

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL  
COMMITTEE, ODISHA HELD ON 01<sup>ST</sup> MAY 2024**

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The SEAC met on 01<sup>st</sup> May 2024 at 03:30 PM by Virtual mode (VC) through video conferencing in Google Meet under the Chairmanship of Sri Shashi Paul. The following members were present in the meeting.

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

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

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

**ITEM NO. 01**

**PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S PM GRANITE EXPORT PRIVATE LIMITED (BENEFICIATION DIVISION) MANGANESE ORE BENEFICIATION PLANT WITH 19800 TPA THROUGHPUT CAPACITY AT VILL: KOIDA, DIST: SUNDERGARH, ODISHA – EC**

1. This proposal is for Environmental Clearance of Manganese Ore beneficiation plant with 19800 TPA throughput capacity at Village Koida, Dist: Sundergarh, Odisha by M/s PM Granite Export Private Limited.
2. **Category:** This project falls under Category B2 (<20000 TPA) and Schedule 2 (b): Mineral beneficiation as per EIA Notification dated 14th Sept, 2006 and its amendments.
3. The project proponent and Environment consultant has requested to consider the proposal under Category B2.
4. **Location and connectivity:** The proposed beneficiation plant located over an area of 2.39 Acres in Koira Village, Plot No. 1553 Khata No.152 AJA, under Patita Kissam, of Koira Tahasil of Sundergarh District, Odisha. The area falls in toposheet number 73G/5. National Highway-215 is located at 1.5Km from the project site. The nearest railway station is

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Nayagarh Railway Station located at 18Km from the project site. Nearest river is Karo River at a distance of 7.5Km. Koida is the nearest town situated at a distance of 1.5Km. Nearest main road is Rajamunda-Rimuli Road which is situated at a distance of 1.7Km from the project site. There is no wild life sanctuary, corridor, National park, biosphere reserve located within 10Km buffer zone of the project site. Nearest Wildlife Sanctuary (Ushakothii Wildlife Sanctuary): 107Km.

5. Summary of products generated by the project:

Units	Products and By Products	Existing	Additional	After Expansion
TPA	Mn Ore	--	19800	19800

6. Mining Plan Details:

- From the Manganese Ore beneficiation will be maximum i.e. 5040 TPA (<20% Mn) will be generated.
- Through put capacity: 19800 TPA (15 TPH).
- Land use as per mining plan at the end of plan period and at conceptual stage:

Sl. No	Land use	Area (sq. meter)
1	Main plant, sedimentation tank and dewatering tank	1661.0
2	Tailing & Middling storage area	3637.0
3	Raw materials Storage area	200.0
4	Product storage area	908.0
5	Transformer	20.0
6	Electrical room	15.0
7	Office and rest room	15.0
8	Green area	3121.0
9	Toilets	10.0
10	Parking	85.5
<b>Total</b>		<b>9672.0</b>

- Waste generation:** The slurry from all the Dewatering Screens shall be discharged to Slurry Sump (C10/1). Slurry Sump shall be allowed to overflow and the overflow water shall be discharged to Jig Push Water Sump (C11/1) so that this water can be recycled back to the circuit as Process Water.
- Waste Management:** The dried tailing generated from the process will be 5810 TPA which will be stored over an area of 3637sq.m. The area demarcated will store the tailing upto 7 years. The dried tailing will be utilized for brick manufacturing in the latter stage. The middling generated from the process will be stored and used for mixing with the high-grade ore to produce requisite grade of manganese ore as per the requirement of the customers.
- Water requirement:** The makeup water requirement in the plant will be 0.08 KL/ Ton of ore. In the process total water requirement will be 10 KLD which include 5 KLD for beneficiation process and 5 KLD for drinking, dust suppression and plantation use. The water will be sourced from ground water and rain water harvesting pond.

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Environmental Scientist, SEAC

10. **Rain water Harvesting Details:** There is the proposal for construction of one rain water storage tanks of dimension 20m x 20m x5m within the plant premises to store the harvested quantity of rain water and for use. Total storage capacity of the tank will be 2000 Cu.m. The harvested rain water will be used for the plant operation, dust suppression and green belt development
11. **Power requirement:** The power requirement is estimated as 250 KVA and will be procured from OPTCL, Odisha. For Power backup 1 no. of D.G. set of capacity 250 KVA is available for emergency use.
12. **Greenbelt Development:** Plantation will be done over an area of 3121 Acres (33%) of the total area with 800 saplings around the plant boundary of every direction (Eastern, southern, Northern and Western Boundaries. An amount of Rs.2,00,000 has been allocated for the development of greenbelt and annual expenses for green belt maintenance will be Rs. 1,00,000.00.
13. **Total Employment:** A total of 38 nos. of people will be employed in the mine.
14. **Project Cost:** The cost of the project has been estimated to be Rs.8.27 crores. The capital cost proposed for the project will be 27 Lakhs and recurring cost will be 4.80 lakhs. The company proposes to invest Rs. 10 Lakhs for peripheral development activities.
15. **Environment Consultant:** The Environment consultant **M/s Kalyani Laboratories Pvt. Ltd., Bhubaneswar**, along with the proponent made a presentation on the proposal before the Committee.
16. The SEAC in its meeting held on dated **03-02-2024** 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
i.	Documents pertaining to vesting of EC and copies of CTE & CTO obtained for captive mines.	Copy of the vesting orders, EC, CTO attached for the mines i.e, Kanther-Koira Manganese ore mines over an area of 73.65 Ha of M/s P M Granite Export Private Limited <b>Annexure 1</b> .  The raw material will be sourced from this mine.	Transfer of EC, CTE,CTO,Lease Deed
ii.	Copy of forest clearance obtained.	There is no forest land involved in the project for beneficiation plant. Detail land document of the project attached <b>Annexure 2</b> . The Kanther – Koira Manganese ore mines have forest land and the forest clearance has been obtained for the mines. Copy of the Forest clearance letter for the mines is attached <b>Annexure 3</b> .	Copies submitted

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*J Nayak*  
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
iii.	A brief write-up as to why the proposal to be considered as category B2 project.	The project is the beneficiation plant involving physical beneficiation only and the process not involve handling and use of any toxic chemicals with throughput capacity of 19800 TPA i.e. <20,000 TPA. As per MoEF & CC OM No. J-13012/12/2013-IA-II (I) dated 24 <sup>th</sup> December 2013 the project is coming under B2 category. A request letter regarding this is attached for kind consideration of the Hon'ble committee under B2 category. <b>Annexure 4.</b>	complied
iv.	There should be provision of filter press; clarifier and the treated water should be reused.	There is the provision for use of filter press, clarified and complete utilization of the treated water. Detail of the water recirculation in the process is attached. <b>Annexure 5.</b>	complied
v.	Explore the possibilities to utilize the tailings further.	The tailing management for the project is being prepared taking into consideration of maximum tailing generation i.e., 5810 TPA. The dried tailing generated from the process will be 5810 TPA which will be stores over an area of 3915 sq.m. The area tailing yard will made concrete and provided with 2m height retaining wall and garland drain around the tailing yard. The dried tailing will be utilized for brick manufacturing.	complied
vi.	The PP should maintain the zero liquid discharge.	Details of water requirement and ZLD attached <b>Annexure 5.</b>	complied
vii.	Brief note on Surface Run-off Management Plan.	Brief note on Surface Run-off Management Plan is attached <b>Annexure 6.</b>	complied

Considering the information furnished and the presentation made by the consultant, M/s Kalyani Laboratories Pvt. Ltd., Bhubaneswar, Odisha along with the project proponent, The SEAC considered the project under B2 category with throughput <20,000TPA as per MOEF&CC, Govt. of India OM No. J/13012/12/2013-IA-II(I), dated 24.12.2013 and 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 waste water that will be generated from the tailings shall be treated in ETP following appropriate standard technical procedure.

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*J Nayak*  
Environmental Scientist, SEAC

- ii) The PP shall obtain NOC to use the Panchayat roads from the concerned BDO for transportation of both input materials and finished products including the responsibility of maintaining the road if damaged by such transportation.
- iii) As the PP will implement the dry stacking of tailings, there will be trickling down of effluent. Also during rain, the leached effluent from stack will trickling down. PP shall ensure collection of these effluents for treatment with routine analysis to ensure satisfying the standard before it is discharged. All data shall be kept for periodical compliances.
- iv) The PP shall maintain ZLD.

**ITEM NO. 02**

**PROPOSAL FOR AMENDMENT OF ENVIRONMENTAL CLEARANCE FOR EXPANSION OF IRON ORE BENEFICIATION PLANT FROM 10.7 MTPA (THROUGHPUT) CAPACITY TO 16.0 MTPA (THROUGHPUT), RELOCATION OF TAILING DAM AT VILLAGE - SANKARI, GRAM PANCHAYAT - PHULJHAR, DIST. - KEONJHAR, LAYING OF TAILING PIPELINE AND RETURN WATER PIPELINE FROM BENEFICIATION PLANT TO TAILING DAM AND LAYING OF WATER PIPELINE AND SLURRY PIPELINE FROM BENEFICIATION PLANT TO GHORABURHANI - SAGASAH I IRON ORE BLOCK - EC**

1. This proposal is for amendment of Environmental Clearance for Expansion of Iron Ore Beneficiation Plant from 10.7 MTPA (Throughput) Capacity to 16.0 MTPA (Throughput), Relocation of Tailing Dam at Village - Sankari, Gram Panchayat - Phuljhar, Dist. - Keonjhar, Laying of Tailing Pipeline and Return Water Pipeline from Beneficiation Plant to Tailing Dam and Laying of Water Pipeline and Slurry Pipeline from Beneficiation Plant to Ghoraburhani - Sagasahi Iron Ore Block of M/s. Arcelor Mittal Nippon Steel India Ltd.
2. **Category:** The proposed project activity is listed at S. No. 2 (b) - Mineral Beneficiation under Category "B1" of the schedule as per the EIA Notification, 2006.
3. **Location and Connectivity:** The proposed project is located at Plot no- 67 at Village- Dabuna, Tahasil- Barbil, District - Kendujhar. The Project Site is a part of the Survey of India Toposheet No. F45N5. The geo-coordinates of the project site is - Latitude: 21<sup>o</sup> 51'8.46" N to 21<sup>o</sup> 50'53.169" N & Longitude: 85<sup>o</sup> 24'21.442" E to 85<sup>o</sup> 25'5.728" E. The kissam of land is Industrial. Nearest Habitation is Dabuna. Nearest Highway is NH 215, 15 km E from the Beneficiation Plant & 12 km E from Tailing Pond. Nearest Airport is Biju Patnaik International Airport - 182 km. Nearest water body is Baitarani River, 9 km away from the Beneficiation Plant. Nearest Reserve Forest is Nayagarh Forest, 9.61 km SE of Plant.

Sl. No.	Statutory Clearances obtained	Date
1	Environmental Clearance (EC) (J-11015/876/2007-IA.II (M)) granted by MoEF&CC, New Delhi, for the Iron ore Beneficiation plant of 10.7 MTPA (throughout) capacity.	04 <sup>th</sup> May 2009
2	Amendment of EC approved for "Road Transport" (by MoEF&CC, New Delhi)	22 <sup>nd</sup> May

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*J Nayak*  
Environmental Scientist, SEAC

		2013
3	TOR obtained for the expansion of Beneficiation Plant from 10.7 MTPA (throughput) to 16 MTPA (throughput) from MoEF&CC, New Delhi.	20 <sup>th</sup> July 2017
4	CTE obtained from SPCB, Odisha	17 <sup>th</sup> July 2019
5	Amendment of ToR was approved for "Relocation of Tailing Dam" (by MoEF&CC, New Delhi)	23 <sup>rd</sup> Jan 2020
6	ToR Validity Extension (COVID Relaxation), up to 19 <sup>th</sup> July 2022 by MoEF&CC, New Delhi	20 <sup>th</sup> Oct 2020
7	Public Hearing was held	12 <sup>th</sup> Apr 2021
8	Form 2 submitted, for grant of Environmental Clearance to SEIAA, Odisha (as per MoEF&CC Notification S.O. 1886 (E), dtd. 20 <sup>th</sup> Apr 2022)	13 <sup>th</sup> July 2021
9	EC for the Dabuna Expansion Project obtained on from SEIAA: ( EC Identification No:EC23B007OR110978 & File No.: 78693/31-IND/07-2022)	14 <sup>th</sup> Mar 2023
10	EC Amendment Application submitted	28 <sup>th</sup> Dec 2023

4. Land Details of the Project:

Sl. No	Land Description	Beneficiation plant	Truck Unloading Station	Tailing Dam	Tailing and Return Water pipelines from Beneficiation plant to tailing Dam	Water and Slurry pipelines from Beneficiation plant to Ghoraburhan i Sagasahi iron ore block
1	Govt. Land (Non – Forest) in ha.	Nil	Nil	127.56	2.929	7.420
2	Private Land in ha.	34.40	1.92	2.67	6.362	Nil
3	Forest Land in ha.	Nil	Nil	Nil	12.728	16.466
<b>Total Land in ha.</b>		<b>34.40</b>	<b>1.92</b>	<b>130.23</b>	<b>22.019</b>	<b>23.886</b>

5. The land for tailing dam has been acquired by AM/NS India. The construction of Tailing Dam is under progress.

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6. Stage – I Forest Diversion Clearance for "pipelines" has been obtained for the entire 29.194 ha Forest Land vide Letter No. 5-ORC481/2021-BHU, dated 28<sup>th</sup> Dec 2021 , and Letter No. 5-ORC496/2022-BHU, dated 25<sup>th</sup> Jan 2022.
7. Reason for which Amendment of Environmental Clearance application had been submitted:
- i) AM/NS India obtained the Environment Clearance (EC) vide EC Identification No. EC23B007OR110978 and File No. 78693/31-IND/07-2022, issued by the State Environment Impact Assessment Authority (SEIAA), Odisha under MoEF&CC, New Delhi, on 14th Mar 2023.
  - ii) In the EC, SEIAA stipulated one specific condition in relation to transportation of iron ore from Sagasahi mines to Dabuna Beneficiation Plant, is given as under.
  - iii) Specific Condition (A), 1: The transportation of ore from Ghorabhurani – Sagasahi Iron Ore to Dabuna Beneficiation Plant by road is allowed only for 3 years i.e., up to 19.08.2023 vide MoEF&CC, Gol, EC Letter F. No. J-11015/192/2016IA. III(M), dated 20.08.2020. No more road transportation is allowed after 19.08.2023 without permission of the MoEF&CC."
  - iv) As per the above condition, we are allowed to transfer the raw materials up to 19th Aug 2023, as SEIAA has considered the Ghorabhurani – Sagasahi Iron Ore Mines EC, NEERI's Conditions regarding transportation of iron ore.
  - v) The EC condition of our Sagasahi Mines states that:
    - a) Specific Condition (A), 2: Till the construction of beneficiation plant in the mine lease area, the transportation of ore from mine to Dabuna Beneficiation plant by road is allowed only for three years. No more road transportation is allowed after 3 years without permission of the Ministry. From 4th year onwards, the ore should be transported only through proposed slurry pipeline or as per the guidelines of CSIR-NEERI's recommendation. PP shall inform Ministry for any deviation in the proposed mode of transport of minerals in case the timeline is not complied with.
    - b) Although the EC of the Sagasahi Iron Ore Mines of AM/NS India Ltd. was obtained on 28th May 2020, but the mining operation had commenced on 09th Sep 2021 and the dispatches from Sagasahi Mines are commenced from 29th Nov 2021 (the starting date of mining operation as well as commencement has been communicated to DGMS and IBM during that time).
  - vi) If we consider the date of mining operation of Sagasahi Mines, after which it will be consider three years for road transportation. Then we should be allowed for road transportation till 08th Sep 2024.
  - vii) In compliance to the EC, Specific Condition A, (2), as per the guideline, half yearly compliance reports [(i) Oct' 2022 to Mar' 2023, and (ii) Apr' 2023 to Sept' 2023] has been submitted to SEIAA, Odisha as well as IRO, MoEFCC, Bhubaneswar, Odisha (through mail) updating/mentioning the status.

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**8. Current Status of project and reason for which delay has taken place as per submission of PP:**

- a) The Beneficiation plant at Sagasahi Mines has been under construction since August 2022 and 70% construction has been completed as on date.
- b) Simultaneously, the design and laying of slurry pipeline from Sagasahi Mines to Dabuna Beneficiation Plant has started. The reason behind the delay in completion of the project are various cross-country pipeline land issues & ROW issues found during the execution process.
- c) In addition to this, experiencing law & order issues in the execution process while laying slurry pipeline in Keonjhar district of Odisha. The same has been brought to the notice of Government authorities at highest level.
- d) In view of the above, delay in execution of laying of slurry pipeline from Sagasahi Mines to Dabuna, EC amendment application has been submitted for the extension of the road transportation period from Sagasahi Mines.

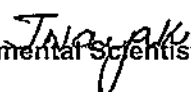
9. The Project Proponent has requested for allowing of transportation of ore via road to the Dabuna Beneficiation plant till 30<sup>th</sup> Sep 2025 in compliance to the Specific Condition No. A (1), stipulated in the EC of Dabuna Expansion Project. No more road transportation is allowed after 30.09.2025 without permission of the MoEF&CC.

