copy of approval for safety and structural stability from appropriate authority.	Structural stability certificate is attached as <b>Annexure VI</b> .	complied
h)	Status of NOC/permission letter from CGWA/WR Deptt, Govt. of Odisha respectively for drawl of ground water.	CGWA NOC is attached as <b>Annexure VII</b> .	complied
i)	Copy of approval letter from concerned authority for widening of existing govt. road.	Map for proposed widening of road to 30.5 m has been obtained from the Office of Superintending Engineer of Bhubaneswar Division II and attached as <b>Annexure VIII</b> .	complied
j)	Layout plan and width of road for movement of Fire Tender.	Fire Tender Movement plan is attached as <b>Annexure IX</b> .	complied
k)	Copy of fire recommendations.	Fire recommendation is attached as <b>Annexure X</b> .	complied
l)	Site layout w.r.t location of DG set and Stack including calculations of stack height and its connection layout plan beyond the height of building.	DG set location is 13.5 m away from the building and stack height is 30 m. Plan for the same is attached as <b>Annexure XI</b> .	Stack height should be more than the building height.
m)	Detailed break-up of solar power to be generated, consumed, including capacity of PV cell capacity, connected devices and the percentage of solar energy added total power demand.	Detailed break-up of solar power to be generated, consumed, including capacity of PC cell capacity, connected devices and the percentage of solar added total power demand is attached as <b>Annexure XII</b> . Solar power generated from rooftop solar panel will be supply back to the state grid	complied

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

- i) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
- ii) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.
- iii) The proponent shall use solar energy at least to the tune of 5%of total power requirement as proposed.
- iv) The proponent shall obtain permission from concerned Fire Safety Authority.
- v) Trees located within the project area shall be transplanted to alongside the boundary green development area.

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- vi) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- vii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- viii) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

#### **ITEM NO. 08**

#### **PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S D.N. HOMES PVT. LTD. FOR RESIDENTIAL APARTMENTS PROJECT AT PLOT NO. 7254 (P), 7255(P), & 7640(P) OF HAL KHATA NO- 4689, OVER A BUILT - UP AREA 143723.71SQM. LOCATED AT MOUZA-GADAKANA, TAHASIL- BHUBANESWAR, DISTRICT- KHURDA OF SRI RATNAMALA SWAIN - EC**

1. This proposal is for Environmental Clearance of M/s D.N. Homes Pvt. Ltd. for Residential Apartments Project at Plot No. 7254 (P), 7255(P), & 7640(P) of Hal Khata no- 4689 over a built-up area 143723.71sqm. located at Mouza- Gadakana, Tahasil- Bhubaneswar, District - Khurda of Sri Ratnamala Swain.
2. **Category:** The project falls under category "B" or activity 8 (a)-Building & Construction Project under EIA Notification dated 14th September 2006 as amended from time to time.
3. M/s D.N. Homes Pvt. Ltd. proposes a Residential Apartment Project at Bhubaneswar, Odisha. The project site is located at Plot No. 7254 (P), 7255(P), & 7640(P) of Hal Khata no. - 4689 of Mouza - Gadakana, Tahasil- Bhubaneswar, District- Khurda, Odisha. The total plot area is 12,144.52 sqm. and total construction (Built-up) area is 1,43,723.71 sqm. The project will comprise of three numbers of Buildings. Maximum height of the building is 134.8 m.
4. The project comprises of following facilities: Residential Dwelling Units (414 nos.), Community Facilities and Swimming Pool.
5. **Location and connectivity:** The project site is located at Plot No. 7254 (P), 7255(P), & 7640(P) of Hal Khata no. - 4689 of Mouza- Gadakana, District- Khurda, Odisha. The geographical co-ordinates of project site are 20°18'57.32"N and 85°49'42.42"E. The Nearest Highway is NH-16 which is 2km in South direction from the project site, NH316 is 4.6km towards ESE direction, SH-60 is 9.8km towards East direction, & MCL Road site connecting road is adjacent to the project site in west direction. The nearest Railway Station is Gopalpur Mancheswar Railway Station is about 1.8 km (ENE) away from the project site. Biju Patnaik International Airport is at 6.5 km (S) from project site. The site falls under the zone III as per the Seismic Zone Map of India and is thus prone to Moderate damage risk zone.

#### **6. Statutory Clearances applied/Obtained -**

7. BDA approval for the proposed project is issued vide letter no 3226 dated 25.01.2023.
8. NOC for water supply and sewerage connection to the proposed project is issued by public health division, Bhubaneswar vide letter no 3530 dated 17.02.2023.
9. Fire safety recommendation has been issued vide Recommendation No RECOMM1204130052023001120 dated 17-03-2023.

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10. All other Statutory Clearances has been applied i.e., NOC from DFO, Bhubaneswar vide reference no DNH/GP/117/2023 dated 16.01.2023; permission for disposal of storm water and surplus treated water to the nearby drain vide reference no DNH/GP/118/2023 dated 17.01.2023.

11. **Land use details:** The total land area is 12,144.52m<sup>2</sup> (3.001 acres) and the total proposed built-up area is 1,43,723.71m<sup>2</sup>. There are three towers i.e., Wing A = 4BHK +MAID (Type 1 & 2), Wing B (4BHK +STUDY) (3BHK +STUDY) and Wing C = (4BHK) (3BHK + STUDY).

**Table of area statement**

S. No.	Description	Area (m <sup>2</sup> )
a)	Plot area	12,144.52
b)	Permissible Ground Coverage (@40% of plot area)	4857.8
c)	Proposed Ground Coverage (@ 33.82% of plot area)	4,107.5
d)	Permissible FAR (@6 of plot area)	72,867.12
e)	Total Proposed FAR (@5.99 of plot area)	72,861.93
f)	<b>Non-FAR Area</b>	<b>70,861.78</b>
	Superstructure Non-FAR Area	40,710.66
	Basement Area	30,151.12
g)	<b>Total Built-up area (5+6)</b>	<b>1,43,723.71</b>
h)	Required Parking Area as per bye laws (@30% of FAR area)	21,858.58
i)	Proposed Parking Area (@37.30% of FAR area)	27,176.51
j)	Proposed Green Area (@33.01% of the plot area)	4,008.90 [which includes 22% area (2671.80 sqm) for Green belt & 11.01 % area (1337.11sqm) for lawn]
k)	Height of the tallest building (m)	134.8
l)	Total Population	3178

12. **Water requirement:** During operational phase, total water requirement of the project is expected to be 384 KLD (254 KLD of fresh water and 130 KLD Recycled Water) as per the below table. Freshwater requirement will be met by ground water/bore wells.