10. Environment Consultant: The proponent made a presentation on the proposal before the Committee.

11. The SEAC in its meeting held on dated 03-02-2024 SEAC 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
1.	The compliance status to Previous EC conditions.	The compliance to the Environment Clearance (EC) granted to M/s Arcelor Mittal Nippon Steel India Limited (AM/NS India), vide EC Identification No. EC23B007OR110978, File No. 78693/31-IND /07-2022, issued by SEIAA on 14.03.2023 is submitted herewith as Annexure -1. We are regularly submitting the half yearly compliance report to SEIAA, OSPCB, & IRO, MoEF&CC, Bhubaneswar, Odisha, and the last compliance was submitted on 29.11.2023 vide Letter No. AMNS/DBN/HSE/23-24/10 (the mail copy attached herewith as Annexure - 2).
2.	A comprehensive note on the current status of the project incorporating progress of work, water balance, transportation	This proposal is the amendment of the specific condition stipulated in the EC of Dabuna Expansion Project, issued by SEIAA on 14.03.2023. The compliance of the specific condition is interlinked with various activities as mentioned below. a) Construction of Beneficiation Plant at Sagasahi Mines. b) Laying of Slurry pipeline from Beneficiation Plant at Sagasahi Mines to Dabuna Beneficiation Plant. c) Laying of Tailing pipeline from Dabuna Beneficiation Plant to Tailing Dam at Sankari. d) (Construction of Tailing Dam at Sankari. The status/progress of individual projects is given below.

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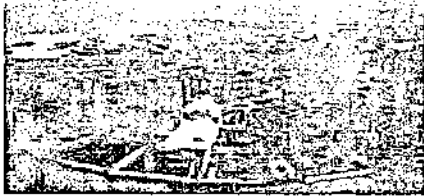

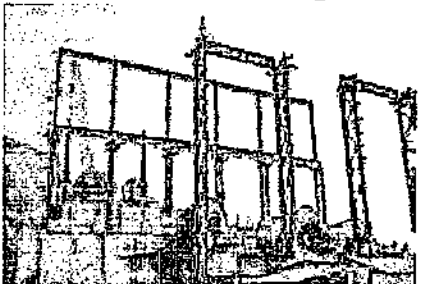
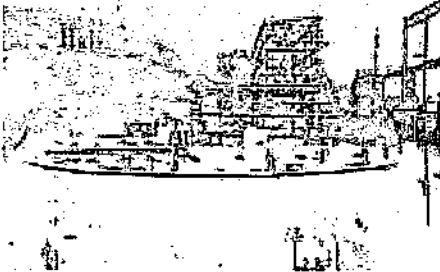
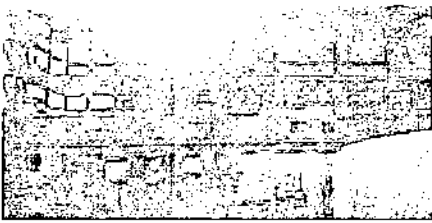

  
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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent																		
	of slurry, water recovery, forest clearance, estimated investment and remaining balance work.	<p><b>a) Construction of Beneficiation Plant at Sagasahi Mines:</b>  <b>Project Brief Detail:</b> The project is a standalone plant of 6 MTPA concentrate beneficiation unit at Mines head based on wet grinding system for the grinding circuit. The proposed site is located within the Sagasahi Mines lease area.</p> <p><b>Physical Progress of the Project as on date:</b></p> <table border="1"> <tr> <td><b>Engineering</b></td> <td> <ul style="list-style-type: none"> <li>o Engineering for Beneficiation Plant facilities: <b>99 % completed.</b></li> <li>o Balance of plant Basic Engineering: <b>100% completed.</b></li> <li>o Detail Engineering: <b>98% completed.</b></li> </ul> </td> </tr> <tr> <td><b>Procurement</b></td> <td> <ul style="list-style-type: none"> <li>o Material delivery for long lead items like Ball Mills, Scrubbers, Screen, Thickeners, Agitators, Concentrate storage Tanks, Slurry Pumps etc. has already been completed and remaining are under manufacturing.</li> <li>o The Work Order for Mainline Centrifugal pumps has been placed.</li> <li>o All Service orders placed against construction activities and partner on boarded at site and construction work is in progress.</li> <li>o Supply of Building Structure and technology structure already completed.</li> </ul> </td> </tr> <tr> <td><b>Construction</b></td> <td> <ul style="list-style-type: none"> <li>o Earthwork cutting and filling work completed.</li> <li>o 78% of civil works of plant facilities has been completed. Building structure, Equipments &amp; Technological structure erection is in progress.</li> <li>o Soil stabilization work is in progress.</li> </ul> </td> </tr> </table> <p><b>Forest Clearance Status:</b> No additional land including Forest land required for this Beneficiation Plant. The project is proposed within the Sagasahi Mines Lease Area as per the EC granted for Sagasahi Mines.</p> <p><b>Estimated Investment &amp; Remaining balance work:</b></p> <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Name of the Project</th> <th>Project Cost (in Cr.)</th> <th>Invested as on Date (in Cr.)</th> <th>To be Invested (in Cr.)</th> <th>Project Completion Date</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Beneficiation Plant, at Sagasahi Mines Lease Area</td> <td>918.0</td> <td>306.0</td> <td>612.0</td> <td>31<sup>st</sup> July 2019</td> </tr> </tbody> </table> <p><b>Project Site Photographs:</b></p>	<b>Engineering</b>	<ul style="list-style-type: none"> <li>o Engineering for Beneficiation Plant facilities: <b>99 % completed.</b></li> <li>o Balance of plant Basic Engineering: <b>100% completed.</b></li> <li>o Detail Engineering: <b>98% completed.</b></li> </ul>	<b>Procurement</b>	<ul style="list-style-type: none"> <li>o Material delivery for long lead items like Ball Mills, Scrubbers, Screen, Thickeners, Agitators, Concentrate storage Tanks, Slurry Pumps etc. has already been completed and remaining are under manufacturing.</li> <li>o The Work Order for Mainline Centrifugal pumps has been placed.</li> <li>o All Service orders placed against construction activities and partner on boarded at site and construction work is in progress.</li> <li>o Supply of Building Structure and technology structure already completed.</li> </ul>	<b>Construction</b>	<ul style="list-style-type: none"> <li>o Earthwork cutting and filling work completed.</li> <li>o 78% of civil works of plant facilities has been completed. Building structure, Equipments &amp; Technological structure erection is in progress.</li> <li>o Soil stabilization work is in progress.</li> </ul>	Sl. No.	Name of the Project	Project Cost (in Cr.)	Invested as on Date (in Cr.)	To be Invested (in Cr.)	Project Completion Date	1.	Beneficiation Plant, at Sagasahi Mines Lease Area	918.0	306.0	612.0	31 <sup>st</sup> July 2019
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<b>Procurement</b>	<ul style="list-style-type: none"> <li>o Material delivery for long lead items like Ball Mills, Scrubbers, Screen, Thickeners, Agitators, Concentrate storage Tanks, Slurry Pumps etc. has already been completed and remaining are under manufacturing.</li> <li>o The Work Order for Mainline Centrifugal pumps has been placed.</li> <li>o All Service orders placed against construction activities and partner on boarded at site and construction work is in progress.</li> <li>o Supply of Building Structure and technology structure already completed.</li> </ul>																			
<b>Construction</b>	<ul style="list-style-type: none"> <li>o Earthwork cutting and filling work completed.</li> <li>o 78% of civil works of plant facilities has been completed. Building structure, Equipments &amp; Technological structure erection is in progress.</li> <li>o Soil stabilization work is in progress.</li> </ul>																			
Sl. No.	Name of the Project	Project Cost (in Cr.)	Invested as on Date (in Cr.)	To be Invested (in Cr.)	Project Completion Date															
1.	Beneficiation Plant, at Sagasahi Mines Lease Area	918.0	306.0	612.0	31 <sup>st</sup> July 2019															

Proceedings of the SEAC meeting held on 01.05.2024 (Old proposals – compliance received)

*J Nayak*  
Environmental Scientist, SEAC

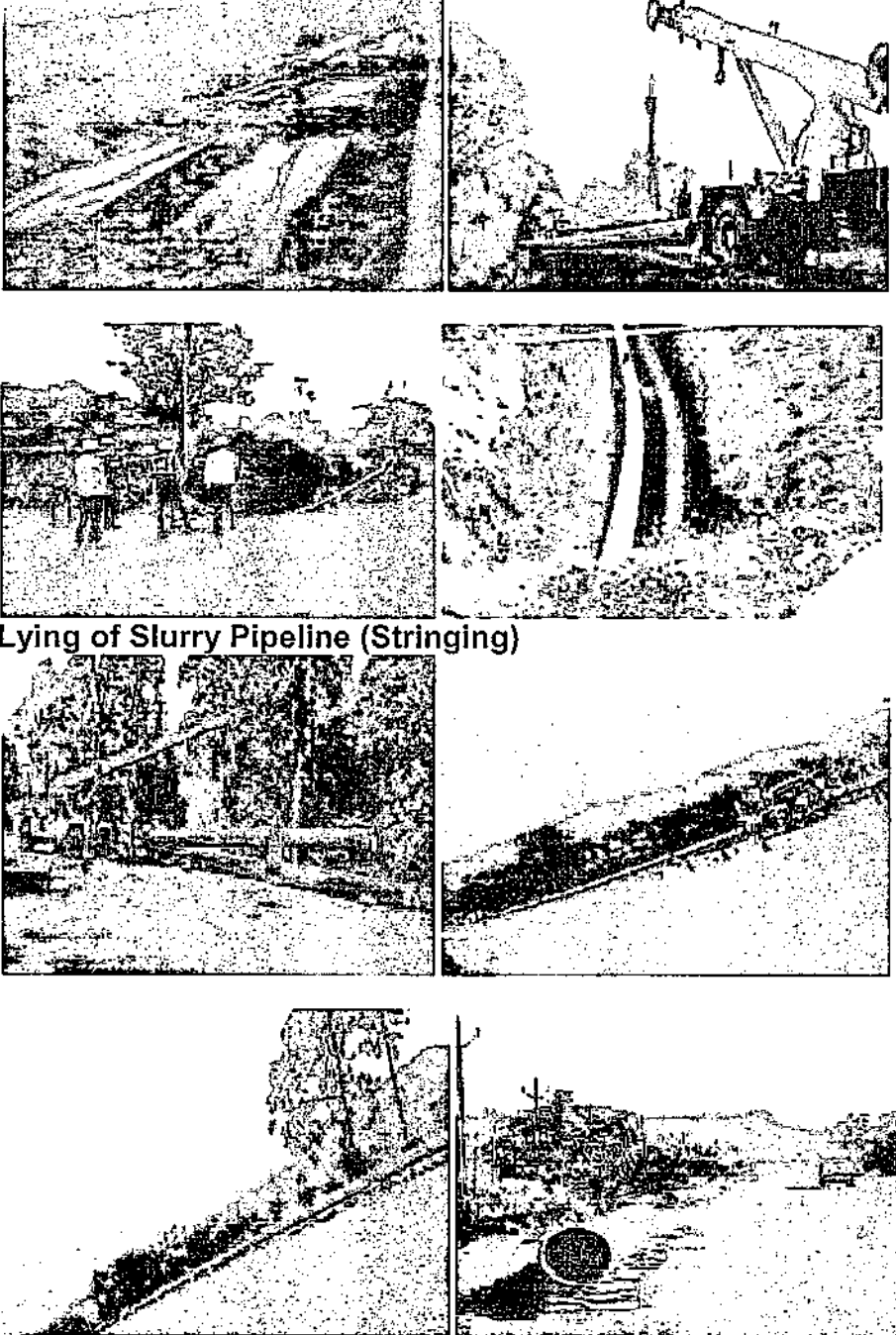
Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent					
		 <p>Tailing Thickener</p>  <p>Feed Bin Building</p>  <p>Process Building</p>	 <p>Slurry Tank</p>  <p>MRSS Building</p>  <p>Pump House ECR</p>				
<p>b) Laying of Slurry pipeline from Beneficiation Plant at Sagasahi Mines to Dabuna Beneficiation Plant.</p>		<p><b>Project Brief Detail:</b> The slurry pipeline is proposed to transport the slurry from Sagasahi Beneficiation Plant to Dabuna Beneficiation Plant. The total length of the slurry pipeline is 27.88 km with 20" diameter.</p>					
<p><b>Physical Progress of the Project as on date:</b></p>		<table border="1"> <tr> <td>Engineering</td> <td> <ul style="list-style-type: none"> <li>○ Engineering for Pipe Laying Work: <b>100% completed.</b></li> <li>○ Balance of plant Basic Engineering: <b>100% completed.</b></li> <li>○ Detail Engineering: <b>79% completed.</b></li> </ul> </td> </tr> <tr> <td>Procurement</td> <td> <ul style="list-style-type: none"> <li>○ The mainline pipe for slurry and return water line already reached at site.</li> <li>○ Supply order for Severe Service Ball Valves order placed and manufacturing work in</li> </ul> </td> </tr> </table>		Engineering	<ul style="list-style-type: none"> <li>○ Engineering for Pipe Laying Work: <b>100% completed.</b></li> <li>○ Balance of plant Basic Engineering: <b>100% completed.</b></li> <li>○ Detail Engineering: <b>79% completed.</b></li> </ul>	Procurement	<ul style="list-style-type: none"> <li>○ The mainline pipe for slurry and return water line already reached at site.</li> <li>○ Supply order for Severe Service Ball Valves order placed and manufacturing work in</li> </ul>
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Proceedings of the SEAC meeting held on 01.05.2024 (Old proposals – compliance received)

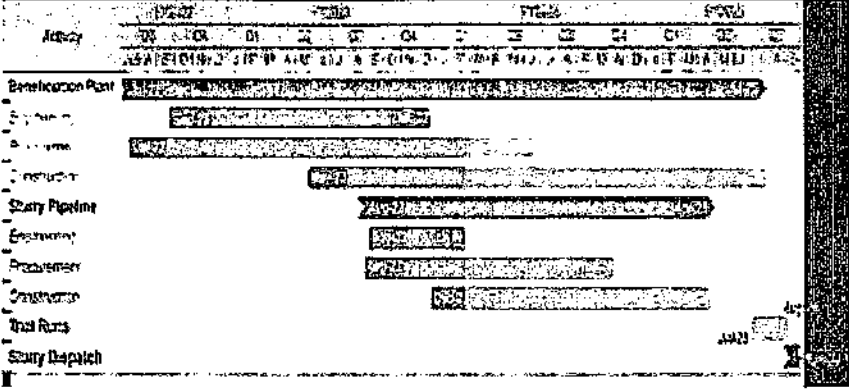
Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent															
			<ul style="list-style-type: none"> <li>progress.</li> <li>o Mainline Centrifugal pumps order placed.</li> <li>o All Service order placed against construction activities.</li> </ul>														
		<b>Construction</b>	<ul style="list-style-type: none"> <li>o Preliminary work Route survey &amp; Soil investigation Work completed.</li> <li>o Slurry Pipeline (20") - Stringing: 22.8 / 27.88 kms and Lowering: 6.77 /27.88 kms completed.</li> </ul>														
		<b>Forest Clearance Status:</b>															
		<p>The Forest Diversion Clearance (Stage – I/ In-Principal approval)) has been obtained for Slurry pipeline from Sagasahi Beneficiation Plant to Dabuna Beneficiation Plant for 16.463 ha (12.649 ha in Keonjhar Division &amp; 3.814 ha in Bonai Division), vide Letter No. 5-ORC496/2022-BHU, and attached as <b>Annexure - 3</b>. As on date, CA land has been transferred in favour of Forest, Environment, &amp; Climate Change Department, Govt. of Odisha for raising of Compensatory Afforestation and the notification published by Revenue Department vide Letter No. FE-DIV-FLD-0170-2021 – {10F- (Cons)-106/2021} -24350/FE&amp;CC, ON 22.11.2023 (notification attached as <b>Annexure - 4</b>). The re-tree enumeration work is in progress, accordingly Stage – II compliance will be submitted to PCCF, Nodal followed by DFO and RCCF. Working permission is yet to be received from DFO to initiate the pipeline work. Where the ROW is concerned, the agreement with Govt. for Sundargarh dist. has been completed, but the agreement for Keonjhar dist. is under progress.</p>															
		<b>Estimated Investment &amp; Remaining balance work:</b>															
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sl. No.</th> <th>Name of the Project</th> <th>Project Cost (in Cr.)</th> <th>Invested as on Date (in Cr.)</th> <th>To be Invested (in Cr.)</th> <th>Project Completion Date</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Slurry Pipeline from Sagasahi Mines to Dabuna Beneficiation Plant</td> <td>272.0</td> <td>190.0</td> <td>82.0</td> <td>30<sup>th</sup> Sept' 2025</td> </tr> </tbody> </table>				Sl. No.	Name of the Project	Project Cost (in Cr.)	Invested as on Date (in Cr.)	To be Invested (in Cr.)	Project Completion Date	1.	Slurry Pipeline from Sagasahi Mines to Dabuna Beneficiation Plant	272.0	190.0	82.0	30 <sup>th</sup> Sept' 2025
Sl. No.	Name of the Project	Project Cost (in Cr.)	Invested as on Date (in Cr.)	To be Invested (in Cr.)	Project Completion Date												
1.	Slurry Pipeline from Sagasahi Mines to Dabuna Beneficiation Plant	272.0	190.0	82.0	30 <sup>th</sup> Sept' 2025												
		<p><b>Project Site Photographs:</b>  <b>Lying of Slurry Pipeline (Lowering):</b></p>															

Proceedings of the SEAC meeting held on 01.05.2024 (Old proposals – compliance received)

*J Nayak*  
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		 <p><b>Laying of Slurry Pipeline (Stringing)</b></p> <p><b>PROJECT COMPLETION TIMELINE: Construction of Beneficiation Plant at Sagasahi Mines and Laying of Slurry pipeline</b></p>

Proceedings of the SEAC meeting held on 01.05.2024 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent														
		 <p><b>c) Laying of Tailing pipeline from Dabuna Beneficiation Plant to Tailing Dam at Sankari.</b></p> <p><b>Project Brief Detail:</b> The tailings generated from Dabuna Beneficiation plant will be pumped &amp; transported to the Tailing Dam in the form of slurry. The water will be reclaimed from the tailing pond and will be pumped back to the Beneficiation Plant at Dabuna.</p> <p>Underground tailing pipeline along with return water pipeline of about 20 km long is scheduled to transport tailing and water as well. A pumping station is envisaged at Dabuna end. The tailings and water pipelines both are designed for 20 years of life.</p> <table border="1"> <thead> <tr> <th>Parameters</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Tailing pipeline from Dabuna to Sankari (20 km)</td> <td>16" (outer diameter) x 0.406" (wall thickness). API 5L Gr. X60 PSL2; 3LPE coated LSAW pipe</td> </tr> <tr> <td>Return water pipeline from Sankari to Dabuna (20 km)</td> <td>22" (outer diameter) x 0.375" (wall thickness) API 5L Gr. B PSL2; 3LPE coated LSAW pipe</td> </tr> <tr> <td>Line velocity</td> <td>Tailing – 2.47 ms<sup>-1</sup> Return water – 1.48 ms<sup>-1</sup></td> </tr> <tr> <td>Pump type</td> <td>Tailing – Horizontal positive displacement pump Return water – gravity flow</td> </tr> <tr> <td>Solid concentration of slurry, wt%</td> <td>~35%</td> </tr> </tbody> </table> <p><b>Physical Progress of the Project as on date:</b> Major Engineering, Supply &amp; Service order placed, Construction work in progress.</p> <table border="1"> <tr> <td><b>Engineering</b></td> <td> <ul style="list-style-type: none"> <li>○ Engineering for Pipe Laying Work: <b>100% completed.</b></li> <li>○ Balance of plant Basic Engineering: <b>100% completed.</b></li> <li>○ Detail Engineering: <b>89% completed.</b></li> </ul> </td> </tr> </table>	Parameters	Description	Tailing pipeline from Dabuna to Sankari (20 km)	16" (outer diameter) x 0.406" (wall thickness). API 5L Gr. X60 PSL2; 3LPE coated LSAW pipe	Return water pipeline from Sankari to Dabuna (20 km)	22" (outer diameter) x 0.375" (wall thickness) API 5L Gr. B PSL2; 3LPE coated LSAW pipe	Line velocity	Tailing – 2.47 ms <sup>-1</sup> Return water – 1.48 ms <sup>-1</sup>	Pump type	Tailing – Horizontal positive displacement pump Return water – gravity flow	Solid concentration of slurry, wt%	~35%	<b>Engineering</b>	<ul style="list-style-type: none"> <li>○ Engineering for Pipe Laying Work: <b>100% completed.</b></li> <li>○ Balance of plant Basic Engineering: <b>100% completed.</b></li> <li>○ Detail Engineering: <b>89% completed.</b></li> </ul>
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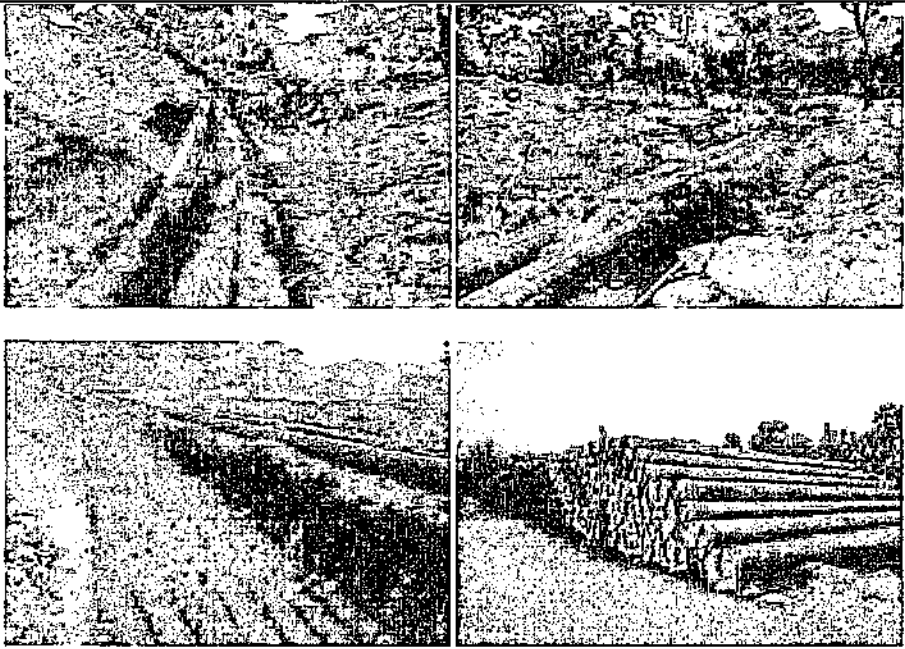
Proceedings of the SEAC meeting held on 01.05.2024 (Old proposals – compliance received)

*Jayant*  
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent															
		<b>Procurement</b>	<ul style="list-style-type: none"> <li>o Supply order for long lead Items: Positive Displacement pumps(2nos) &amp; Severe Service Ball Valves(4nos) order placed and manufacturing work in progress and Automation System ordering in progress.</li> <li>o Mainline Centrifugal pumps order placed.</li> <li>o Major Service order placed against construction activities.</li> <li>o Supply of Tailing Pipeline (16") -20kms and Return Water line (22") - 20kms pipes received</li> </ul>														
		<b>Construction</b>	<ul style="list-style-type: none"> <li>o Preliminary work Route survey &amp; Soil investigation Work completed.</li> <li>o Tailing Pipeline (16") - Stringing: 7.98/20kms and Lowering: 4.98/20kms completed.</li> <li>o Return Water line (22")- Stringing: 8.07/20kms and Lowering: 4.93/20kms completed.</li> </ul>														
		<b>Forest Clearance Status:</b> <ul style="list-style-type: none"> <li>• The Forest Diversion Clearance (Stage – I/ In-Principal approval) has been obtained for Tailing pipeline from Dabuna Beneficiation Plant to Tailing Dam at Sankari for 12.728 ha of forest land, vide Letter No. 5-ORC481/2021-BHU, dated 25th Dec' 2021 and attached as Annexure - 5.</li> <li>• Site-Specific Conservation Plan &amp; Wildlife Management Plan has been approved by the Chief Wildlife Warden. The total allocation of funds during the plan period is Rs.251.52 lakhs. Payment against Demand for Site-Specific Wildlife Conservation Plan has been made to ORISSA CAMPA account against RTGS UTR No: SBINR52023011927215182 on 19.01.2023.</li> <li>• Stage- 2 Compliance submitted to PCCF, Nodal – Approval is under progress (Letter from RCCF, Rourkela to PCCF, Nodal is attached as Annexure - 6).</li> </ul>															
		<b>Estimated Investment &amp; Remaining balance work:</b>															
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Sl. No.</th> <th>Name of the Project</th> <th>Project Cost (in Cr.)</th> <th>Invested as on Date (in Cr.)</th> <th>To be Invested (in Cr.)</th> <th>Project Completion Date</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Tailing Pipeline from Dabuna Beneficiation Plant to Tailing Dam at Sankari</td> <td>201.55</td> <td>175.29</td> <td>26.00</td> <td>30<sup>th</sup> Sept' 2025</td> </tr> </tbody> </table>				Sl. No.	Name of the Project	Project Cost (in Cr.)	Invested as on Date (in Cr.)	To be Invested (in Cr.)	Project Completion Date	1.	Tailing Pipeline from Dabuna Beneficiation Plant to Tailing Dam at Sankari	201.55	175.29	26.00	30 <sup>th</sup> Sept' 2025
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		<b>Project Site Photographs:</b>															

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 Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent																		
		<div style="display: flex; flex-wrap: wrap; justify-content: space-around;">  </div> <p style="text-align: center;"><b>Lying of Tailing Pipeline</b></p> <p><b>d) Construction of Tailing Storage Facility (TSF) at Sankari.</b>  <b>Project Brief Detail:</b> A Tailing storage facility (TSF) at Sankari village of Odisha has been designed as a cross-valley zoned earth and rock fill embankment occupying 321 acres of area to accommodate iron ore rejection in the form of thickened slurry through paste thickener. A return water pipeline is also envisaged parallel to tailing pipeline from Dabuna Beneficiation plant to TSF at 20 km to transport tailing and bring back excess water to plant. The salient features of the TSF are as follows.</p> <table border="1"> <thead> <tr> <th>Parameters</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Design &amp; safety standard</td> <td>Global Industrial Standard for Tailing Management (GISTM) &amp; Arcelor Mittal Tailing management standard</td> </tr> <tr> <td>Principal designer</td> <td>ATC Williams, Australia</td> </tr> <tr> <td>Embankment construction method</td> <td>Downstream raising</td> </tr> <tr> <td>Total allotted area</td> <td>321.8 Ac.</td> </tr> <tr> <td>Proposed maximum height</td> <td>~45 m</td> </tr> <tr> <td>Storage capacity</td> <td>9 million m<sup>3</sup></td> </tr> <tr> <td>Adoption of best available dewatering technology</td> <td>Discharging paste with 65% solids in lieu of conventional unthickened tailings with 35% solids.</td> </tr> <tr> <td>Water management</td> <td>Water separated from tailings will be sent back to Dabuna beneficiation plant by gravity flow through return water pipeline</td> </tr> </tbody> </table>	Parameters	Description	Design & safety standard	Global Industrial Standard for Tailing Management (GISTM) & Arcelor Mittal Tailing management standard	Principal designer	ATC Williams, Australia	Embankment construction method	Downstream raising	Total allotted area	321.8 Ac.	Proposed maximum height	~45 m	Storage capacity	9 million m <sup>3</sup>	Adoption of best available dewatering technology	Discharging paste with 65% solids in lieu of conventional unthickened tailings with 35% solids.	Water management	Water separated from tailings will be sent back to Dabuna beneficiation plant by gravity flow through return water pipeline
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*J Nayak*  
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	
		Tailing transport	Slurry Pipeline
		Embankment width	275 m
		Embankment length	730 m
		Crest road width	10 m
		Perimeter embankment slope ratio	Downstream 2.75H:1V Upstream 2.25H:1V
		Upstream surface protection	Application of BGM liner to protect embankment surface from weathering effect and water ingress.
		Safety measures	Geotechnical dam safety instruments (vibrating wire piezometer, extensometer, inclinometer, etc.) will be installed for proper monitoring during operation & construction stage to ensure safety of tailing dam. The data from geotechnical instruments will be analyzed over time, providing quality insight into the behavior of the structure and the ground below it.
		Management & governance	An Engineer of Record (EOR) will be appointed & empowered to establish best tailing management practice & safety governance as per GISTM
		<b>Physical Progress of the Project as on date:</b>	
		Major Engineering, Supply & Service order placed, Construction work in progress.	
		Engineering	<ul style="list-style-type: none"> <li>o Engineering for TSF Facilities: <b>100% completed.</b></li> <li>o Balance of plant Basic Engineering: <b>100% completed.</b></li> <li>o Detail Engineering: <b>80% completed.</b></li> </ul>
		Procurement	<ul style="list-style-type: none"> <li>o Supply order for long lead Items: Paste thickener &amp; Aux system order placed and manufacturing work in progress.</li> <li>o Decant pumps ordering placement in final stage.</li> <li>o Service order for Embankment construction work placed.</li> <li>o Paste Thickener Tanks Structural material received at site.</li> <li>o 33 KV Transmission line material received at site.</li> </ul>
		Construction	o Route Survey, Soil Investigation & Area

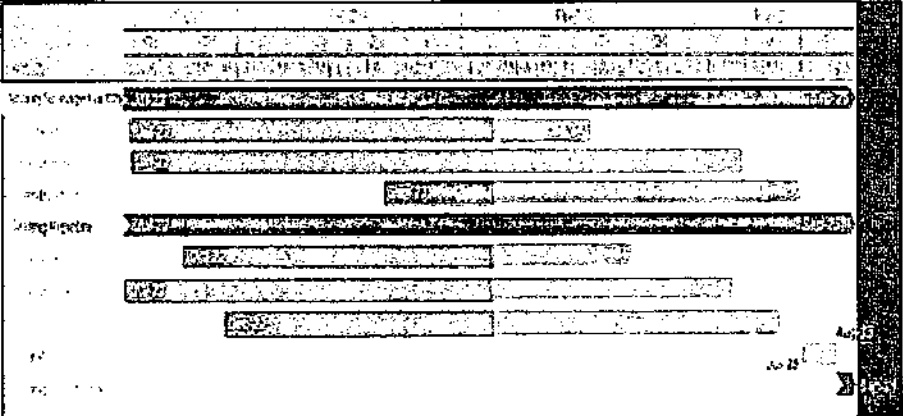
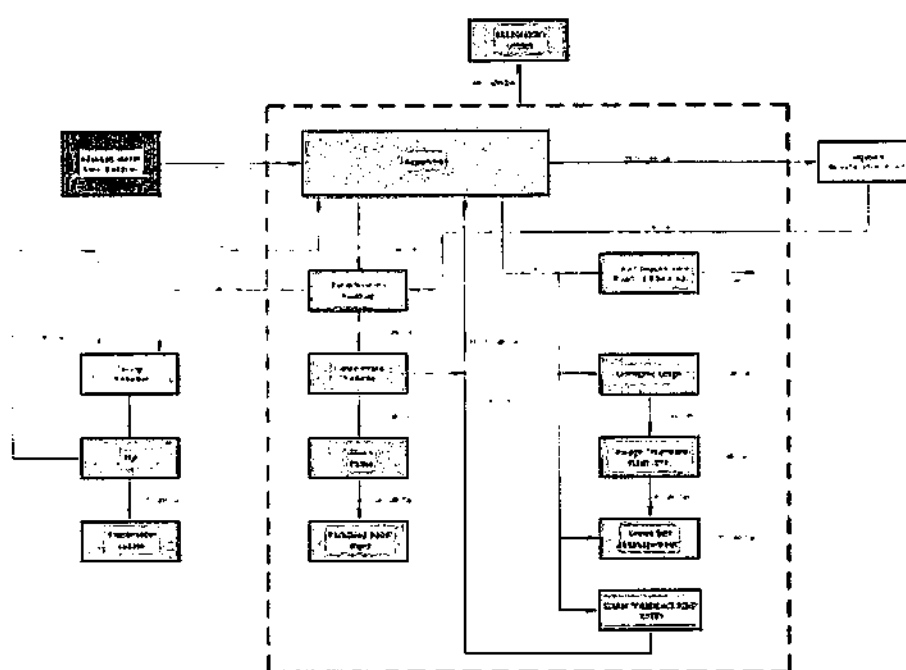
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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent															
		<p>Demarcation completed.</p> <ul style="list-style-type: none"> <li>o Excavation Work started for Embankment base foundation.</li> <li>o 33 KV transmission line laying work in progress.</li> </ul> <p><b>Forest Clearance Status:</b> No forest land involved in Tailing Dam Project area.</p> <p><b>Estimated Investment &amp; Remaining balance work:</b></p> <table border="1"> <thead> <tr> <th>Sl. No.</th> <th>Name of the Project</th> <th>Project Cost (in Cr.)</th> <th>Invested as on Date (in Cr.)</th> <th>To be Invested (in Cr.)</th> <th>Project Completion Date</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Tailing Pipeline from Dabuna Beneficiation Plant to Tailing Dam Site</td> <td>494.58</td> <td>379.80</td> <td>114.78</td> <td>30<sup>th</sup> Sept' 2025</td> </tr> </tbody> </table> <p><b>Project Site Photographs:</b></p> <div> </div> <p><b>Construction of Tailing Storage Facility (TSF) at Sankari</b>  <b>PROJECT COMPLETION TIMELINE:</b> Laying of Tailing pipeline from Dabuna Beneficiation Plant to Tailing Dam at Sankari and Construction of Tailing Storage Facility (TSF) at Sankari.</p>				Sl. No.	Name of the Project	Project Cost (in Cr.)	Invested as on Date (in Cr.)	To be Invested (in Cr.)	Project Completion Date	1.	Tailing Pipeline from Dabuna Beneficiation Plant to Tailing Dam Site	494.58	379.80	114.78	30 <sup>th</sup> Sept' 2025
Sl. No.	Name of the Project	Project Cost (in Cr.)	Invested as on Date (in Cr.)	To be Invested (in Cr.)	Project Completion Date												
1.	Tailing Pipeline from Dabuna Beneficiation Plant to Tailing Dam Site	494.58	379.80	114.78	30 <sup>th</sup> Sept' 2025												

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*J. Nayak*  
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		 <p><b>Water Balance:</b>  In the Beneficiation Plant, the water will be used for process operation, dust suppression system, slurry, and tailings transportation, flushing, firewater and drinking purpose. Drinking water requirements will be met from the raw water after necessary treatment within the plant facility. The total water requirement of 11.77 cusecs (about 1200 m3/h) for the Dabuna Beneficiation Plant and is sourced from Baitarani River through a 9 km long water pipeline. The water agreement is attached as Annexure - 7.</p> 
3.	A brief note as to why it will not be considered as violation to	This proposal is for amendment of EC condition for extension of permission for road transportation of iron ore pertaining to the specific condition of Environment Clearance granted for Expansion of Iron Ore Beneficiation Plant from 10.7 MTPA (Throughput) Capacity to 16.0 MTPA (Throughput) by M/s Arcelor Mittal Nippon Steel India Limited (AM/NS India).