S. No.	Description	Occupancy	Rate of water demand (lpcd)		Total Water Requirement (KLD)		
			Fresh	Flushing	Fresh	Flushing	Total
A.	<b>Domestic Water</b>						
	• Residents	2764	90	45	248.76	124.38	<b>373.14</b>
	• Staff	138	25	20	3.45	2.76	<b>6.21</b>
	• Visitors	276	5	10	1.38	2.76	<b>4.14</b>

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					254 KLD	130 KLD	384 KLD
<b>Total Domestic Water = 384 KLD</b>							
<b>B.</b>	<b>Swimming Pool</b>				<b>1 KLD</b>		
<b>C.</b>	<b>Horticulture</b>	4008.9m <sup>2</sup>	4 l/sqm		<b>16 KLD</b>		
<b>Grand Total (A+B+C) = 401 KLD</b>							

13. **Waste water generation & Management:** Estimated Wastewater generation is 334 KLD and the same will be treated in STP of 400 KLD capacity. 146 KLD of treated wastewater will be recycled and reused for flushing and horticulture. Surplus water of 115 KLD will be discharged to external sewers.

<b>Domestic Water Requirement</b>	<b>384 KLD</b>
• Fresh	254 KLD
• Flushing	130 KLD
<b>Waste water [@80% fresh + 100% flushing]</b>	<b>204 + 130= 334 KLD</b>
STP Capacity (20 % higher than waste water)	400 KLD

14. **Rainwater harvesting details:** Rainwater harvesting has been catered to and designed as per the guidelines of CGWA. Peak hourly rainfall has been considered as 160 mm/hr. The recharge pit of 4 m diameter and 4m depth is constructed for recharging the water. Inside the recharge pit, a recharge bore is constructed having adequate diameter and depth. The bottom of the recharge structure will be kept 5 m above this level. At the bottom of the recharge well, a filter media is provided to avoid choking of the recharge bore. Total of 10 rainwater harvesting pits are proposed for artificial ground water recharge. Taking the effective dia and depth of a Recharge pit 4 m and 4 m respectively, Volume of a single Recharge pit =  $\pi r^2h = 3.14 \times 2 \times 2 \times 4 = 50.24 \text{ m}^3$

15. **Power requirement:** The power supply will be through TP Central Odisha Distribution Limited (TPCODL). The total maximum demand is estimated as 3861 kVA. There is provision of 4 nos. of DG sets of total 4800 kVA (4 X 1200 kVA) capacity for power back up. Solar based lighting is proposed in the landscape area, signage, entry gates and boundary walls etc., and LED lighting to save about 10% of total power requirement.

16. **Parking Proposed:** Total area proposed for parking is 850 ECS / 27,176.51 m<sup>2</sup> [848 ECS (3 Basement parking - 27,140.51 m<sup>2</sup>) + 2 ECS (Surface parking - 36 m<sup>2</sup>)].

17. **Solid waste generation:** About 1504 kg/day solid wastes will be generated in the project. The biodegradable waste 601.6 kg/day will be processed in OWC and the non-biodegradable waste generated 902.4 kg/day will be handed over to authorized local vendors. Horticultural waste and STP sludge would be used as manure. Spent oil from DG sets will be disposed-off through approved recyclers.

S. No.	Description	Occupancy	Waste Generated (kg/capita/day)	Waste Generated (kg/day)
1.	<b>Domestic Solid Waste</b>			
	• Residents	2,764	0.5	1382
	• Staff (Maintenance, Club house,	138	0.25	35

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	Departmental Store)			
	• Visitors (Maintenance, Club house, Departmental Store)	276	0.15	41
2.	Horticultural Waste (0.99 acre)		@ 0.2 kg/acre/day	0.198
3.	STP Sludge		Wastewater x 0.35 x B.O.D difference/1000	45.59
<b>Total Solid Waste = 1504 kg/day</b>				

18. **Greenbelt:** Total green area measures 4,008.9 m<sup>2</sup> i.e., 33.01% of the plot area which will include Plantation area of 2,671.8 m<sup>2</sup> (22%) + Lawn area of 1,337.11m<sup>2</sup> (11.01%). Evergreen tall and ornamental trees have been proposed to be planted inside the premises. No. of trees required is 50 Nos. The plantation matrix adopted for the green belt development includes pit of 0.3 m x 0.3 m size with a spacing of 2 m x 2 m. Peripheral plantation comprising of medium height trees (7 m to 10 m) and shrubs (5 m height) are proposed for the green belt. Proposed Trees include *Anogeissus latifolia*, *Azadirachta indica*, *Dalbergia sissoo*, *Lagerstroemia speciosa*, *Melia azedarch*, *Mimusops Elengi*, *Salix tetrasperma* and flowering and ornamental plants have been proposed to be planted inside the premises.

19. **Project cost:** Total estimated cost of the project is INR 185.08 crores. The capital cost for environmental management of the proposed project is estimated to be Rs.70.4 lakhs and Rs. 20.6 lakhs per year will be required as annual recurring expenses for implementing the measures.

COMPONENT	CAPITAL COST (INR LAKH)	RECURRING COST (INR LAKH/YR)
Sewage Treatment Plant	40	4
Rain Water Harvesting System	15	3.75
Solid Waste Management	3	0.75
Environmental Monitoring	-	9
Green Area/ Landscape Area	2.4	0.6
Others (Energy saving devices, miscellaneous)	10	2.5
<b>Total</b>	<b>70.4</b>	<b>20.6</b>

20. **Environment Consultant:** The Environment consultant **M/s Grass Roots Research & Creation India (P) Ltd., Noida, U.P.** along with the proponent made a presentation on the proposal before the Committee on dtd. 03.05.2023.