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	<p>specific Environmental Clearance condition – 3, as the time period has already expired on August, 2023 as per the EC.</p>	<ul style="list-style-type: none"> <li>The EC was issued by SEIAA on 14.03.2023 vide EC Identification No. EC23B007OR110978, File No. 78693/31-IND /07-2022 (the EC copy attached as Annexure - 8). In the said EC, SEIAA stipulated a specific condition in relation to transportation of iron ore from Sagasahi mines to Dabuna Beneficiation Plant, is given as under.  <b><i>"The transportation of ore from Ghoraburhani – Sagasahi Iron Ore to Dabuna Beneficiation Plant by road is allowed only for 3 years i.e., up to 19.08.2023 vide MoEF&amp;CC, GoI, EC Letter F. No. J-11015/192/2016IA. III(M), dated 20.08.2020. No more road transportation is allowed after 19.08.2023 without permission of the MoEF&amp;CC."</i></b></li> <li>Another Environment Clearance (EC) granted for Ghoraburhani - Sagasahi Iron Ore with proposed production of 7,162,538 TPA iron ore (ROM), 18750 TPA Topsoil and 2,868,896 TPA 08/SB/IB (Total excavation: 1,00,50,184 TPA) along with Crushing &amp; Screening Plant and Beneficiation Plant with capacity of 6.7 Million TPA (1250 TPH) Capacity, vide File No. J-11015/192/2016-IA. II (M), from Ministry of Environment, Forest &amp; Climate Change (MoEF&amp;CC), New Delhi issued on 28.05.2020 (EC copy of Sagasahi Mines attached as Annexure - 9). In the EC of Sagasahi Mines, EAC stipulated a specific condition in relation to transportation of iron ore from Sagasahi mines to Dabuna Beneficiation Plant, is given below.  <b><i>"Till the construction of beneficiation plant in the mine lease area, the transportation of ore from mine to Dabuna Beneficiation plant by road is allowed only for 3 years. No more road transportation is allowed after 3 years without permission of the Ministry. From the 4th year onwards, the ore should be transported only through the proposed slurry pipeline or as per the guidelines of CSIR-NEERI's recommendation. PP shall inform Ministry for any deviation in the proposed mode of transport of minerals in case the timeline is not complied with."</i></b></li> </ul> <p>During the appraisal of EC proposal of Dabuna Beneficiation Plant, SEIAA has considered the above condition in line with CSIR-NEERI guidelines, and interlinked the condition with Dabuna EC, and allowed the road transportation of iron ore from Ghoraburhani – Sagasahi Mines to Dabuna Beneficiation Plant only for 3 years i.e., up to 19.08.2023.</p> <p>Here, we would like to inform you that, although the EC of the Sagasahi Iron Ore Mines of AM/NS India Ltd. was obtained on 28th May' 2020, but the mining operation had commenced on 9th September' 2021 and the captive dispatches are commenced from 29<sup>th</sup> Page 12 of 13 November' 2021 (copy of the actual starting date of mining operation notice submitted to DGMS and IBM are attached as Annexure - 10). The same was also communicated to the SEIAA committee during appraisal process. So, if we consider the date of mining operation of Sagasahi Mines and in line with the specific condition of CSIR-NEERI guidelines for road transportation up to three years. Then we should be allowed road transport till 8th Sept'</p>

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*T. Nayak*  
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		<p><b>2024.</b></p> <ul style="list-style-type: none"> <li>• In compliance to the EC, Specific Condition A, (2), and as per the guideline, half yearly compliance report has been submitted regularly to SEIAA, OSPCB, and IRO, MoEFCC, Bhubaneswar, Odisha (through mail) under Annexure – 11 &amp; 2 mentioning the existing status given as captioned above.</li> <li>• The Beneficiation plant at Sagasahi Mines has been under construction since Aug' 2022 and as per the work progress at site, the same will be completed by July' 2025. Simultaneously, the design and ROW for slurry pipeline from Sagasahi Mines to Beneficiation Plant, Dabuna has also started. The reason behind the delay in completion of the project is due to the cross-country issues, various ROW issues found during the execution process.</li> <li>• In addition to this, experiencing law &amp; order issues in the execution process while laying slurry pipeline in Keonjhar district of Odisha. The same has been brought to the notice of concerned government authorities at the highest level.</li> <li>• In view of the above delay in execution of laying of slurry pipeline from Sagasahi Mines to Dabuna plant, we have submitted a separate EC amendment application vide Online Proposal No. SIA/OR/MIN/463852/2024, dtd. 23.02.2024 on Parivesh Portal for Sagasahi Mines to extend the road transportation period from Sagasahi Mines. The EC amendment application copy, Form - 4 is attached herewith as Annexure – 12.</li> </ul> <p>Hence, due to the above mentioned technical and sociopolitical issues, it was not feasible to complete all the projects by 19.08.2023 and starts the transportation of slurry through pipeline instead of road transportation as per the condition given in Dabuna Expansion EC. The technical reason with justification has been stated above and subsequently, we have intimated the status through half yearly compliance report to SEIAA - Odisha, OSPCB, and IRO, MoEFCC, Bhubaneswar, Odisha.</p> <p>In view of the above delay in getting Stage – II Forest Clearances, and other local sociopolitical issues, we are expecting to execute the laying of slurry pipeline from Sagasahi Mines to Dabuna Beneficiation Plant by 30.09.2025, and for the same, we have submitted a separate EC amendment application for the extension of the said Sagasahi Mines transportation period in line with CSIR-NEERI guidelines.</p> <p>Also, as per the MoEFCC, New Delhi OM dated 11.04.2022 (copy attached as Annexure - 13), regarding EC granted to projects involving Forest Land says ... <i>In this context, it has been decided that the time taken for obtaining Stage-II FC, after the grant of EC may not be considered as part of the EC validity up to a maximum period of two years, so as not to compromise with the environmental safeguards.</i></p> <p>Here, we want to bring to your notice that the EC was issued by SEIAA on 14.03.2023 for the expansion of Beneficiation Plant from 10.7 MTPA (Throughput) Capacity to 16.0 MTPA (Throughput), is still under construction and implementation stage. The additional transportation of raw materials will be required once the project is</p>

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
		<p>ready for commissioning along with the slurry pipeline from Sagasahi Mines to Dabuna Beneficiation Plant.</p> <p>In view of the above, we are hereby requesting your good office for amendment of Specific Condition No. A (1) i.e., transportation of iron ore via road to the Dabuna Beneficiation plant is allowed till 30.09.2025 instead of 19.08.2023, based on the existing progress of the project and other statutory as well as socio-political issues which has been discussed above.</p>

Considering the information furnished and the presentation made by the consultant, **M/s. Visiontek Consultancy Services Pvt. Ltd, Bhubaneswar** along with the project proponent, the SEAC recommended following:

- (i) Specific Condition (A), 1 of Environmental Clearance issued by MoEF&CC, GoI, vide Letter F. No. J-11015/192/2016IA. III(M), dated 20.08.2020 may be replaced as follows:
- Till the construction of beneficiation plant in the mine lease area, the transportation of ore from mine to Dabuna Beneficiation plant by road may be permitted till 30.09.2025.
  - No more road transportation is allowed after the mentioned date without permission of the SEIAA, Odisha.
  - From 4th year onwards, it will be from 01.10.2025 onwards the ore should be transported only through proposed slurry pipeline or as per the guidelines of CSIR-NEERI's recommendation.
  - The PP shall inform the SEIAA, Odisha for any deviation in the proposed mode of transport of minerals in case the timeline is not complied with.

### **ITEM NO. 03**

#### **PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S PRATYAKSH ESTATES PRIVATE LIMITED FOR RESIDENTIAL APARTMENT PROJECT AT MOUZA - KUNEHIPADA, TAHASIL - BARANG, DISTRICT- CUTTACK, ODISHA – EC**

- This proposal is for Environmental Clearance of M/s. Pratyaksh Estates Private Limited for residential apartment project at Mouza - Kunehipada, Tehsil- Barang, District- Cuttack, Odisha.
- Category:** As per the EIA Notification, 2006 and its subsequent amendments, the proposed project falls under 8 (a): Building & Construction projects.
- Location and Connectivity:** The project site is located at Plot No- 889/3560, 850/1618, 893, 894(p), 846/2901, 889/3387(p), 890/4406, 890/4406, 890/4407, 891, 892, 895/2580(p), 895/2851(p), Khata no. 325/3287, 325/3214, 325/3112, 119/977, 325/2057, 119/975, 119/976, 237, 87, 325/2199, 325/2044, Mouza - Kunehipada, Tehsil- Barang, District- Cuttack, Odisha. The geographical co-ordinates of centre of the project site are Latitude 20°26'10.00"N and Longitude 85°50'8.91"E.falling under the Toposheet no. F45T15.The Nearest Highway is NH-16 which is approx. 4.3 km in east direction from the project site. The nearest Railway Station is Barang Junction is about 3.5 km (S) away from the project site.

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*J Nayak*  
Environmental Scientist, SEAC

Nearest Airport is Biju Patnaik International Airport is at 19.5 km (S) from project site. Nearest Sanctuaries are Chandaka Dampara WLS- 2 km, and its ESZ Boundary – 1.7 km, SW direction and Nandankanan WLS- 3.1 km and its ESZ boundary - 3 km, SW direction.

4. The site is coming under Cuttack Development Authority.
5. The plot area is 11,694.13 m<sup>2</sup> (2.89 Acre) with total built-up area 72,110.65 m<sup>2</sup>.
6. The Building Area Details of the Project is:

S. No.	Particulars	Area (m <sup>2</sup> )
1.	Total Plot Area	11,694.13
2.	Permissible Ground Coverage (@40% of the net plot area)	4,677.65
3.	Proposed Ground Coverage (@24.63% of the plot area)	2,879.79
4.	Permissible FAR (@2 of the plot area)	23,388.26
5.	Total Proposed FAR (@4.915 of the plot area)	57,476.63
	• Proposed FAR (@2)	23,388.26
	• Purchased FAR (@2.915)	34,088.38
6.	Non FAR Area	14,634.02
7.	Built-up Area (5+6)	72,110.65
8.	Landscape Area (@20% of the plot area)	2,338.826
9.	Maximum Height of the Building (m)	75

7. **Water Requirement:** During operation phase, the source of water supply will be Ground water. The total water requirement for the project will be approx. 290 KLD out of which domestic water demand is 281 KLD. The fresh water requirement will be 186 KLD.
8. **Wastewater generation:** The project will generate approx. 244 KLD of wastewater. The wastewater will be treated in onsite STP of 300 KL capacity. The treated effluent will be reused for flushing & horticulture. Surplus treated waste water of 116KLD in summer season and 121KLD in Winter season will be discharged to external sewer.
9. **Power Requirement:** The power supply will be through TP Central Odisha Distribution Limited (TPCODL). The total maximum demand load is estimated as 3872 KW. 5% of the total power demand will be met through solar energy i.e. 193.6 KW along with 5% for LED lighting and other conservation measures. Solar energy will be utilized for street lighting, solar blinkers and signage to reduce electricity consumption. There is provision of 2 nos. of DG sets of total 1,500 kVA (1 x 750 kVA + 1 x 750 kVA) capacity for power back up. The minimum height of stack to be provided with each generator set is 80mtr.
10. **Rainwater Harvesting:** 2 RWH tanks of 220 m<sup>3</sup> capacity each are proposed to collect rainwater for 414.68 m<sup>3</sup> runoff load.
11. **Parking Requirement:** Parking area required = 14,369.16 m<sup>2</sup> and Proposed Parking Area =14,387.295 m<sup>2</sup>/ 366 ECS.
12. **Fire Fighting Installation:** Fire fighting measures will be adopted as per the guidelines of NBC. External yard hydrants shall be installed around all buildings in the complex in

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*J. Nayak*  
Environmental Scientist, SEAC

galvanized steel fire house cabinet (weatherproof). All external yard hydrants shall be at one meter height from finished ground level as per NBC at a distance of 60 m along the road. External fire hydrants shall be located such that no portion of any building is more than 45 m from a hydrant and the external hydrants are not vulnerable to mechanical or vehicular damage.

13. **Green Belt Development:** Green Belt will be developed over an area of 2,338.826 m<sup>2</sup> which is 20% of total plot area. Total 150 Nos. of plants to be planted and 3m spacing between plants and it will be 2 tier plantation.
14. **Solid Waste Management:** During the operation phase, waste will comprise domestic as well as horticultural waste. The solid waste generated from the project shall be approx. 1101kg per day (@ 0.5 kg per capita per day for residents, @ 0.15 kg per capita per day for the visitor, 0.25 kg per capita per day for the staff members and landscape waste @ 0.2 kg/acre/day.
15. **Traffic Study Report has been vetted by KIIT and LOS at present is "B" and after 10 years it will be "C".**
16. **Project cost:** The estimated Project cost is 163.825 Crores (Land and Development Cost) and cost form EMP is 133 lakhs.
17. **Environment Consultant:** The Environment consultant M/s Grass Roots Research & Creation India (P) Ltd. Noida along with the proponent made a presentation on the proposal before the Committee.
18. The SEAC in its meeting held on **03-02-2024** recommended the following:
  - A. **The proponent may be asked to submit the following for further processing of EC application:**
    - i. Precautionary measures should be taken for noise pollution and dust management during the construction phase.
    - ii. The water balance needs to be revised to reduce the discharge of water below 100KLD. The PP should explore ways to reduce the quantity of water discharge by increasing the plantation.
    - iii. A layout map showing internal drainage, greenbelt, parking area & fire corridor.
    - iv. During construction phase, the soil digged from project site, should be stored properly and be used for plantation otherwise if shifted to another place then transportation of digged soil should be managed properly so that public don't face dust pollution.
  - B. **The proposed site shall be visited by Sub-Committee of SEAC to verify the followings**
    - i) Environmental settings of the project site.
    - ii) Verify if the site is a flood prone area.
    - iii) Construction activity if any started at the site and extent of construction activity.
    - iv) Road connectivity to the project site.

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Environmental Scientist, SEAC

- v) Drainage network at the site.
- vi) Discharge point for discharge of treated water and distance of the discharge point from the project site.
- vii) Any other issues including local issues.

19. 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.	Precautionary measures should be taken for noise pollution and dust management during the construction phase.	Details of Precautionary measures proposed for noise pollution and dust management during the construction phase is enclosed as <b>Annexure-I.</b>
2.	The water balance needs to be revised to reduce the discharge of water below 100KLD. The PP should explore ways to reduce the quantity of water discharge by increasing the plantation.	---
3.	A layout map showing internal drainage, greenbelt, parking area & fire corridor.	Layout plan showing all services is enclosed as <b>Annexure-II.</b>
4.	During construction phase, the soil digged from project site, should be stored properly and be used for plantation otherwise if shifted to another place then transportation of digged soil should be managed properly so that public don't face dust pollution.	Approx. 10,079.265 cum of soil will be excavated. It will be stored at a nearby plot. Topsoil will be used for landscape development and remaining will be used for filling purpose at site.
1.	Environmental settings of the project site.	ESZ boundary of Chandaka Dampara WLS is at the distance of 1.7 km towards SW direction and ESZ boundary of Nandankanan WLS is at the distance of 3 km towards SW direction from the project site. DFO NOCs for both the WLS has been obtained from competent authority and copy of the same is enclosed as <b>Annexure- III.</b> There is no other ecologically sensitive location near the project site.
2.	Verify if the site is a flood prone area.	Project Site does not located in flood prone area.
3.	Construction activity if any started at the site and extent of construction activity.	Current status of the project along with photographs is enclosed as <b>Annexure- IV.</b>
4.	Road connectivity to the project site.	The Nearest Highway is NH-16 which is approx. 4.3 km in east direction from the project site.
5.	Drainage network at the site.	Wastewater discharge plan showing drain connectivity is attached as <b>Annexure- II.</b>

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*J Nayak*  
Environmental Scientist, SEAC



Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
6.	Discharge point for discharge of treated water and distance of the discharge point from the project site.	Details provided above in point no. 5.
7.	Any other issues including local issues.	No other issues.

20. The proposed site was visited by the sub-committee of SEAC on 02.03.2024. Following are the observations of the sub-committee:

- a) The land was earlier with another owner, who had done only foundation work for few buildings (as observed). PP needs to demolish and comply with clear land layout with land ownership document before any construction activity. Any permission required for such demolition needs to be taken.
- b) Greenbelt to be minimum 20% (excluding land scaping) as it is not adequate at present.
- c) Permission from authority for connecting drain to the road side drain with approval of drain layout and discharge of excess treated water.
- d) Approved Drain layout and Sewage layout with plan for treatment and disposal of sewage waste.
- e) CDA plan if not submitted.
- f) Real time proof of demolition to be submitted at appropriate time.
- g) All other points asked during presentation to be complied.

Considering the information furnished and the presentation made by the consultant, **M/s Grass Roots Research & Creation India (P) Ltd., Noida** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – B** 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 land was earlier with another owner, who had done only foundation work for few buildings (as observed). PP needs to demolish and comply with clear land layout with land ownership document before any construction activity. Any permission required for such demolition needs to be taken. Real time proof of demolition to be submitted at appropriate time.
- iii) Greenbelt shall be developed in minimum 20% (excluding land scaping).
- iv) 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.
- v) The proponent shall obtain permission from concerned authority for connecting drain to the road side drain with approval of drain layout and discharge of excess treated water.