21. The SEAC in its meeting dated **03-05-2023** recommended the following:

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

- i) Land schedule and kism of land.
- ii) Detailed drainage plan, internal drainage details, drainage permission with supporting documents and NOC for drainage from concerned authority.
- iii) Possibility of segregation of grey water and black water and its usage for plantation and car washings thereby reduce the discharge amount of treated water.
- iv) Copy of approval for safety and structural stability from appropriate authority.

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- v) Status of NOC/permission letter from CGWA/WR Deptt, Govt. of Odisha respectively for drawl of ground water.
- vi) NOC from Airport Authority of India.
- vii) Layout plan and width of road for movement of Fire Tender.
- viii) Copy of fire recommendations.
- ix) The public drainage pipe passing near to the proposed project is 6 inch which is inadequate to accommodate the disposal of proposed treated water. Letter/layout plan from BMC for widening the 6 inch discharge pipe as stated by PP during presentation.
- x) Site layout w.r.t location of DG set and Stack including calculations of stack height and its connection layout plan beyond the height of building.
- xi) Detailed break-up of solar power to be generated, consumed, including capacity of PV cell capacity, connected devices and the percentage of solar energy added total power demand.

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

- i) Environmental settings of the project site.
- ii) Construction activity, if any started at the site.
- iii) Road connectivity to the project site.
- iv) Drainage network at the site.
- v) Discharge point for discharge of treated water and distance of the discharge point from the project site.
- vi) Any other issues including local issues.

22. The proposed site was visited by Sub-Committee of SEAC on dated 27.06.2023 and following observations as mentioned below:

- a. PP and Consultant were present along with other team members. It was observed that the site is adjacent to the road from both sides.
- b. The site was clean without any construction.
- c. The road has drains from both sides for connecting treated water. The PP also explained the internal drain system and RWH plans.
- d. Other environment conditions are satisfactory.
- e. Documents asked during presentation needs to be submitted.
- f. It was mentioned in the draft proceedings that the public drainage pipe was 6 inches, as observed there is no such 6-inch pipe, rather one side drain is about 2ft. wider and the other side is even more.

23. The proponent has furnished the compliance to the information / documents as sought by SEAC vide letter no - 379 (10)/ SEAC--(Misc)-28, dated 21.06.2023 and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Land schedule and kism of land.	Land schedule and kism of land is attached as <b>Annexure-I</b> .	--

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
2.	Detailed drainage plan, internal drainage details, drainage permission with supporting documents and NOC for drainage from concerned authority.	Drainage plan and NOC for drainage from concerned authority is attached as <b>Annexure-II</b> .	complied
3.	Possibility of segregation of grey water and black water and its usage for plantation and car washings thereby reduce the discharge amount of treated water.	Noted and will comply.	To be put as specific condition.
4.	Copy of approval for safety and structural stability from appropriate authority.	Structure stability is attached as <b>Annexure- III</b> .	complied
5.	Status of NOC/permission letter from CGWAWR Deptt, Govt. of Odisha respectively for drawl of ground water.	We have applied for the NOC of CGWA. Status of CGWA NOC along with the application is enclosed as <b>Annexure- IV</b> .	-
6.	NOC from Airport Authority of India.	It is attached as <b>Annexure-V</b> .	complied
7.	Layout plan and width of road for movement of Fire Tender.	Firefighting plans are attached as <b>Annexure- VI</b> .	complied
8.	Copy of fire recommendations.	Fire safety recommendation is attached as <b>Annexure- VII</b> .	complied
9.	The public drainage pipe passing near to the proposed project is 6 inch which is inadequate to accommodate the disposal of proposed treated water. Letter/layout plan from BMC for widening the 6 inch discharge pipe as stated by PP during presentation.	As per the letter No. 405/SEAC – Misc.- 11 dated 23.06.2023; site visit of the sub-committee of SEAC held on 27.06.23. During the site visit, it is noticed that public drainage passing near to the proposed project is adequate to accommodate the proposed disposal of STP treated water.	-
10.	Site layout w.r.t location of DG set and Stack including calculations of stack height and its connection layout plan beyond the height of building.	Site layout plan along with calculations of stack height is attached as <b>Annexure-VIII</b> .	complied
11.	Detailed break-up of solar power to be generated, consumed, including capacity of PV cell capacity, connected devices and the percentage of solar energy added total power demand.	Detailed energy saving calculation along with solar layout plan is attached as <b>Annexure- IX</b> . Solar power generated from rooftop solar panel will be supply back to the state grid.	In solar calculation energy saving is added as a part of solar energy which makes the percentage to be 10%.

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

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- ix) 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.
- x) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.
- xi) The proponent shall use solar energy at least to the tune of 5%of total power requirement as proposed.
- xii) The proponent shall obtain permission from concerned Fire Safety Authority.
- xiii) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- xiv) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- xv) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- xvi) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

  
**Member Secretary, SEAC**

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**CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR FOR ENVIRONMENTAL CLEARANCE FOR (S+11) STORIED RESIDENTIAL BUILDING PLAN OVER AN BUILT UP AREA 23402.47 SQRM LOCATED AT-SAMBALPUR TOWN UNIT NO.-15, AINTHAPALI, THANA: SAMBALPUR NO-12, TAHASIL: SAMBALPUR NO.- 239, DISTRICT: SAMBALPUR FOR M/S BALAJI BUILDERS AND DEVELOPERS OF SRI GIRIDHAR AGARWAL – EC**

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**PART A - SPECIFIC CONDITIONS:**

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

**TOPOGRAPHY AND NATURAL DRAINAGE**

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 90KLD.
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 11 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 150 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, morram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, morram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution. Wet jet shall be provided for grinding and stone cutting. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
39. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules, 2016. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
40. **Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.**
41. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.

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

### **GREEN COVER**

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m<sup>2</sup> 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. 1870.88 sqm (20.06% of total plot area) shall be provided for green area development.

### **TOP SOIL PRESERVATION AND REUSE**

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

### **TRANSPORT**

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



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

### **ENVIRONMENT MANAGEMENT PLAN**

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

### **OTHERS**

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

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

## **PART B – GENERAL CONDITIONS**

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

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

11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO<sub>2</sub>, NO<sub>x</sub> (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 31<sup>st</sup> 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.

## **ANNEXURE-B**

### **CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR PROPOSED CONSTRUCTION OF NEW HOSTEL BLOCK BUILDING OF XIM UNIVERSITY BHUBANESWAR OVER A BUILT-UP AREA OF 1,70,773 SQM AT: MOUZA- NIJIGADA KURKI, HARIRAJPUR, DIST - PURI OF M/S. XIM UNIVERSITY BHUBANESWAR – TOR**

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- 1) Examine details of land use as per Master Plan and land use around 10 km radius of the project site. Analysis should be made based on latest satellite imagery for land use with raw images. Check on flood plain of any river.
- 2) Submit details of environmentally sensitive places, land acquisition status, rehabilitation of communities/ villages and present status of such activities.
- 3) Examine baseline environmental quality along with projected incremental load due to the project.
- 4) Environmental data to be considered in relation to the project development would be (a) land, (b) groundwater, (c) surface water, (d) air, (e) bio-diversity, (f) noise and vibrations, (g) socio economic and health.
- 5) Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area. Any obstruction of the same by the project
- 6) Submit the details of the trees to be felled for the project.
- 7) Submit the present land use and permission required for any conversion such as forest, agriculture etc.
- 8) Submit Roles and responsibility of the developer etc for compliance of environmental regulations under the provisions of EP Act.
- 9) Ground water classification as per the Central Ground Water Authority.
- 10) Examine the details of Source of water, water requirement, use of treated waste water and prepare a water balance chart.
- 11) Rain water harvesting proposals should be made with due safeguards for ground water quality. Maximize recycling of water and utilization of rain water. Examine details.
- 12) Examine soil characteristics and depth of ground water table for rainwater harvesting.
- 13) Examine details of solid waste generation treatment and its disposal.
- 14) Examine and submit details of use of solar energy and alternative source of energy to reduce the fossil energy consumption. Energy conservation and energy efficiency.
- 15) DG sets are likely to be used during construction and operational phase of the project. Emissions from DG sets must be taken into consideration while estimating the impacts on air environment. Examine and submit details.
- 16) Examine road/rail connectivity to the project site and impact on the traffic due to the proposed project. Present and future traffic and transport facilities for the region should be analysed with measures for preventing traffic congestion and providing

faster trouble free system to reach different destinations in the city.

- 17) A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.
- 18) Examine the details of transport of materials for construction which should include source and availability.
- 19) Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.
- 20) Submit details of a comprehensive Disaster Management Plan including emergency evacuation during natural and man-made disaster.
- 21) Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.
- 22) The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.
- 23) The prescribed TOR would be valid for a period of four years for submission of the EIA/EMP report.

**CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S INDIAN METALS FERRO ALLOYS FOR MAHAGIRI MINES (CHROMITE) FOR EXPANSION IN PRODUCTION CAPACITY OF CHROMITE ORE FROM 3 LAKH TPA TO 6 LAKH TPA OVER AN MINING LEASE AREA OF 73.777 HA. LOCATED AT VILLAGE- KALIAPANI, TAHASIL - SUKINDA, DISTRICT - JAJPUR, ODISHA OF SRI SANDEEP B. NARADE - EC.**

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**A. SPECIFIC CONDITIONS:**

- 1) Waste should be dumped on the earmarked sites within the mining lease area and no waste should be dumped outside the lease area.
- 2) The Project Proponent shall start the plantation and cover at least 50% of the proposed area under plantation in the next 5 years. The density of the plantation should not be less than 2500 saplings/Ha. The species to be selected for the plantation should be in consultation with local forest department or any other expert agency engaged for the same. The Project Proponent shall keep the record of saplings planted, survival rate, area covered under plantation, location etc. In addition to this gap filling needs to be done to as and when require for maintaining the density of plantation. The PP shall submit the drone images of area before and after the plantation. PP shall carry out pilot study for phytoremediation of hexavalent chromium through IMMT, CSIR, Bhubaneswar. The budget earmarked for the plantation shall be kept in separate bank account and audited annually. PP shall submit the detail such as photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation and outcome of the pilot study etc. to the Regional Office of MoEF&CC, Bhubaneswar and SEIAA, Odisha before 1st July of every year for the activities carried out during previous year.
- 3) Approval/permission of CGWA/SGWA shall be obtained before drawing ground water for the project activities. State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) till the project proponent obtains such permission.
- 4) The amount proposed under **Corporate Environment Responsibility (CER)** head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and details of implementation of CER activities along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, photographs & Geo-location of the infrastructures/facilities developed, etc. to the Regional Office of MoEF&CC, Bhubaneswar and SEIAA, Odisha before 1st July of every year for the activities carried out during previous year.
- 5) The amount (except occupational health) proposed under Environmental Management Plan (EMP) head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and detailed environment monitoring report along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, sampling reports, photographs & Geo-location of the infrastructures/facilities developed, details of persons engaged in Environment Management Cell etc. to the Regional Office of MoEF&CC, Bhubaneswar and SEIAA, Odisha before 1<sup>st</sup> July of every year for the

activities carried out during previous year.