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- vi) The proponent shall approve drain layout and sewage layout with plan for treatment and disposal of sewage waste.
- vii) The proponent shall obtain approval of building plan from CDA.
- viii) The proponent shall take appropriate measures to reduce the discharge of water below 100KLD. The PP should explore ways to reduce the quantity of water discharge by increasing the plantation.
- ix) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.
- x) The proponent shall obtain permission from concerned Fire Safety Authority.
- xi) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- xii) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- xiii) 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.
- xiv) Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.
- xv) 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. 04**

#### **PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S. UDITI DWELLINGS PRIVATE LIMITED FOR REVISION & EXPANSION OF MULTI-STORIED RESIDENTIAL PROJECT AT MOUZA- RAGHUNATHPUR JALI, BHUBANESWAR, DISTRICT-KHORDHA, ODISHA - EC**

1. This proposal is for Environmental Clearance of revision & expansion of multi-storied residential project at Mouza - Raghunathpur Jali, Bhubaneswar, District - Khordha, Odisha for M/s Uditi Dwellings Private Limited.
2. **Category:** The project falls under category "B" or activity 8 (a) - Building and construction projects, as per the EIA Notification 2006 and amendments thereafter.
3. **Location and Connectivity:** The project site is located at Plot No. 317/2403, 318, 319, 320/2139, 322, 320, 321/2493, 325/1863, 326, 326/1851, 309/4706, 310, Mouza - Raghunathpur Jali, Bhubaneswar, District - Khurda, Odisha. The geographical co-ordinates of project site are 20°22'47.52"N & 85°49'29.14"E. Toposheet no. 73H11 & 73H15. The site is adjacent to Nandankanan Road and NH-16 is approx. 6.3 km away from the project site towards East direction. The nearest railway station is Bhubaneshwar New Junction Railway Station approx. 1.1km in East direction from the project site and Biju Patnaik International Airport is at a distance of approx. 13 km in South direction from the project site.

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Environmental Scientist, SEAC

4. The project was earlier granted Environment Clearance by SEIAA, Odisha vide letter no. 122283/11-MIS/11-2019 dated 17th August, 2020 for Plot area = 7405.75 sqm (1.83 acre) and Built-up area = 27,636.66 sqm.
5. **Transfer of Environmental Clearance** has been done through SEIAA, Odisha vide File No.: SIA/OR/MIN/306394/2023 dated **05.12.2023**.
6. Now, we are adding Tower-3 as a result of which the **Plot area will increase to 9549.43 m<sup>2</sup> & Built-up area will increase to 39,017.43 m<sup>2</sup>** for which Environment Clearance is being sought.
7. The site is coming under Bhubaneswar Development Authority, Bhubaneswar.
8. **The plot area is 9,549.43 m<sup>2</sup> (2.359 acres) with total built-up area 39,017.43 m<sup>2</sup>.**
9. The Building area details of the Project in tabulated form:

S. No.	Particulars	Area (m <sup>2</sup> ) (EC Accorded)	Area (m <sup>2</sup> ) (Revision & Expansion)	Total Area (m <sup>2</sup> ) (After Revision & Expansion)
1.	Total Plot Area	7,405.75	+2143.68	9,549.43
2.	Net plot area	7,405.75	+2,000.27	9,406.02
3.	Permissible Ground Coverage	2,592.0125 (35% of the Plot area)	+700.0945	3,292.107 (35% of the Net Plot area)
4.	Proposed Ground Coverage	1,447.36 (@19.5% of the Plot area)	+907.86	2,355.22 (25.04% of Net Plot Area)
5.	Permissible FAR	22,217.25 (@3 of Plot Area)	+35,079.08	57,296.58 (@6 of Plot Area)
6.	Proposed FAR	21,409.66 (@2.89 of Plot Area)	+7,946.37	29,356.03 (@3.121 of Net Plot Area)
	• Proposed Residential FAR	20,264.66	+8,091.52	28,356.18
	• Community building	1,145.60	-145.75	999.85
7.	Non-FAR Area	6,227.00	+3,435	9,662
	• Basement non F.A.R area (Lobby, Maintenance room, UGT, STP etc.)	5,286.69	+1,733.35	7,019.44
	• Tower's non F.A.R area (Meter room, fire command center, mummy, water tank etc.)	305.11	+88.18	393.29
	• Others non F.A.R area (Stilt, Guard room, Panel room, Community building etc.)	635.2	+1,613.47	2,248.67
8.	<b>Total Built Up Area</b>	<b>27,636.66</b>	<b>+11,380.77</b>	<b>39,017.43</b>
9.	Green Area	1,636.54 (22.09% of the Plot area)	361.75	1,967.73 (20.92% of Net Plot area)
10.	Maximum Height of the building (m)	54.5(B+G+14)	---	54.5(B+G+14)

#### 10. Statutory Clearances obtained are:

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- The project was earlier granted Environment Clearance by SEIAA, Odisha vide letter no. 122283/11-MIS/11-2019 dated 17<sup>th</sup> August, 2020 for Plot area = 7405.75 sqm (1.83 acre) and Built-up area = 27,636.66 sqm.
- Transfer of Environmental Clearance has been done through SEIAA, Odisha vide File No.: SIA/OR/MIN/306394/2023 dated 05.12.2023.
- CGWA NOC has been obtained vide no. CGWA/NOC/INF/ORIG/2020/9264 valid from 10<sup>th</sup> Dec. 2020 to 09<sup>th</sup> Dec. 2025

11. **Water Requirement:** During operation phase, the source of water supply will be Ground water. The total water requirement for the project will be approx. 182 KLD out of which domestic water demand is 167KLD. The fresh water requirement will be 110 KLD.

12. **Wastewater generated:** The project will generate approx. 147 KLD of wastewater. The wastewater will be treated in onsite STP of 175 KLD capacity. The treated effluent will be reused for flushing & horticulture. 71 KLD Surplus treated effluent will be discharged to external sewer in monsoon period and 64KLD in summer season.

S. No.	Description	Value as per Earlier Granted EC	Addition due to Expansion	Total Quantity (After Expansion)
1.	Total Water Requirement	112 KLD	70 KLD	182 KLD
2.	Fresh Water Requirement	75 KLD	35 KLD	110 KLD
3.	Wastewater Generation	92 KLD	53 KLD	147 KLD
4.	STP Capacity	110 KLD	65 KLD	175 KLD

13. **Power requirement:** - The power supply will be through TP Central Odisha Distribution Limited (TPCODL). The total maximum demand is estimated as 860 kVA. 10% i.e., 86 kVA energy will be saving from total energy load (5% i.e., 43 kVA through solar and 5% i.e., 43kVA through LED). Solar energy will be utilized for street lighting, solar blinkers and signage to reduce electricity consumption. There is provision of 2 no. of DG sets of total capacity 570 kVA (1\*320 kVA + 1\*250 kVA) capacity for power back up.

14. **Rainwater harvesting:** - 7 RWH pits of 50.24 m<sup>3</sup> capacity each are proposed for artificial ground water recharge.

15. The total population (EC accorded + Expansion) is 1436nos.

16. **Parking requirement:** - Total 281 ECS parking is proposed. 30% of total parking area provided with EV Charging Point = 281@30% = 79 ECS.

17. **Fire fighting installation:** - Firefighting measures will be adopted as per the guidelines of NBC. External yard hydrants shall be installed around all buildings in the complex in galvanized steel fire house cabinet (weather proof). All external yard hydrants shall be at one meter height from finished ground level as per NBC at a distance of 60 m along the road. External fire hydrants shall be located such that no portion of any building is more than 45 m from a hydrant and the external hydrants are not vulnerable to mechanical or vehicular damage.

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*J. Nayak*  
Environmental Scientist, SEAC

18. **Green Belt Development:** - Green Belt will be developed over an area of 1,967.73 m<sup>2</sup> i.e. 20.92% of the net plot area. Total 120 Nos. of plants to be planted and 3m spacing between plants and it will be 2 tier plantations.
19. **Solid Waste Management:** - During the operation phase, waste will comprise domestic as well as horticultural waste. The solid waste generated from the project shall be approx. 660 kg per day (@ 0.5 kg per capita per day for residents, @ 0.15 kg per capita per day for the visitor, 0.25 kg per capita per day for the staff members and landscape waste @ 0.2 kg/acre/day).
20. **Project cost:** The estimated Project cost is 80 Crores (Land and Development Cost) and cost form EMP is 40.5 lakhs.
21. **Environment Consultant:** The Environment consultant M/s **Grass Roots Research And Creation India (P) Ltd., Noida** along with the proponent made a presentation on the proposal before the Committee.
22. The SEAC in its meeting held on **03-02-2024** recommended the following:
- A. **The proponent may be asked to submit the following for further processing of EC application:**
- i) The compliance report for Previous EC conditions duly certified by Regional Officer, MoEF&CC.
  - ii) The proponent should re-evaluate and explore ways to reduce the water discharge by increasing the greenbelt area.
  - iii) NOC/permission for discharge of treated water to nearest municipal drain.
  - iv) Copy of Consent to Establish from the State Pollution Control Board, Odisha.
  - v) Construction status of the existing project.
- B. **The proposed site shall be visited by Sub-Committee of SEAC to verify the followings**
- i) Environmental settings of the project site.
  - ii) Verify if the site is a flood prone area.
  - iii) Construction activity if any started at the site and extent of construction activity.
  - iv) Road connectivity to the project site.
  - v) Drainage network at the site.
  - vi) Discharge point for discharge of treated water and distance of the discharge point from the project site.
  - vii) Verification for additional parking space provision.
  - viii) Any other issues including local issues.
23. The proponent has furnished the compliance and the SEAC verified the same as follows:

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	The compliance report for Previous EC conditions duly certified by Regional Officer, MoEF&CC.	The compliance report of December 2023 session for Previous EC conditions along with CCR from Regional Office of Ministry is enclosed as <b>Annexure-I</b> .	Compliance Report has been submitted.
2.	The proponent should re-evaluate and explore ways to reduce the water discharge by increasing the greenbelt area.	We have proposed maximum possible reuse of STP treated water under flushing and horticulture. The surplus STP treated water will be used for external road-side plantation to reduce the discharge quantity.	-
3.	NOC/permission for discharge of treated water to nearest municipal drain.	Permission for discharge of treated water to nearest municipal drain has been obtained. Copy of the same is enclosed as <b>Annexure-II</b>	Copy sent to Planning Member, BDA, BBSR for vetting of Drainage and Sewerage Plan of the project by the CE- cum – EM, BDA, BBSR has been submitted.
4.	Copy of Consent to Establish from the State Pollution Control Board, Odisha.	Consent to Establish vide letter no. 4038/IND-II-CTE-6482 dated 17.03.2021 from the State Pollution Control Board, Odisha for the existing part of project. Copy of the same is enclosed as <b>Annexure-III</b>	---
5.	Construction status of the existing project.	Project is under construction as per earlier EC granted. Site photographs of existing part are enclosed as <b>Annexure-IV</b> .	---
<b>Reply to Site visit points</b>			
1.	Environmental settings of the project site.	ESZ boundary of Chandaka Dampara WLS is at the distance of 2.8 km towards NNE direction and ESZ boundary of Nandankanan WLS is at the distance of 0.6 km towards NNE direction from the project site. DFO NOCs for both the WLS has been obtained and copy of the same is enclosed as <b>Annexure-V</b> . There is no other ecologically sensitive location near the project site.	---
2.	Verify if the site is a flood prone	Project Site is not located in flood	---

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*Jayak*  
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	area.	prone area.	
3.	Construction activity if any started at the site and extent of construction activity.	Current status of the existing part of project along with site photographs is enclosed as <b>Annexure- IV.</b>	---
4.	Road connectivity to the project site.	The connecting road is Nanadakanan Road which is adjacent to the project site. The Nearest Highway is NH-16 which is approx. 6.3 km in east direction from the project site.	---
5.	Drainage network at the site.	Drainage plan showing drain connectivity is attached as <b>Annexure- VI.</b>	---
6.	Discharge point for discharge of treated water and distance of the discharge point from the project site.	Details provided above in point no. 5.	---
7.	Verification for additional parking space provision.	As per earlier granted EC, we had proposed 248 ECS. Under revision & expansion we have proposed additional 33 ECS. Total proposed parking including existing and proposed is 281 ECS. Parking plan is enclosed as <b>Annexure- VII.</b>	---
8.	Any other issues including local issues.	No local issues.	---

24. The proposed site was visited by the sub-committee of SEAC on 02.03.2024. Following are the observations of the sub-committee:

- a) It's an expansion of project by one more tower in addition to two towers which are under construction.
- b) The PP explained the layout and informed that the present construction is as per plan and EC condition. However, he may be asked to submit information in a Tabular form giving comparison of approved plans and other components for existing vs actual with proposed including parking, green belt, solar, discharge treated water etc.
- c) Plan to reduce discharge of treated water with permission from authority.
- d) All statutory permission for or including the new proposed building from appropriate authority.
- e) All other points asked during presentation to be complied.

25. Observation of Sub-committee of SEAC at para – 24 (a) has already complied by the proponent in table at para 9 above.

Considering the information furnished and the presentation made by the consultant,

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*J Nayak*  
Environmental Scientist, SEAC

M/s Grass Roots Research & Creation India (P) Ltd., Noida along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per Annexure – C 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) Greenbelt shall be developed in minimum 20% (excluding land scaping).
- iii) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.
- iv) The proponent shall obtain permission from concerned authority for connecting drain to the road side drain with approval of drain layout and discharge of excess treated water.
- v) The proponent shall approve drain layout and sewage layout with plan for treatment and disposal of sewage waste.
- vi) The proponent shall use solar energy at least to the tune of 5%of total power requirement as proposed.
- vii) The proponent shall obtain permission from concerned Fire Safety Authority.
- viii) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- ix) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- x) 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.
- xi) The proponent shall plan to reduce discharge of treated water with permission from concerned authority.
- xii) The proponent shall obtain statutory permission including the new proposed building from appropriate authority.
- xiii) Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.
- xiv) The project was earlier granted Environment Clearance by SEIAA, Odisha vide letter no. 122283/11-MIS/11-2019 dated 17th August 2020 for Plot area = 7405.75 sqm (1.83 acre). The monitoring report for ensuring compliances with the conditions stipulated in the above-mentioned EC order, submitted by the regional office, Bhubaneswar, Ministry of Environment, Forest & Climate Change. Government of India has mentioned non-compliance and partial

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compliances with a large number of conditions (Part II & III of the report) and the project proponent shall comply with the same.

- xv) 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 MULTISTORIED RESIDENTIAL BUILDING PROJECT B+S+16 (BLOCKS A& B) OF M/S EVOS BUILDCON PVT. LTD. OVER AN BUIL-UP AREA 34341.85 SQ.MT AT: MOUZA- JAGASARA, TAHASIL - JATNI, DIST- KHORDHA OF SRI KALINGA KESHARI RATH - EC**

1. This proposal is for Environmental Clearance of Multistoried Residential Building Project B+S+16 (Blocks A& B) of M/s Evos Buildcon Pvt. Ltd. over a built-up area 34341.85 Sq.mt At: Mouza- Jagasara, Tahasil - Jatni, Dist - Khordha of Sri Kalinga Keshari Rath.
2. **Category:** As per EIA Notification, 2006 and its subsequent amendments this proposed project falls under category B1 and activity 8 (a) - Building and Construction projects.
3. **Project details:** The proposed twin blocks project "Empire Twins" is a multistoried Residential Apartment Building comprising of 2 nos. (two) blocks which are of same configuration with B+S+16 Floors each over a total plot area of 6801.18 Sq.m or 1.681 Acres in favour of M/s Evos Buildcon Pvt. Ltd.
4. Approval from Bhubaneswar Development Authority, Bhubaneswar vide File No- BP-BDA-2022-10-23-009644 has been applied to by the project proponent (applicant).
5. **Location and connectivity:** The proposed project site is located at Plot No - 580, 581, 582, 583, 599, 581/1308, 599/1134, Khata No- 229/1899 (old Khata No. 229/320), 229/893, 229/322, 229/1477 in Mouza- Jagasara, Tahasil - Jatni of Khordha district, Odisha. The proposed project site lies and covered in the Survey of India Topo sheet no. F45T11. The geographical co-ordinates of project site are Latitude 20° 16' 06.84" N to 20° 15' 07.67" N and Longitude 85° 43' 11.46" N to 85° 43' 13.84" E. The upcoming project site is located at a distance of 1.0 km from Mouza - Jagasara. Khordha is at a distance of 13.0 Km. NH-16 is at a distance of 3 km. Khordha Chandaka Road is at a distance of 3.2 km. Bhubaneswar town is located at a distance of 12.0 km. Biju Patnaik International Airport is at a distance of 10 km. Bhubaneswar Railway station is at a distance of 13.0 km. Bhubaneswar Fire Station is located at a distance of 8.7 km and Bhubaneswar govt. hospital is located at a distance of 10.8 km from the project site.