- 6) The amount proposed under Occupational Health plan head should be kept in a separate bank account and should be audited annually. The PP should annually submit the audited statement and detailed environment monitoring report along with proof of activities viz. photographs (before & after with geo-location date & time), purchase documents, sampling reports, photographs & Geo-location of the infrastructures/facilities developed, details of persons engaged in Environment Management Cell etc. to the Regional Office of MoEF&CC, Bhubaneswar and SEIAA, Odisha before 1st July of every year for the activities carried out during previous year.
- 7) The Project Proponent shall set up an Environmental Management Cell comprises of persons having qualification and experience in the field of environment along with supporting staff. The details of the same needs to be submitted to the SEIAA, Odisha within 3 months of the grant of EC.
- 8) The project proponent shall give an undertaking by way of affidavit to comply with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors. before grant of ToR/ EC. The undertaking inter-alia include commitment of the PP not to repeat any such violation in future.
- 9) In case of violation of above undertaking, the ToR/Environmental Clearance shall be liable to be terminated forthwith.
- 10) The Environmental Clearance will not be operational till such time the Project Proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- 11) State Government concerned shall ensure that mining operation shall not commence till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of judgment of Hon'ble Supreme Court dated the 2nd August 2017 in Writ Petition (Civil) No. 114 of 2014 in the matter of Common Cause versus Union of India and Ors.
- 12) The Project Proponent shall implement the short term and long term measures proposed to be taken in order to get rid from the adversity of Cr (VI) contamination, needs to be implemented and status report of the same along with benefit occurred needs to be submitted to Regional Office of MoEF&CC, Bhubaneswar and SEIAA, Odisha annually.
- 13) The Project Proponent shall keep a record of each blasting viz. location, number of holes, delay assigned of each hole, explosive quantity of each hole, blasting pattern etc.

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

### **Statutory compliance**

- 14) This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, Common Cause Conditions as may be applicable.
- 15) The Project Proponent complies with all the statutory requirements and judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors before commencing the mining operations.
- 16) The State Government concerned shall ensure that mining operation shall not be commenced till the entire compensation levied, if any, for illegal mining paid by the Project Proponent through their respective Department of Mining & Geology in strict compliance of Judgment of Hon'ble Supreme Court dated 2nd August, 2017 in Writ Petition (Civil) No. 114 of 2014 in matter of Common Cause versus Union of India & Ors.
- 17) This Environmental Clearance shall become operational only after receiving formal NBWL Clearance from MoEF&CC subsequent to the recommendations of the Standing Committee of National Board for Wildlife, if applicable to the Project.
- 18) This Environmental Clearance shall become operational only after receiving formal Forest Clearance (FC) under the provision of Forest Conservation Act, 1980, if applicable to the Project.
- 19) Project Proponent (PP) shall obtain Consent to Operate after grant of EC and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the concerned State Pollution Control Board/Committee.
- 20) The Project Proponent shall adhere to the provision of the Mines Act, 1952, Mines and Mineral (Development & Regulation), Act, 2015 and rules & regulations made there under. PP shall adhere to various circulars issued by Directorate General Mines Safety (DGMS) and Indian Bureau of Mines from time to time.
- 21) The Project Proponent shall obtain consents from all the concerned land owners, before start of mining operations, as per the provisions of MMDR Act, 1957 and rules made there under in respect of lands which are not owned by it.
- 22) The Project Proponent shall follow the mitigation measures provided in MoEF&CC's Office Memorandum No. Z-11013/57/2014-1A. II (M), dated 29th October, 2014, titled "Impact of mining activities on Habitations-Issues related to the mining Projects wherein habitations and villages are the part of mine lease areas or Habitations and villages are surrounded by the mine lease area".
- 23) The Project Proponent shall obtain necessary prior permission of the competent authorities for drawl of requisite quantity of surface water and from CGWA for withdrawal of ground water for the project.
- 24) A copy of EC letter will be marked to concerned Panchayat / local NGO etc. if any, from whom suggestion / representation has been received while processing the proposal.



- 25) State Pollution Control Board/Committee shall be responsible for display of this EC letter at its Regional office, District Industries Centre and Collector's office/ Tehsildar's Office for 30 days.
- 26) The Project Authorities should widely advertise about the grant of this EC letter by printing the same in at least two local newspapers, one of which shall be in vernacular language of the concerned area. The advertisement shall be done within 7 days of the issue of the clearance letter mentioning that the instant project has been accorded EC and copy of the EC letter is available with the
- 27) State Pollution Control Board/Committee and web site of the Ministry of Environment, Forest and Climate Change ([www.parivesh.nic.in](http://www.parivesh.nic.in)). A copy of the advertisement may be forwarded to the concerned MoEF&CC Regional Office for compliance and record.
- 28) The Project Proponent shall inform the MoEF&CC for any change in ownership of the mining lease. In case there is any change in ownership or mining lease is transferred than mining operation shall only be carried out after transfer of EC as per provisions of the para 11 of EIA Notification, 2006 as amended from time to time.

#### **Air quality monitoring and preservation**

- 29) The Project Proponent shall install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for mining operations, of air pollution viz. PM 10, PM2.5, N02, CO and S02 etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/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.
- 30) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM10 and PM2.5 are evident such as haul road, loading and unloading point and transfer points. The Fugitive dust emissions from all sources shall be regularly controlled by installation of required equipments/ machineries and preventive maintenance. Use of suitable water-soluble chemical dust suppressing agents may be explored for better effectiveness of dust control system. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/ Central Pollution Control Board.