**6. Built up area details:**

Plot Area	: 6801.18 Sqm
Net Site Area	: 6799.80 Sqm
Total Proposed FAR Area	: 27099.52 Sqm
Covered Parking Area	: 7,242.33 Sqm
S.Pool Area	: 112.66 Sqm
Total Built-up Area	: 34341.85 Sqm

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*J Nayak*  
Environmental Scientist, SEAC

Total Green Area	: 1500 (22.06%) Sqm
Height of the Building	: 51.25 mts
No of Blocks	: A & B with 16 floors each.
No of Flats	: 176 (3BHK)

7. **Water requirement:** The source of water supply during operational phase will be borewells for which requisite approval from the CGWA has been applied for. The total water requirement for the proposed project is approx. 163 KLD, out of which total domestic water requirement is 147 KLD. The freshwater requirement is approx. 103 KLD. No Objection Certificate (NOC) for Ground Water Abstraction was obtained with NOC No. CGWA/NOC/INF/ORIG/2022/17056, valid from 17/11/2022 to 16/11/2027 for 97KLD.
8. **Wastewater Generation and Treatment:** The total domestic water requirement for this residential project will be 147 KLD and it is expected that the project will generate approx. 128 KLD of wastewater. The wastewater will be treated in onsite STP of 150 KLD capacity. The treated effluent will be reused for flushing, greenbelt and miscellaneous uses. Surplus treated effluent will be discharged to Recharge Trench.
9. **Rainwater harvesting:** Rainwater harvesting has been catered to and designed as per the guideline of CGWA. Peak hourly rainfall has been considered as 140 mm/hr. The recharge pit of dimensions 1.5mx1.5mx2m (Liquid Depth) is constructed for recharging the water. 11 Nos. rainwater harvesting pits are being provided for run-off from the site.
10. **Fire fighting details:** The height of the building is upto 51.25 mts. Fire Extinguisher, First Aid Hose Reel, Wet Riser, Yard Hydrant, Automatic Sprinkler System, Manually operated Electronic Fire Alarm System, Underground Static Water Tank including Water Curtain, Overhead Tank will be provided as safety measures in both the blocks. Internal road of 7.5 mt width has been demarcated for movement of fire vehicle
11. **Solid waste generation:** During the operation phase, estimated quantity of the waste shall be approx. 626 kg per day. Garbage will be 607.5 Kg/Day in which Biodegradable Waste 364.5 Kg/Day @ 60% will be treated in In-house Organic Waste Converter and Non-Biodegradable waste 243 Kg/Day @ 40% will be sent to Authorized Vendors as per SWM Rules 2016. Landscape waste will be 0.074 Kg/Day. STP Sludge generation will be 17.9 Kg/day.
12. **Power requirement in the project:** Electricity requirement for the apartment building will be 2060.11KW which will be supplied from TPCDOL. Out of the total electricity requirement 107.9 KW will be required for common area power load, common area light load and outdoor light and power. There will be electrical distribution transformers within the project site. DG Set of 2 Nos. of capacity 315 KVA has been proposed for the residential society to provide supply considering the critical loads for each application. Solar power generation is 103 KW from PV solar panels.
13. **Parking details:** Parking required as per BDA is 25% of proposed F.A.R which is 25% of 27099.52 sqm i.e., 6774.80 sqm. In terms of ECS @ 32 sqm - 210 ECS. Parking area provided is 7,713.09 sqm (basement parking – 4714.74 sqm + stilt parking - 2527.59 sqm +open parking - 470.76 sqm) in terms of ECS @ 32/23 sqm which is 255 ECS.

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*J. Jayak*  
Environmental Scientist, SEAC

14. **Greenbelt:** Total green area measures 1500.0 m<sup>2</sup> (approx. 22.06% of the total plot area). Green Belt is 925.0 Sqm and Green Area is 575.0 Sqm. Evergreen tall and ornamental trees have been proposed to be planted inside the premises.
15. **Project cost:** The estimated cost of the upcoming residential project is INR 72.0 Crores. EMP cost is 60 lakhs (capital) and recurring 17 lakhs. For environmental protection measures a amount of Rs.74 Lakhs as capital cost and Rs.24.5 Lakhs as recurring cost has been earmarked.
16. **Environment Consultant:** The Environment consultant **M/s Right Source Industrial Solutions Pvt. Ltd.** along with the proponent made a presentation on the proposal before the Committee on dtd. 17.02.2023.
17. The SEAC in its meeting held on dated **17-02-2023** recommended the following:
- A. **The proponent may be asked to submit the following for further processing of EC application:**
- i) Land schedule and Kisam of land.
  - ii) Traffic study report and get vetted from reputed institute.
  - iii) Recalculate RWH by taking maximum rainfall into account.
  - iv) Drain connectivity and discharge point.
  - v) Break up calculation for solar power generation, consumption, roof top capacity, percentage contribute to power demand.
  - vi) Status of permission from Airport Authority about building height.
  - vii) Green belt is observed to be 13% and needs to be revised to meet the norm and revised plan/layout to be submitted
  - viii) Permission from appropriate authority for discharge of treated water to be provided.
- 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.
18. **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 along with other team members.
  - b) It was observed that the site is adjacent to a 40 ft. road.

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*Jayak*  
Environmental Scientist, SEAC

- c) The site was clean and no construction work carried out.
- d) PP explained that as per plan the project will be of ZLD. However, rain water and excess treated water if any shall be allowed to fall in an existing Nallah through a drain to be constructed by them. Since the road is a private road, necessary POA to be taken from the land owner for constructing the drain. Any portion of drain if on Govt road, required permission also to be taken from the appropriate authority (BDA/BMC) (Conditions to be stipulated)
- e) A Nallah was seen at a distance from the site. Permission to allow water as at d) above to be also taken from the appropriate authority (Conditions to be stipulated)
- f) Trees are to be planted to comply green belt requirement.
- g) Documents asked during presentation needs to be submitted.

19. 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.	Land schedule and Kisam of land.	Plot No - 580,581,582,583,599, 581/1308,599/1134, Khata No - 229/320,229/893, 229/322, 229/1477, Mouza - Jagasara, Tahasil - Jatni, District - Khordha, Odisha.  Attached Land documents as <b>Annexure - I.</b>	submitted
2.	Traffic study report and get vetted from reputed institute.	Traffic study Report was vetted by School of Civil Engineering KIIT Deemed to be University, Bhubaneswar.  Attached Land documents <b>Annexure - II.</b>	Present Traffic is categorized under LOS is 'A', After 10 years, with/without project the LOS will be 'B' as vetted by School of Civil Engineering KIIT Deemed to be University, Bhubaneswar.
3.	Recalculate RWH by taking maximum rainfall into account.	8 No's of Rain Water Harvesting pits area being proposed for artificial rain water recharge within the project premises.  Calculation attached as <b>Annexure -III.</b>	8 No's of Rain Water Harvesting pits has been proposed taking account peak rainfall intensity of 0.140m/hr.
4.	Drain connectivity and discharge point.	The drainage connectivity and discharge point layout attached as <b>Annexure -IV.</b>	Drainage map submitted.

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		Drainage network will be developed by the Project Proponent.	
5.	Break up calculation for solar power generation, consumption, roof top capacity, percentage contribute to power demand.	Solar Power utilization will be 7.1% The details are attached as Annexure -V.	Solar power consumption and total power usage is given. However, Break up calculation for solar power generation is not submitted.
6.	Status of permission from Airport Authority about building height.	NOC ID: BHUB/EAST/B/102922/723896 NOC from AAI was obtained on 15.11.2023 valid upto 14.11.2030 Attached as Annexure - VI.	submitted
7.	Green belt is observed to be 13% and needs to be revised to meet the norm and revised plan/layout to be submitted	Not submitted	Not submitted
8.	Permission from appropriate authority for discharge of treated water to be provided	Not submitted	Not submitted

20. The SEAC in its meeting held on dated 12-07-2023 decided to take decision on the proposal after receipt of the following information / documents from the proponent. The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
1.	Break up calculation for solar power generation, consumption, roof top capacity, percentage contribute to power demand.	Solar power calculation has been attached for your reference as Annexure -I. The Solar power generation will be 150 KW with PV capacity as 1.5 KWh.
2.	Green belt is observed to be 13% and needs to be revised to meet the norm and revised plan/layout to be submitted.	Total Plot area 6,799.80 m <sup>2</sup> Proposed Green belt area 1359m <sup>2</sup> (19.98% of plot area) and green area is 325 Sq.m Total proposed area for green belt development is 1359 + 325 = 1684 Sq.m which is 24.76% of total plot area. The revised layout plan has been attached for your reference as Annexure -IV.
3.	Permission from appropriate	Declaration letter has been attached

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*J. Nayak*  
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	authority for discharge of treated water to be provided.	for your reference as Annexure-II.
4.	Document with respect to POA from the land owner for constructing the drain (if it is passing through private land) and if through Govt. road, required permission from the appropriate authority (BDA/BMC etc) May be submitted as suggested during site visit.	Declaration letter has been attached for your reference as Annexure-II.
5.	A Nallah was seen at a distance from the site. Permission to allow water as above from the appropriate authority (if obtained or applied) to be submitted.	Acknowledgement letter has been attached for your reference as Annexure-III.

26. The SEAC in its meeting held on dated 17-11-2023 decided to take the decision on the proposal after receipt of the following from the proponent: The proponent has furnished the compliance and the SEAC verified the same as follows:

Sl. No.	Information Sought by SEAC.	Compliance furnished by the proponent	Views of SEAC
i.	Permission from appropriate authority for discharge of treated water to be provided.	Declaration letter has been attached for your reference as Annexure-I.	Application to the Chief Engineer, Drainage Division, Cuttack, Odisha for vetting of EIDP of the proposed project has been submitted.
ii.	Document with respect to POA from the land owner for constructing the drain (if it is passing through private land) and if through Govt. road, required permission from the appropriate authority (BDA/BMC etc.) May be submitted as suggested during site visit.	An affidavit of undertaking by the project proponent has been submitted for your reference as Annexure – II.	-
iii.	A Nallah was seen at a distance from the site. Permission to allow water as above from the appropriate authority (if obtained or applied) to be submitted.	Acknowledgement letter of application has been attached for your reference as Annexure – I.	Application to the Chief Engineer, Drainage Division, Cuttack, Odisha for vetting of EIDP of the proposed project has been submitted.

Considering the information furnished and the presentation made by the consultant, M/s Right Source Industrial Solutions Pvt. Ltd. along with the project proponent, the

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 Environmental Scientist, SEAC

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) Affidavit has submitted by PP that they will construct drain for the above residential project at their own cost and expenses and will obtain clearance from private land owners as well as from Govt. Authority in which drain will be constructed to nearest available disposal point. The PP shall strictly follow it, failing to which EC shall be revoked.
- ii) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
- iii) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.
- iv) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.
- v) The proponent shall obtain permission from concerned Fire Safety Authority.
- vi) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- vii) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- viii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- ix) The PP will not commence construction unless the drain lay out is finalized and permission given for the same by the authority to discharge excess treated water & storm water.
- x) Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.
- xi) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

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*Jwajak*  
Environmental Scientist, SEAC

**ITEM NO. 06****PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S STHAAPATY PVT. LTD FOR PROPOSED (2B+G+12) MULTI STORIED RESIDENTIAL APARTMENT OVER AN BUILT-UP AREA LOCATED AT PLOT NO.- 361, KHATA NO-212, MOUZA- BANDHACHHADA & KACHARAMALA, TAHASIL- CUTTACK, DIST-CUTTACK OF SRI ABINASH DASH - EC**

1. This proposal is for Environmental Clearance of M/s Sthaapaty Pvt. Ltd for Proposed (2B+G+12) Multi Storied Residential Apartment over an built up area located at Plot No.- 361, Khata No-212, Mouza- Bandhachhada & Kacharamala, Tahasil- Cuttack, Dist-Cuttack of Sri Abinash Dash.
2. **Category:**The project falls under category "B" or activity 8 (a)-Building & Construction Project under EIA Notification dated 14th September 2006 as amended from time to time.
3. **Location and Connectivity** – The proposed site is located at Mouza- Bandhachhada and Kachramala, Tehsil- Cuttack, Dist- Cuttack, Odisha. The Geographical co-ordinate of the project site is Latitude 20°22'05.00"N & Longitude 85°53'18.9"E. The project site is well connected with the National Highway-16 & Puri-canal Road located at the distance of 0.2 Km & 0.03 km respectively. The nearest Railway station is Bhubaneswar Railway Station at a distance of approximately 12.2 Km from the project site. The nearest Airport is Biju Patnaik International Airport, Bhubaneswar which is at a distance of 14.5 Km from the project site. Kuakhai River is at a distance of 0.5 km from project site.
4. The site is coming under Cuttack Municipal Corporation (CMC).
5. The total plot area is 6152.854 sq.mt. with total built-up area 24535.357 sq.mt.
6. Details of the Project in tabulated form

Particular	Permissible	Proposed
Project Name	Proposed 2B+G+12 <sup>th</sup> Multi Storied Residential Apartment	
Plot Area	6152.854 sqm	
Ground Coverage		2082.125 sqm (33.84%)
FAR	7.5	3.987
Total Built up Area	--	24535.357 sqm
Maximum Height	--	40.9
Road Area	--	1700 sqm
Open Visitor Parking	--	88 sqm.
Basement Parking	--	4547.939 sqm
Open Parking	--	88.00 sqm
Total Parking Area	7360.60 sqm (30% of FAR Area)	9183.878 sqm.
Green Area	1,230.57 sqm (20% of Plot Area)	1,384.57 sqm (22.5% of Plot Area)
Maximum No. of Floor	--	2B+G+12 <sup>th</sup>
Power/Electricity Requirement & Sources	--	1839.6 KW Source: TPCODL
No. of DG sets	--	2x500 KVA
Solar Energy	--	101.5 KW (5.5 %)

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*Triyak*  
Environmental Scientist, SEAC



Water requirement & Sources	--	103.0 KLD
Waste Water Generation	--	132.7 KLD
Sewage Treatment & Disposal	--	STP Capacity – 150 KLD
Solid Waste Generation	--	583.3 kg/day
No. of Dwelling Unit	--	184 nos.
Estimated Population-Residential, Floating/visitors	--	Residential- 1112 Nos. Floating- 111 Nos.

7. **Statutory clearances:** CDA has provisionally approved the building plan vide Letter No. 1586/CMC, dated: 26.10.2022. Ground Water Clearance obtained from CGWA vide NoC No. CGWA/NOC/INF/ORIG/2023/18573, dated 22.05.2023. Height clearance obtained from Airport Authority of India (AAI) vide NOC ID BHUB/EAST/B/111422/726399, dated 26.12.2022. Water & Sewerage connection from WATCO Cuttack vide letter no. 2214, dated 14.02.2023. Fire recommendation obtained from Odisha Fire Services vide recommendation No. RECOMM1101020042022000946, dated 08.12.2022. Electricity permission obtained from TPCODL vide Letter No. TPCODL/CED/TECH/No. 667, dated 24.02.2023.

8. **Water requirement:** Fresh make up water of quantity 103.0 m<sup>3</sup>/day will be required for the project which will be sourced from Ground Water.

Sl. No.	Description	Total Population	Per Capita Consumption (ltr/day)	Water Requirement (KLD)		
				Domestic	Flushing	Total
1.	Residential Building	1112 nos.	135	100.08	50.04	150.12
2.	Visitor @ 10 %	111 nos.	45	2.77	2.22	4.99
<b>TOTAL</b>				<b>102.85 ≈ 103</b>	<b>52.26 ≈ 53</b>	<b>155.11 ≈ 156</b>

9. **Waste water generation and management:** Total waste water generated from the proposed building will be 132.7 KLD which is treated in STP of capacity 150.0 KLD.

Details of waste water calculation	Water (KLD)
Water requirement for domestic purpose	103.0
Wastewater generated from domestic use (@ 80% of domestic water requirement)	82.4
Water requirement for Flushing Purpose	53.0
Wastewater generated from Flushing (@ 95% of flushing requirement)	50.3
Total Wastewater generated	82.4+50.3 = 132.7 KLD
Sewage Treatment Plant Capacity	150 KLD
STP Loss (5 % of wastewater generation)	6.6
Recycled water form STP @ 95% of wastewater generated	126.0

10. **Power requirement:** Total Power requirement of the proposed residential building is 1839.6 KW, Source is TPCODL, 2x500 KVA DG Set will be provided. Total 101.5 KW Solar Power Generation which is 5.5% of total power required in project.

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Total Power Requirement	1839.6 KW
Power from Solar System	101.5 KW
Source	TPCODL
Back up Power	2 x 500 KVA DG sets will be provided.

11. **Rain Water Harvesting:** Total 137 cum Rain Water will be harvested through 14nos. of recharge pits.

12. **Parking Requirement:** Total parking area of 9183.878 Sq.mt. will be provided and total 288 nos. of ECS and location of parking area is Basement.

Parking Area Provided			
Basement Parking			9095.878 sqm
Open Parking			88.0.00 sqm
<b>Total Parking</b>	--	--	<b>9183.878 sqm</b>
Equivalent Car Space Provided			
	Area (sqm)	Area/ECS	
Basement Parking	9095.878	32	284 ECS
Open Parking	88 sqm	25	4 ECS
<b>Total Parking Provided</b>			<b>288 ECS</b>
Total Four Wheeler Parking			184 Nos.
Total Two Wheeler Parking			150 Nos.
Parking for Visitor (10%)			918.4 sqm

13. **Green Belt Development:** Greenbelt will be developed over an area of 1,384.57 sqm which is 22.5% of the total plot area. Total 80 nos. of plants to be planted.

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

#### Detail of Solid Waste Management

S. No.	Category	Counts (heads)	Waste generated (kg/day)
1.	Residents	1112 @ 0.45 kg/day	500.4
2.	Floating	111 @ 0.15 kg/day	16.6
3.	STP sludge		66.3
<b>Total Solid Waste Generated</b>			<b>583.3 kg/day</b>

15. **Project cost:** The estimated project cost is 45.0 Crores and cost for EMP is 1.7 Crores.