#### **Water quality monitoring and preservation**

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

- 32) Regular monitoring of the flow rate of the springs and perennial nallahs flowing in and around the mine lease shall be carried out and records maintain. The natural water bodies and or streams which are flowing in an around the village, should not be disturbed. The Water Table should be nurtured so as not to go down below the pre-mining period. In case of any water scarcity in the area, the Project Proponent has to provide water to the villagers for their use. A provision for regular monitoring of water table in open dug wall located in village should be incorporated to ascertain the impact of mining over ground water table. The Report on changes in Ground water level and quality shall be submitted on six- monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- 33) The Project Proponent shall regularly monitor and maintain records w.r.t. ground water level and quality in and around the mine lease by establishing a network of existing wells as well as new piezo-meter installations during the mining operation in consultation with Central Ground Water Authority/ State Ground Water Department. The Report on changes in Ground water level and quality shall be submitted on six-monthly basis to the Regional Office of the Ministry, CGWA and State Groundwater Department / State Pollution Control Board.
- 34) The Project Proponent shall undertake regular monitoring of natural water course/ water resources/ springs and perennial nallahs existing/ flowing in and around the mine lease and maintain its records. The project proponent shall undertake regular monitoring of water quality upstream and downstream of water bodies passing within and nearby/ adjacent to the mine lease and maintain its records. Sufficient number of gullies shall be provided at appropriate places within the lease for management of water. PP shall carryout regular monitoring w.r.t. pH and included the same in monitoring plan. The parameters to be monitored shall include their water quality vis-a-vis suitability for usage as per CPCB criteria and flow rate. It shall be ensured that no obstruction and/ or alteration be made to water bodies during mining operations without justification and prior approval of MoEF&CC. The monitoring of water courses/ bodies existing in lease area shall be carried out four times in a year viz. pre- monsoon (April-May), monsoon (August), post-monsoon (November) and winter (January) and the record of monitored data may be sent regularly to Ministry of Environment, Forest and Climate Change and its Regional Office, Central Ground Water Authority and Regional Director, Central Ground Water Board, State Pollution Control Board and Central Pollution Control Board. Clearly showing the trend analysis on six-monthly basis.
- 35) Quality of polluted water generated from mining operations which include Chemical Oxygen Demand (COD) in mines run-off; acid mine drainage and metal contamination in runoff shall be monitored along with Total Suspended Solids (TDS), Dissolved Oxygen (DO), pH and Total Suspended Solids (TSS). The monitored data shall be uploaded on the website of the company as well as displayed at the project site in public domain, on a display board, at a suitable location near the main gate of the Company. The circular No. J- 20012/1/2006-IA.II (M) dated 27.05.2009 issued by Ministry of Environment, Forest and Climate Change may also be referred in this regard.
- 36) Project Proponent shall plan, develop and implement rainwater harvesting measures on long term basis to augment ground water resources in the area in consultation with Central Ground Water Board/ State Groundwater Department. A report on amount of

water recharged needs to be submitted to Regional Office MoEF&CC annually.

- 37) Industrial waste water (workshop and waste water from the mine) should be properly collected and treated so as to conform to the notified standards prescribed from time to time. The standards shall be prescribed through Consent to Operate (CTO) issued by concerned State Pollution Control Board (SPCB). The workshop effluent shall be treated after its initial passage through Oil and grease trap.
- 38) The water balance/water auditing shall be carried out and measure for reducing the consumption of water shall be taken up and reported to the Regional Office of the MoEF&CC and State Pollution Control Board/Committee.

#### **Noise and vibration monitoring and prevention**

- 39) The peak particle velocity at 500m distance or within the nearest habitation, whichever is closer shall be monitored periodically as per applicable DGMS guidelines.
- 40) The illumination and sound at night at project sites disturb the villages in respect of both human and animal population. Consequent sleeping disorders and stress may affect the health in the villages located close to mining operations. Habitations have a right for darkness and minimal noise levels at night. PPs must ensure that the biological clock of the villages is not disturbed; by orienting the floodlights/ masks away from the villagers and keeping the noise levels well within the prescribed limits for day /night hours.
- 41) The Project Proponent shall take measures for control of noise levels below 85 dBA in the work environment. The workers engaged in operations of HEMM, etc. should be provided with ear plugs /muffs. All personnel including laborers working in dusty areas shall be provided with protective respiratory devices along with adequate training, awareness and information on safety and health aspects. The PP shall be held responsible in case it has been found that workers/ personals/ laborers are working without personal protective equipment.

#### **Mining plan**

- 42) The Project Proponent shall adhere to the working parameters of mining plan which was submitted at the time of EC appraisal wherein year-wise plan was mentioned for total excavation i.e. quantum of mineral, waste, over burden, inter burden and top soil etc.. No change in basic mining proposal like mining technology, total excavation, mineral & waste production, lease area and scope of working (viz. method of mining, overburden & dump management , O.B & dump mining, mineral transportation mode, ultimate depth of mining etc.) shall not be carried out without prior approval of the Ministry of Environment, Forest and Climate Change, which entail adverse environmental impacts, even if it is a part of approved mining plan modified after grant of EC or granted by State Govt., in the form to Short Term Permit (STP), Query license or any other name.
- 43) The Project Proponent shall get the Final Mine Closure Plan along with Financial Assurance approved from Indian Bureau of Mines/Department of Mining & Geology as required under the Provision of the MMDR Act, 1957 and Rules/ Guidelines made there under. A copy of approved final mine closure plan shall be submitted within 2 months of the approval of the same from the competent authority to the concerned Regional Office of the Ministry of Environment, Forest and Climate Change for record and

verification.

- 44) The land-use of the mine lease area at various stages of mining scheme as well as at the end-of-life shall be governed as per the approved Mining Plan. The excavation vis-a-vis backfilling in the mine lease area and corresponding afforestation to be raised in the reclaimed area shall be governed as per approved mining plan. PP shall ensure the monitoring and management of rehabilitated areas until the vegetation becomes self-sustaining. The compliance status shall be submitted half-yearly to the MoEF&CC and its concerned Regional Office.

#### **Land reclamation**

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

its adjoining area which shall also help in providing adequate retention time period thereby allowing proper settling of sediments/ silt material. The sedimentation pits/ sumps shall be constructed at the corners of the garland drains.

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

### **Transportation**

- 55) No Transportation of the minerals shall be allowed in case of roads passing through villages/ habitations. In such cases, PP shall construct a 'bypass' road for the purpose of transportation of the minerals leaving an adequate gap (say at least 200 meters) so that the adverse impact of sound and dust along with chances of accidents could be mitigated. All costs resulting from widening and strengthening of existing public road network shall be borne by the PP in consultation with nodal State Govt. Department. Transportation of minerals through road movement in case of existing village/ rural roads shall be allowed in consultation with nodal State Govt. Department only after required strengthening such that the carrying capacity of roads is increased to handle the traffic load.
- 56) The pollution due to transportation load on the environment will be effectively controlled and water sprinkling will also be done regularly. Vehicular emissions shall be kept under control and regularly monitored. Project should obtain Pollution Under Control (PUC) certificate for all the vehicles from authorized pollution testing centers.
- 57) The Main haulage road within the mine lease should be provided with a permanent water sprinkling arrangement for dust suppression. Other roads within the mine lease should be wetted regularly with tanker-mounted water sprinkling system. The other areas of dust generation like crushing zone, material transfer points, material yards etc. should invariably be provided with dust suppression arrangements. The air pollution control equipments like bag filters, vacuum suction hoods, dry fogging system etc. shall be installed at Crushers, belt- conveyors and other areas prone to air pollution. The belt conveyor should be fully covered to avoid generation of dust while transportation. PP shall take necessary measures to avoid generation of fugitive dust emissions.
- 58) Haulage road shall be developed and maintained perennially and perpetually by the proponent in construction with the concerned authority of the Govt. and to this effect, the proponent shall submit an undertaking in form of a legal affidavit
- 59) Traffic density study if not done by domain expert, then the expert to be ratified / authenticated by domain expert and submitted within a month time.