16. **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.

17. The SEAC in its meeting held on dated 21-11-2023 recommended the following:

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

- i) Supporting document with layout plan for approach road and permission from concerned authority for usage.
- ii) NOC/permission from concerned authority for discharge of treated waste water into the nearby drains.
- iii) Brief write up on present road connectivity status to the proposed project.
- iv) Revisit the water balance to reduce the water discharge.
- v) Traffic study report vetted by institute of repute.
- vi) RL of ground water level during monsoon and rainy season, Plinth reduced level; Bottom reduced level of discharge pit, ground water level.
- vii) Structural stability certificate vetted by institute of repute.
- viii) Details of Fire Recommendations.

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

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

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Supporting document with layout plan for approach road and permission from concerned authority for usage.	Tahasildar Letter regarding Demarcation of land for Construction of Road from NH- 16 to Puri Main Canal (0/000 Km to 0/322 Km) over Plot No. 369 & Plot No. 370 is attached in Annexure-1.	Copy submitted
2.	NOC/permission from concerned authority for discharge of treated waste water into the nearby drains.	The treated waste water from Sewage Treatment Plant will be discharged to nearest municipal drain. WATCO has issued the NoC vide letter no. 2214, dated 14.02.2023 for Water & Sewerage connection to the proposed site.	NOC from WATCO who have clearly replied that as there is no water supply and sewage drains available, the PP

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		WATCO letter is attached in Annexure-2 and we have already submitted the EIDP Plan to the concerned authority. EIDP drawing is attached in Annexure-3.	needs to do necessary arrangements.
3.	Brief write up on present road connectivity status to the proposed project.	The present road connectivity to the proposed project site is near to the Puri main canal road which is connected to the project site.	-
4.	Revisit the water balance to reduce the water discharge.	Total fresh water requirement of the project is 103.0 KLD & flushing water requirement of the project is 53.0 KLD. Total wastewater generated from the project is 132.7 KLD which is treated in 150.0 KLD Sewage Treatment Plant & the treated water available from the STP is 126.0 KLD which is reused in Flushing (53.0 KLD), Dust Suppression (12.5 KLD), Landscaping (15.5 KLD) & 45.0 KLD treated water will be discharged to nearest drain. So we are reduced the treated waste water discharged to drain from 62.9 KLD to 45.0 KLD. Revised water balance is attached in Annexure-4.	Total Fresh water – 103.0KLD. Treated water discharge to drain in Monsoon period-62.9KLD and Non Monsoon Period – 45.0KLD
5.	Traffic study report vetted by institute of repute.	Traffic Study Report has been vetted by IIT Bhubaneswar on 14.02.2024. Vetted Traffic Study Report is attached in Annexure-5.	From the study, it is observed that there is an insignificant change (in the year 2034-2035) in the Level of Service (LOS) of the road (NH-16) due to the addition of traffic that is likely to be generated from the project site. As per Comprehensive Development Plan 2030 (CDP) prepared by IIT Kharagpur for greater Bhubaneswar, the

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
			road will be expanded, which will make the road more comfortable for the users and elevate the LOS of the road from very good to excellent status.
6.	RL of ground water level during monsoon and rainy season, Plinth reduced level; Bottom reduced level of discharge pit, ground water level.	A detailed contour survey has been made and drainage plan has been prepared. The height of the drain & Ground Level will be maintained. EIDP drawing is already attached in <b>Annexure-3</b> .	---
7.	Structural stability certificate vetted by institute of repute.	Structural Design has been vetted by Department of Civil Engineering, Indian Institute of Technology, Guwahati on 21.02.2024. Structural Stability Certificate is attached in <b>Annexure-6</b> .	---
8.	Details of Fire Recommendations.	The Fire Safety Clearance has been recommended by Odisha Fire Services vide recommendation letter no. RECOMM1101020042022000946, dated 08.12.2022. Recommendation letter is attached in <b>Annexure-7</b> .	---

19. The proposed site was visited by the sub-committee of SEAC on 29.03.2024. Following are the observations of the sub-committee:

- a) The site is connected to a road of about 200ft under construction by PWD which would connect the NH, PP to submit document in support of the same.
- b) The land was empty without any constructional activity
- c) There is a drain available at the side of the Canal Road which could be connected from the site. However, the PP needs to take permission for drain connection for discharge of storm and excess treated water from the appropriate authority before construction.
- d) Layout plan was explained by the PP along with details of building and safety corridor. It was advised to revise the gate width to 7.5 mt minimum, shops inside the premise to be operated only for residents and no commercial purpose.
- e) As the land is low lying, proper terrain management to be done to avoid water logging during rain.
- f) All other points asked during presentation to be complied.

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Environmental Scientist, SEAC

Considering the information furnished and the presentation made by the consultant, M/s Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per Annexure – E in addition to the following specific conditions. However, SEIAA, Odisha may consider to issue EC, after the Project Proponent submit an undertaking inform of legal affidavit that they shall make necessary arrangement to adopt Zero Liquid Discharge (ZLD) and / or construct drain for discharge of treated water, after acquiring land (Govt. or Private land) obtaining permission and possession as the case may be before going for construction of the project, as there is a drain available at the side of the Canal Road which could be connected from the site as observed during site visit and also same has been informed by the concerned authority to the Project Proponent.

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

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Environmental Scientist, SEAC

- xii) The width of the gate needs to be 7.5 mt minimum.
- xiii) Shops inside the premise to be operated only for residents and no commercial purpose.
- xiv) As the land is low lying, proper terrain management to be done to avoid water logging during rain.
- xv) Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.

**ITEM NO. 07**

**PROPOSAL FOR AMENDMENT OF ENVIRONMENTAL CLEARANCE OF M/S TRIDENT PROPERTIES PRIVATE LIMITED FOR RESIDENTIAL APARTMENT BUILDING OVER AN BUILTUP AREA 70174.61 SQM AT PAIKARAPUR, BHUBANESWAR, DIST- KHURDA OF MV SHASHI KUMAR – MOD EC.**

1. This proposal is for amendment of Environmental Clearance of M/s Trident Properties Private Limited for Residential Apartment Building over a built-up area 70174.61 sqm at Paikarapur, Bhubaneswar, Dist- Khurda of MV Shashi Kumar.
2. **Category:** As per EIA Notification,2006 and its subsequent amendments, the proposed project falls in category B under Schedule in activity 8 (a)- Building & Construction Project.
3. Earlier, Environment Clearance from SEIAA, Odisha was obtained vide letter no. 6361/SEIAA & File No. 27973/14-NCP-V/06-2018, dated 30.11.2018 for Proposed Construction of Residential Apartment Building located at Mouza - Paikarapur, Bhubaneswar, Dist- Khurda, Odisha.
4. Consent to Establish (CTE) has been obtained from OSPCB vide letter no. 13094/IND-II-CTE-6533, dated 28.07.2022.
5. BDA has approved the building plan vide letter no. 3446/BDA, Bhubaneswar, dated 06.02.2020. Revised BMC approval vide letter no. 20376/BMC, dated 27.04.2023.
6. Certified EC Compliance report of existing EC has been obtained from IRO Bhubaneswar vide letter no. 109-71/EPE/573, dated 09.06.2023.
7. The total FAR area of the project is 70,174.61 sqm.
8. **Justification of amendment:** The proponent proposes to amend the existing Environment Clearance because of decrease in the number of dwelling units by converting some blocks with 1 BHK & 2 BHK units to 3 BHK units, thus reducing the building footprint and built-up area. The proponent is converting 1 large block consisting 166 (EWS 1 BHK) units into 2 smaller blocks consisting of 16 (3 BHK) units each total 32 units reduction in built-up area. Further they seek an amendment in the built-up area from 70,174.61 sqm to 84,228.65 sqm because in the previous Environment Clearance Stilt parking area of 18638.85 sqm that was not added to the FAR area of 70174.61 sqm total built up area being 88813.36 sqm.

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9. **Location and connectivity:** The proposed site is located at Paikarapur, Bhubaneswar, Odisha. The Geographical coordinate of the project site is bounded by Latitude - 20° 15' 40.20" N & Longitude - 85° 44' 53.19" E. National Highway (NH-16) connecting Howrah-Chennai is about 3 Km away from the project site. The East Coast railway line runs at a distance of about 15 km from the project site. The Biju Patnaik Airport, Bhubaneswar is at a distance of about 13 Km from the project site.

10. **Comparative statement of area details of the project:**

Particular	As per Existing EC	Amendment of EC
Plot Area	42711.57 sqm	42095.4 sqm
Ground Coverage	17230.68 sqm (40.34%)	17230.68 sqm (40.34%)
Total FAR Area	70174.61 sqm	66824.76 sqm
Stilt Parking	18638.85 sqm	18749.30 sqm
Road Area	12013.56 sqm	19857.92 sqm
Open Parking	1310.34 sqm	2219.84 sqm
Total Parking Area	19949.19 sqm	20969.14 sqm
Green Belt Area	9715.93 sqm (22.74%)	9877.63 sqm (23.5%)
No. of Unit	500 + 166 EWS = 666 Nos.	580 Nos.
Total Builtup Area	FAR Area- 70174.61 sqm Stilt Parking- 18638.85 sqm Total Builtup Area- 88813.46 sqm	85574.06 sqm

11. **Power requirement:** The daily power requirement for the Residential apartment building is preliminarily assessed as 4607 KW (to be revise after ADS submission) source from TPCODL. To meet emergency power requirements during the grid failure, there is provision of DG set having 1x125 KVA + 1x15 KVA + 1x200KVA + 1x40 KVA + 1 x45 KVA capacity for power back up in the project.

12. **Water requirement:** Fresh make up of 304.1 KLD will be required for the project which will be sourced from Ground Water. Fresh Water consumption for the Residential People 3270 @ 90 lpcd = 294.3 m<sup>3</sup> /day, Flushing for Residential People 3270 @ 45 = 147.15 m<sup>3</sup> /day, Fresh Water Consumption for Floating People will be 327 nos @ 30 = 9.8 m<sup>3</sup> /day, Flushing for Floating People will be 327 @ 15 LPCD = 4.9 m<sup>3</sup> /day, for dust suppression and landscaping the required water will be 22.3 m<sup>3</sup> /day and 15.5 m<sup>3</sup> /day respectively.

Sl. No	Description	Total Population	Per Capita Consumption (ltr/day)	Total Water Requirement (KLD)
1.	Residential Population	3270 nos	90	294.3
2.	Floating Population	327 nos	30	9.8
TOTAL				304.1

13. **Wastewater management:** It is expected that the project will generate approx. 364.92 m<sup>3</sup>/day of wastewater. The wastewater will be treated in the STP of capacity of 400 m<sup>3</sup>/day

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provided within the complex. Out of which 214.85 m<sup>3</sup>/day (to be revise after ADS submission) will be recycled within the project for flushing (152.05 m<sup>3</sup>/day), landscaping (38.8 m<sup>3</sup>/day), Dust Suppression (24.0 m<sup>3</sup>/day), STP loss (20.0 m<sup>3</sup>/day) & 130.07 m<sup>3</sup>/day will be discharged to drain in case of non-monsoon period.

14. **Rainwater harvesting details:** Total runoff load from the project site will be 2056.21 m<sup>3</sup>/hr. Volume of each Recharge pit = 4m x 4m x 6m = 96.0 cum (approx.). So, No. of pits required= 2056.21 /96 = 21.4 say 22 nos. Total no. of Rain Water Harvesting pit provided for the proposed project is 22.0 Nos.
15. **Green belt development:** Green belt will be developed over an area of 9877.63 sqm (23.5 %) of the plot area; by using the local species like Radhachuda, Nageswar, Akash, Neem, Ashok, Polanga, Karang, Bela, Pijilu, Kaniara, Tagar, Hena, etc.
16. **Solid waste management:** From the hotel complex solid waste in form of food waste from kitchen and miscellaneous waste will be generated @ 0.4 kg/person/day, which will be about 1308.0 kg/day. The generated solid waste from the hotel complex will be segregated as biodegradable and non-biodegradable. This will be collected in separate-colored bins. Proper waste management practices will be adopted during the collection, storage and disposal of the generated solid waste and construction and demolition waste. Solid waste from sweeping and Dry Garbage containing non-biodegradable wastes like polythene bags, metal, ceramic Waste, glass etc. shall be stored in separate garbage bin and send to approved recyclers.

S. No.	Category	Counts (heads)	Waste generated (kg/day)
1.	Residents	3270 @ 0.4 kg/day	1308.0
2.	Road sweeping	3270 @ 0.1 kg/day	327.0
3.	STP Sludge	--	183.0
	<b>Total</b>		<b>1818.65</b>

#### Parking Details:

Parking Area Provided			
Stilt parking			18749.3 sqm
Open parking			2219.84 sqm
Total Parking			20969.14 sqm
Equivalent car space Provided			
	Area(sqm)	Area/ECS	
Stilt Parking	18749.3	28	670.0
Open Parking	2219.84	25	89.0
Total Parking Provided			759 ECS

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17. **Project cost:** Total cost estimated for the proposed project is Rs 125.0 Crores. EMP cost includes Capital Cost of Rs. 110 Lakhs and recurring cost of 11 lakhs.
18. **Environment Consultant:** The Environment M/s Centre for Envotech & Management Consultancy Pvt. Ltd., Bhubaneswar along with the proponent made a presentation on the proposal before the Committee.
19. The SEAC in its meeting held on dated **05-07-2023** recommended the following:
- A. The proponent may be asked to submit the following for further processing of EC application:
- Land documents of deleted and added up land for the proposed modification along with the ownership details and Kisam with its documentation.
  - Clarification on width of the road (EWS) and its percentage in terms of land used in the total project area.
  - Comparative statements of all the physical and environmental parameters in tabular form of both previous project for which EC obtained and proposed modification for which EC applied.
  - Ensure the difference between the reduced level of bottom of rain water harvesting pit and ground water and submit the report. It should be ensured that a proper gap/difference in level is maintained.
  - Power requirement - 800 KW mentioned in presentation and 4607 KW in Form-I. Which one is correct shall be clarified.
  - Waste water generation - 344.92 m<sup>3</sup>/day mentioned in Brief summary and 214.85 m<sup>3</sup>/day in presentation. Which one is correct shall be clarified.
- B. The proposed site shall be visited by Sub-Committee of SEAC to verify the followings
- Environmental settings of the project site.
  - To ensure how much construction activities has been completed.
  - Road connectivity to the project site.
  - Drainage network at the site.
  - Discharge point for discharge of treated waste water and distance of the discharge point from the project site.
  - Any other issues including local issues.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	Land documents of deleted and added up land for the proposed modification along with the	Land documents of deleted & added up land is attached in Annexure-1.	ROR submitted

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	ownership details and kism with its documentation.		
ii)	Clarification on width of the road (EWS) and its percentage in terms of land used in the total project area.	EWS block was provided with 6-meter wide road all around percentage groundcoverage 3.6%. Revised to 2 Blocks 1.44% groundcoverage respectively both together 2.88%, provided with 6-meter-wide road all around each block.	-
iii)	Comparative statements of all the physical and environmental parameters in tabular form of both previous project for which EC obtained and proposed modification for which EC applied.	Comparative Statement of the building is attached in Annexure-2.	complied
iv)	Ensure the difference between the reduced level of bottom of rain water harvesting pit and ground water and submit the report. It should be ensured that a proper gap/difference in level is maintained.		The query raised has not complied by PP.
v)	Power requirement – 800 KW mentioned in presentation and 4607 KW in Form-I. Which one is correct shall be clarified.	The Power requirement of the project is 800.0 KW. The comparative statement is attached in Annexure-2.	-
vi)	Waste water generation - 344.92 m <sup>3</sup> /day mentioned in Brief summary and 214.85 m <sup>3</sup> /day in presentation. Which one is correct shall be clarified.	Total waste water generation of the project is 381.8 KLD & the capacity of STP is 400 KLD. The comparative statement is attached in Annexure-2.	-

21. The proposed site was visited by the sub-committee of SEAC on 21.08.2023. Following are the observations of the sub-committee:

- a) The PP and the team explained the Layout of the site in presence of the Consultant.
- b) It was informed that due to the TP plan of the Govt, the PP had to surrender a block and relocate at another place with the same plan as per approval. Similarly, the buildings marked for EWS has been cancelled and in its place 2 blocks with new design have been proposed.
- c) It was observed that minor construction activity has been started in the block of EWS (Soil Excavation Foundation) and the new shifted block. PP may be asked to clarify why this cannot be considered as a Violation case? All other units are being constructed as per plan (S+4) as informed by PP.
- d) The PP informed that above are as per the revised plan obtained from BDA/BMC. The PP was informed to submit the copy of revised plan vetted by the authority and revised

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Environmental Scientist, SEAC

layout marking the changes and also land record (power etc) for the new relocated block.

- e) The site has approach road and the PP explained that they have to construct the drain till the Nallah as per the permission they have and is a part of EID. The PP was asked to submit the layout and permission letter in support of the drain beyond their land till the Nallah.
- f) Green belt is partly developed and they need to comply the norm including all conditions stipulated in EC earlier given.
- g) Since there will be 4 DG set and each will have stack separately, a lay out with calculation of stack height as per norm to be provided.
- h) The land was near low lying area. The PP needs to develop the project in a manner so that there will be no water logging.
- i) All other points asked during presentation to be submitted.