### **Green Belt**

- 60) The Project Proponent shall develop greenbelt in 7.5m wide safety zone all along the mine lease boundary as per the guidelines of CPCB in order to arrest pollution emanating from mining operations within the lease. The whole Green belt shall be developed within first 5 years starting from windward side of the active mining area. The development of greenbelt shall be governed as per the EC granted by the Ministry irrespective of the stipulation made in approved mine plan.
- 61) The Project Proponent shall carryout plantation/ afforestation in backfilled and reclaimed area of mining lease, around water body, along the roadsides, in community areas etc. by planting the native species in consultation with the State Forest Department/ Agriculture Department/ Rural development department/ Tribal Welfare Department/ Gram Panchayat such that only those species be selected which are of use to the local people. The CPCB guidelines in this respect shall also be adhered. The density of the trees should be around 2500 saplings per Hectare. Adequate budgetary provision shall be made for protection and care of trees.
- 62) The Project Proponent shall make necessary alternative arrangements for livestock feed by developing grazing land with a view to compensate those areas which are coming within the mine lease. The development of such grazing land shall be done in consultation with the State Government. In this regard, Project Proponent should essentially implement the directions of the Hon'ble Supreme Court with regard to acquisition of grazing land. The sparse trees on such grazing ground, which provide mid-day shelter from the scorching sun, should be scrupulously guarded/ protected against felling and plantation of such trees should be promoted.
- 63) The Project Proponent shall undertake all precautionary measures for conservation and protection of endangered flora and fauna and Schedule-1 species during mining operation. A Wildlife Conservation Plan shall be prepared for the same clearly delineating action to be taken for conservation of flora and fauna. The Plan shall be approved by Chief Wild Life Warden of the State Govt.
- 64) And implemented in consultation with the State Forest and Wildlife Department. A copy of Wildlife Conservation Plan and its implementation status (annual) shall be submitted to the Regional Office of the Ministry.

### **Human Health Issues**

- 65) The Project Proponent shall appoint an Occupational Health Specialist for Regular as well as Periodical medical examination of the workers engaged in the mining activities, as per the DGMS guidelines. The records shall be maintained properly. PP shall also carryout Occupational health check-ups in respect of workers which are having ailments like BP, diabetes, habitual smoking, etc. The check-ups shall be undertaken once in six months and necessary remedial/ preventive measures be taken. A status report on the same may be sent to MoEF&CC Regional Office and DGMS on half-yearly basis.
- 66) The Project Proponent must demonstrate commitment to work towards 'Zero Harm' from their mining activities and carry out Health Risk Assessment (HRA) for identification workplace hazards and assess their potential risks to health and determine appropriate control measures to protect the health and wellbeing of workers

- and nearby community. The proponent shall maintain accurate and systematic records of the HRA. The HRA for neighborhood has to focus on Public Health Problems like Malaria, Tuberculosis, HIV, Anaemia, Diarrhoea in children under five, respiratory infections due to bio mass cooking. The proponent shall also create awareness and educate the nearby community and workers for Sanitation, Personal Hygiene, Hand washing, not to defecate in open, Women Health and Hygiene (Providing Sanitary Napkins), hazard of tobacco and alcohol use. The Proponent shall carryout base line HRA for all the category of workers and thereafter every five years.
- 67) The Proponent shall carry out Occupational health surveillance which be a part of HRA and include Biological Monitoring where practical and feasible, and the tests and investigations relevant to the exposure (e.g. for Dust a X-Ray chest; For Noise Audiometric; for Lead Exposure Blood Lead, For Welders Full Ophthalmologic Assessment; for Manganese Miners a complete Neurological Assessment by a Certified Neurologist, and Manganese (Mn) Estimation in Blood; For Inorganic Chromium- Fortnightly skin inspection of hands and forearms by a responsible person. Except routine tests all tests would be carried out in a Lab accredited by NABH. Records of Health Surveillance must be kept for 30 years, including the results of and the records of Physical examination and tests. The record of exposure due to materials like Asbestos, Hard Rock Mining, Silica, Gold, Kaolin, Aluminium, Iron, Manganese, Chromium, Lead, Uranium need to be handed over to the Mining Department of the State in case the life of the mine is less than 30 years. It would be obligatory for the State Mines Departments to make arrangements for the safe and secure storage of the records including X-Ray. Only conventional X-Ray will be accepted for record purposes and not the digital one). X-Ray must meet ILO criteria (17 x14 inches and of good quality).
- 68) The Proponent shall maintained a record of performance indicators for workers which includes (a) there should not be a significant decline in their Body Mass Index and it should stay between 18.5 -24.9, (b) the Final Chest X-Ray compared with the base line X-Ray should not show any capacities ,(c) At the end of their leaving job there should be no Diminution in their Lung Functions Forced Expiratory Volume in one second (FEV1),Forced Vital Capacity (FVC), and the ratio) unless they are smokers which has to be adjusted, and the effect of age, (d) their hearing should not be affected. As a proof an Audiogram (first and last need to be presented), (e) they should not have developed any Persistent Back Pain, Neck Pain, and the movement of their Hip, Knee and other joints should have normal range of movement, (f) they should not have suffered loss of any body part. The record of the same should be submitted to the Regional Office, MoEF&CC annually along with details of the relief and compensation paid to workers having above indications.
- 69) The Project Proponent shall ensure that Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.
- 70) Project Proponent shall make provision for the housing for workers/labors or shall construct labor camps within/outside (company owned land) with necessary basic infrastructure/ facilities like fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, creche for kids etc. The housing may be provided in the form of temporary structures which can be removed after the completion of the project

related infrastructure. The domestic waste water should be treated with STP in order to avoid contamination of underground water.

- 71) The proponent shall implement the mitigative measures as suggested in the Study Report on effect of chromite mines to nearest human habitation.
- 72) Occupational health check-up shall be done by occupational health expert periodically for employees as well as nearby villagers.

#### **Corporate Environment Responsibility (CER)**

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

#### **Miscellaneous**

- 75) The Project Proponent shall prepare digital map (land use & land cover) of the entire lease area once in five years purpose of monitoring land use pattern and submit a report to concerned Regional Office of the MoEF&CC, Bhubaneswar and SEIAA, Odisha.
- 76) The Project Authorities should inform to the Regional Office regarding date of financial closures and final approval of the project by the concerned authorities and the date of start of land development work.
- 77) The project proponent shall install solar panel inside the mine to generate 5KW of power required for Administrative Building as proposed.
- 78) The Project Proponent shall submit six monthly compliance reports on the status of the implementation of the stipulated environmental safeguards to the MOEF&CC & its concerned Regional Office, Central Pollution Control Board and State Pollution Control Board.
- 79) A separate 'Environmental Management Cell' with suitable qualified manpower should be set-up under the control of a Senior Executive. The Senior Executive shall directly report to Head of the Organization. Adequate number of qualified Environmental Scientists and Mining Engineers shall be appointed and submit a report to RO, MoEF&CC, Bhubaneswar and SEIAA, Odisha.
- 80) The concerned Regional Office of the MoEF&CC shall randomly monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the MoEF&CC officer(s) by furnishing the requisite data / information / monitoring reports.
- 81) In pursuant to Ministry's O.M No 22-34/2018-IA.III dated 16.01.2020 to comply with the direction made by Hon'ble Supreme Court on 8.01.2020 in W.P. (Civil) No 114/2014 in



the matter Common Cause vs Union of India, the mining lease holder shall after ceasing mining operations, undertake re-grassing the mining area and any other area which may have been disturbed due to other mining activities and restore the land to a condition which is fit for growth of fodder, flora, fauna etc.

- 82) The SEIAA, Odisha or any other competent authority may alter/modify the above conditions or stipulate any further condition in the interest of environment protection.
- 83) Concealing factual data or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- 84) The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974. the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/ High Court and any other Court of Law relating to the subject matter.
- 85) 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.

**CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S AM SB INFRA PVT. LTD FOR COMMERCIAL CUM RESIDENTIAL APARTMENT BUILDING PROJECT OVER A BUILT-UP AREA 23844.03 SQ.M AT VILLAGE SUNDARPADA & EBARANGA, TEHSIL-BHUBANESWAR, DISTRICT-KHURDA OF SRI ASHIS MOHANTY- EC**

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**PART A - SPECIFIC CONDITIONS:**

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

**TOPOGRAPHY AND NATURAL DRAINAGE**

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 53 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 06 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 90 KLD. The treated effluent from STP shall be reused for flushing, landscaping, floor & car washing.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

### **ENERGY**

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

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

#### **AIR QUALITY AND NOISE**

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

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

### **GREEN COVER**

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m<sup>2</sup> 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. 1600sqm (20.36% of total plot area) shall be provided for green area development.

### **TOP SOIL PRESERVATION AND REUSE**

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

### **TRANSPORT**

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

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

### **ENVIRONMENT MANAGEMENT PLAN**

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

### **OTHERS**

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

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

## **PART B – GENERAL CONDITIONS**

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



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

11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO<sub>2</sub>, NO<sub>x</sub> (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 31<sup>st</sup> 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 D.N. HOMES PVT. LTD. FOR RESIDENTIAL APARTMENTS PROJECT AT PLOT NO. 7254 (P), 7255(P), & 7640(P) OF HAL KHATA NO- 4689, OVER A BUILT - UP AREA 143723.71SQM. LOCATED AT MOUZA- GADAKANA, TAHASIL- BHUBANESWAR, DISTRICT- KHURDA OF SRI RATNAMALA SWAIN - EC**

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**PART A - SPECIFIC CONDITIONS:**

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

**TOPOGRAPHY AND NATURAL DRAINAGE**

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 254 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 400 KLD. The treated effluent from STP shall be reused for flushing, landscaping, floor & car washing.
25. Excess treated water shall be discharged to the drain only after getting the permission from the concerned authority. The proponent shall renovate the existing drain to accommodate the discharge and maintain it perennially. To this effect the proponent has to give a legal affidavit before going for construction activity.
26. A certificate from the competent authority shall be obtained for discharging treated effluent/ untreated effluents into the Public sewer/disposal/drainage systems along with the final disposal point.
27. Separate large recharge pits shall be constructed inside the project area to accommodate the rainwater in case the housing project period and the CDP of the Govt. does not synchronize with reference to construction of road and drain.
28. No sewage or untreated effluent water would be discharged through storm water drains.
29. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the SEIAA, Odisha before the project is commissioned for operation. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
30. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.
31. The proponent shall obtain permission from the concerned authority to discharge the liquid waste to any drain i.e. the competent authority of the drain and "Nala" before commencement of any activity at the project site.

### **ENERGY**

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

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

#### **AIR QUALITY AND NOISE**

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

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

### **GREEN COVER**

44. No tree cutting/transplantation of existing trees has been proposed in the instant project. A minimum of 1 tree for every 80 m<sup>2</sup> 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. 4008.90sqm (33.01% of total plot area) shall be provided for green area development.

### **TOP SOIL PRESERVATION AND REUSE**

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

### **TRANSPORT**

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

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

### **ENVIRONMENT MANAGEMENT PLAN**

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

### **OTHERS**

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