22. The SEAC in its meeting held on dated 13-11-2023 decided to take the decision on the proposal after receipt of the following information/documents from the proponent:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
1.	Ensure the difference between the reduced level of bottom of rain water harvesting pit and ground water and submit the report. It should be ensured that a proper gap/difference in level is maintained.	Detail feasibility report of proposed rain water harvesting pits and hydro geological status of the site is attached in Annexure - 1.
2.	It was observed that minor construction activity has been started in the block of EWS (Soil Excavation Foundation) and the new shifted block. PP shall clarify why this cannot be considered as a Violation case? All other units are being constructed as per plan (S+4) as informed by PP.	We had approval from BDA for 13 blocks of S+4 residential apartments and 1 block of G+1 society building which included the EWS block. We had started the construction of the EWS block. We halted the construction of the EWS block at foundation on receipt of notification that Govt land will be allocated by BDA for construction of EWS building, we have applied for and obtained the revised building plan by converting the single EWS block into 2 blocks of regular apartment and applied for revised EC for 15 Blocks of S+4 residential apartments and 1 block of G+1 society building. The construction observed in the new shifted block was piling work for the revised boundary wall.
3.	The PP informed that above are as per the revised plan obtained from BDA/BMC. The PP needs to submit the copy of revised plan vetted by the authority and revised layout marking the changes and also land record	Revised permission has been obtained from Bhubaneswar Municipal Corporation vide letter no. 2037/BMC, dated 27.04.2023 (Revised BMC permission is attached in Annexure-2). BMC approved building layout plan is

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Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent
	(power etc.) for the new relocated block.	attached in Annexure-3. Previous building master plan is attached in Annexure-4 and revised master plan with marking the changes is attached in Annexure-5. Development Agreement and General Power Attorney for the new relocated block is attached in Annexure -6.
4.	The site has approach road and the PP explained that they have to construct the drain till the Nallah as per the permission they have and is a part of EID. The PP needs to submit the layout and permission letter in support of the drain beyond their land till the Nallah.	Drainage plan has been vetted by Bhubaneswar Development Authority vide letter no. 681/EM/BDA, Bhubaneswar, dated 25.09.2025. Copy of letter from BDA regarding storm water drain connected to the Nallah is attached in Annexure -7.
5.	Since there will be 4 DG sets and each will have stack separately, a lay out with calculation of stack height as per norm to be provided.	The height of the building is 14.95 m and the stack height of the DG set is 17.50 m which is 2.55 m above from the building height. A Layout plan showing the DG location with stack height is attached in Annexure-8.

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

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

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- viii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- ix) The PP will not commence construction unless the drain lay out is finalized and permission given for the same by the authority to discharge excess treated water & storm water.
- x) 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 OF AMENDMENT ENVIRONMENTAL CLEARANCE OF M/S. SHUVAM CONSTRUCTION PVT LTD FOR 2B+G+14 HIGH RISE RESIDENTIAL APARTMENT BUILDING OVER AN BUILT-UP AREA 59578.43 SQM IN MOUZA- GHATIKIA, BHUBANESWAR, DIST.- KHURDA OF SRI KANTILAL PATEL – MOD- EC**

1. This proposal is for Amendment Environmental Clearance of M/s. Shuvam Construction Pvt Ltd for 2B+G+14 High Rise Residential apartment building over an built up area 59578.43 sqm in Mouza- Ghatikia, Bhubaneswar, Dist.- Khurda of Sri Kantilal Patel.
2. **Category:** The project falls under category "B" or activity 8 (a)-Building & Construction Project under EIA Notification dated 14<sup>th</sup> September 2006 as amended from time to time.
3. **Location and Connectivity:** The project is located at Mouza- Ghatikia, Bhubaneshwar, District-Khurda, Odisha bounded by Latitude: 20°16'15.78"N and Longitude: 85°46'44.81"E. The Nearest Highway is NH-16 which is 1.44 km from the project site in East direction; NH-316 is 6.70 km towards SE direction, SH-13 is 14.45 km towards SSW direction. Ghatikia Main Road is at a distance of 0.80 km in North direction. The nearest Railway Station is Retang Railway Station at 8.36 km in South direction. Biju Patnaik International Airport Bhubaneswar is at 3 km in ESE direction from project site.
4. Earlier, Environment Clearance was granted by SEIAA, Orissa vide EC Identification No. EC22B038OR134872 dated 22nd July,2022 for Plot area = 10,732.17 sqm (2.652 acre) and Built-up area =56,722.86 sqm.
5. Due to proposed amendment, the plot area will change from 10,732.17 to12,443.97 sqm & BUA will change from 56,722.86 to 59,578.43 sqm.
6. **Comparative statement of amendment:**

S. NO.	PARTICULARS	EXISTING AS PER EARLIER EC	PROPOSED AMENDMENT	TOTAL AFTER PROPOSED AMENDMENT
1	Total Plot Area (m <sup>2</sup> )	10,732.17	1711.8	12,443.97
	• Future Development Area	--	1343.54	1,343.54
	• Total Road Area	--	594.88	594.88
	• Acquisition of	--	364.21	364.21

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	Sewerage board			
2.	Net Plot Area	10,732.17	-590.83	10,141.34
3.	Permissible Ground Coverage	6,439.3 (@60% of the plot area)	-354.496	6,084.804 (@60% of the net plot area)
4.	Proposed Ground Coverage	3,053.12 (@ 28.55% of the plot area)	-92.68	2960.44 (@29.19% of the net plot area)
5.	Permissible FAR	75,125.19 (@7 of the plot area)	-4135.81	70,989.38 (@7 of the net plot area)
6.	Proposed FAR	44,996.50 (@ 4.192 of the plot area)	-1674.17	43,322.33 (@ 4.271 of the net plot area)
7	Non FAR (Fire Tower, Balcony & Basement Area)	11,726.36	4529.74	16,256.1
8	<b>Total Built Up Area (6 +7+ 8)</b>	<b>56,722.86</b>	<b>2,855.57</b>	<b>59,578.43</b>
9	Green Area Proposed	2641.18 (@24.16% plot area)	-612.92	2028.26 (@20% of net plot area)
10	Maximum Height of the Building up to terrace level (meter)	50.93 (G+14)	--	50.26 (G+14)
11	Population (Nos.)	1672	194	1866
12	Total Water Requirement (KLD)	212	22	234
13	Domestic Water Requirement (KLD)	141	85	226
14	Fresh Water Requirement (KLD)	141	8	149
15	Wastewater Generation (KLD)	180.16	15.84	196
16	STP Capacity (KLD)	200	40	240
17	Rainwater Harvesting Pits (Nos.)	14	20	34
18	Parking provided	22,308.36 sqm	-9,234.48 sqm	13,073.88 sqm
19	Power requirement (kW)	1482	118	1600
20	D.G sets	1000 kVA (2x 500)	-500kVA (-250 kVA )	500 kVA (2x 250)
21	Solid waste generation (kg/day)	796.8	90.2	887
22	Project cost (INR)	95 Crores	57 Crores	152 Crores

7. **Building details:** There will be a residential tower (288 Dwelling units) with common amenity area. The maximum height of the Tower will be 50.26 m. The total plot area is 12,443.97 sqm and Net plot area is 10,141.34 sqm. The permissible ground coverage will be 6,084.804 sqm (60% of the net plot area) and proposed Ground Coverage will be 2,960.44 sqm (29.19% of

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Environmental Scientist, SEAC

the net plot area). The permissible FAR will be 70,989.38 sqm (@7.0 of net plot area) and proposed FAR will be 43,322.33 sqm(@4.271 of net plot area). The Non-FAR for the project will be 16,256.1sqm. Total Built up area for the project will be 59,578.43 sqm. The total population of project after proposed will be 1,866 persons.

8. **Water Requirement:** The total water requirement will be met through Ground water and Bore well which is approx. 234 KLD, total domestic water requirement is 226 KLD. Out of which fresh water requirement is approx. 149 KLD, & flushing water will 77 KLD.

S. No.	Description	Occupancy	Rate of water demand (lpcd)		Total Water Requirement (KLD)		
			Fresh	Flushing	Fresh	Flushing	Total
A.	Domestic Water						
	• Residents	1623	90	45	146.07	73.03	219.1
	• Staff	81	25	20	2.02	1.62	3.64
	• Visitors	162	5	10	0.81	1.62	2.43
					148.9 KLD say 149 KLD	76.27 KLD say 77KLD	225.17 KLD say 226 KLD
<b>Total Domestic Water = 226 KLD</b>							
B.	Horticulture	2028.26 m <sup>2</sup>	4 l/sqm		8 KLD		
<b>Grand Total (A+B+C) = 234 KLD</b>							

9. **Waste water details:** The project will generate approx. 196 KLD of waste water. The waste water will be treated in an onsite STP of 240 KLD capacity. The treated effluent will be reused for flushing & horticulture. Surplus treated effluent will be discharged to external sewer.

Domestic Water Requirement	234 KLD
• Fresh	149 KLD
• Flushing	77 KLD
Waste water [@80% fresh + 100% flushing]	119.2 + 77= 196 KLD
STP Capacity (20 % higher than waste water)	240 KLD

10. **Comparative water calculation:**

S. No.	Description	Value as per earlier EC	Proposed Amendment	Total Quantity (EC accorded + Amendment)
1.	Total Water Requirement	212	+22	234

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2.	Domestic Water Requirement	141	+85	226
3.	Fresh Water Requirement	141	+8	149
4.	Wastewater Generation	180.16	+15.84	196
5.	STP Capacity	200	+40	240

11. **Rainwater harvesting details:** Total 34 RWH pits at different locations will be constructed for the proposed project.

12. **Parking details:** Total parking proposed is 146(LB)+142(UB)+43(Stack UB) = 331 ECS.

13. **Power Requirement:** The power supply will be supplied by State Electricity Board. The requirement load for the project will be 1,600 kW. There is provision of 2 nos. of DG sets total 500 kVA capacity (i.e. 2 x 250 KVA) for power back up. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion. Total solar power as per the following table.

S. No.	DESCRIPTION	SAVINGS (kVA)
1.	Solar based Lighting will be done in the common areas, stair cases, landscape areas, signage, entry gates and boundary walls etc. (5% from total power load) Norms for Rooftop PV systems Installation: Solar power back of a minimum generation capacity of 5% of the connected load (OR) 20 Watts/sq.ft on available roof space, whichever is less.	50 kVA
2.	LEDs will be used in all dwelling units.	22.5 kVA
3.	Outdoor and common are lighting shall be LED	7.5 kVA
<b>Total Energy Saved</b>		<b>80 kVA</b>
<b>Total Power load = 1,600 kVA</b>		
<b>Energy saved through various provisions =80 kVA TOTAL ENERGY SAVING = 10 %</b>		

14. **Solid waste management:** The total solid waste generation will be 887 kg/day.

S. No.	Description	Occupancy	Waste Generated (kg/capita/day)	Waste Generated (kg/day)
1.	<b>Domestic Solid Waste</b>			
	• Residents	1623	0.5	811.5
	• Staff (Maintenance, Club house, Departmental Store)	81	0.3	24.3
	• Visitors (Maintenance, Club house, Departmental Store)	162	0.15	24.3

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2.	Horticultural Waste (0.5 acre)	@ 0.2 kg/acre/day	0.1
3.	STP Sludge	Waste water x 0.35 x B.O.D difference/1000	26.754
<b>Total Solid Waste Generation = 887 kg/day</b>			

15. **Greenbelt:** Total green area measures 2,028.26 m<sup>2</sup> i.e. 20% of the net plot area. No. of trees required = 1 tree/80 sq.m. of net plot area = 10141.34/80 = 126.766 say 127 Nos. So, total no. of trees proposed is 127 Nos.

S. No.	Botanical Name	Numbers
1	<i>Alstoniascholaris</i>	29
2	<i>Lagerstroemia flosreginae</i>	23
3	<i>Azadirachtaindica</i>	20
4	<i>Mimusopselengi</i>	28
5	<i>Tamarindusindica</i>	5
6	<i>Syzygiumcumini</i>	10
7	<i>Mangiferaindica</i>	12
<b>Total</b>		<b>127</b>

16. **Project cost:** Total Project cost is estimated to be INR 152 Cr. Including land and development cost.

**Table: ENVIRONMENT MANAGEMENT PLAN COST (OPERATION)**

COMPONENT	CAPITAL COST (INR LAKH)	RECURRING COST (INR LAKH/YR)
Sewage Treatment Plant	50	6
Rain Water Harvesting Pits	35	6
Solid Waste Management	2.5	5
Environmental Monitoring	0	10
Green Area/ Landscape Area	3	0.75
Others (Energy saving devices, miscellaneous)	10	0.25
<b>Total</b>	<b>100.5</b>	<b>28.0</b>


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

18. The SEAC in its meeting held on dated 21-11-2023 recommended the following:

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

- i) Clarify exactly what the proponent is increasing both in auxiliary and mainstream.
- ii) Detailed area breakup for balcony, fire tower and basement.

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- iii) Comparative table for previous EC condition and present revised proposal w.r.t. all the changeable parameters. Additionally, incorporate remarks column to specify the reason for change.
- iv) NOC/ Permission from concerned authority for discharge of excess treated waste water. Further, submit the copy of application submitted for proposed drain plan from Bhubaneswar Development Authority for drainage discharge.
- v) Justification for reduction in DG set capacity.
- vi) Increase the greenbelt area upto 20% of the total plot area as per the norms.

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

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

19. 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.	Clarify exactly what the proponent is increasing both in auxiliary and mainstream.	Post amendment, the plot area will increase from 10,732.17 to 12,443.97 sqm & Built-up area will increase from 56,722.86 to 59,578.43 sqm. A comparative table w.r.t. all the changeable parameters along with the reason for change is enclosed as <b>Annexure-I.</b>	-
2.	Detailed area breakup for balcony, fire tower and basement.	Detailed area statement is enclosed as <b>Annexure-II.</b>	-
3.	Comparative table for previous EC condition and present revised proposal w.r.t. all the changeable parameters. Additionally, incorporate remarks column to specify the reason for change.	Comparative table w.r.t. all the changeable parameters along with the reason for change is enclosed as <b>Annexure-I.</b>	-
4.	NOC/ Permission from concerned authority for discharge of excess treated waste water. Further, submit the copy of application submitted for	NOC from concerned authority for discharge of excess treated waste water is enclosed as <b>Annexure-III.</b> The copy of application submitted for	NOC from concerned authority for discharge of storm

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Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	proposed drain plan from Bhubaneswar Development Authority for drainage discharge.	proposed drain plan from Bhubaneswar Development Authority for drainage discharge is enclosed as <b>Annexure-IV</b> .	water has been accepted. Drainage Layout Plan is submitted.
5.	Justification for reduction in DG set capacity.	The D.G capacity mentioned in earlier EC was incorrect. It has now been corrected in the current EC application.	---
6.	Increase the greenbelt area upto 20% of the total plot area as per the norms.	Landscape plan showing 20% of green area is enclosed as <b>Annexure- V</b>	---
<b>Reply to Site visit points</b>			
8.	Environmental settings of the project site.	Chandaka Dampara WLS is at the distance of 2km towards North direction from the project site. DFO NOC has been obtained from competent authority and copy of the same is enclosed as <b>Annexure- VI</b> . There is no other ecologically sensitive location near the project site.	---
9.	Verify if the site is a flood prone area.	Project Site does not located in flood prone area.	---
10.	Construction activity if any started at the site and extent of construction activity.	No construction has been started yet.	---
11.	Road connectivity to the project site.	The connecting road is Ghatikia Main Road which is 0.8 km towards North from the project site. The Nearest Highway is NH-16 which is approx. 1.44 km in east direction from the project site, NH-316 is approx. 6.7 km (SE) away from the project site.	---
12.	Drainage network at the site.	Waste water discharge plan showing drain connectivity is attached as <b>Annexure- IV</b> .	---
13.	Discharge point for discharge of treated water and distance of the discharge point from the project site.	Details provided above in point no. 15.	---
14.	Any other issues including local issues.	No other issues.	---
15.	PP should submit the revenue map showing the connecting road to the project site	Revenue map showing the connecting road to the project site is attached as <b>Annexure - VII</b>	---

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

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- a) The Project site is located in Ghatikia Bhubaneswar. The PP and Consultant were present and explained the layout.
- b) There is no construction in the project site.
- c) There is no blacktop road to site but a kacha road is connecting from the main road. PP informed that it is a 60 ft road connecting to main road. They need to submit the drawing on revenue map with BMC authentication or clarification about the 60 ft road and the sketch to be submitted to SEAC.
- d) Also, BMC permission to develop the 60 ft road if any along with permission for constructing drain in road side to connect to the existing NALA which is at a distance of around 100 mts distance, for discharge of excess treated water and storm water.
- e) All other points asked during presentation to be complied.

Considering the information furnished and the presentation made by the consultant, M/s Grass Roots Research & Creation India (P) Ltd., Noida along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per Annexure – G 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 obtain BMC permission to develop the 60 ft road if any along with permission for constructing drain in road side to connect to the existing NALA which is at a distance of around 100 mts distance, for discharge of excess treated water and storm water.
- iv) The proponent shall use solar energy at least to the tune of 5%of total power requirement as proposed.
- v) The proponent shall obtain permission from concerned Fire Safety Authority.
- vi) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- vii) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- viii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- ix) The PP needs to stick to the EC conditions and BDA approval for both phases (earlier one ongoing and new one yet to be started) as far as construction details are concerned and other conditions.

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Environmental Scientist, SEAC

- x) Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.
- xi) 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. 09**

**PROPOSAL FOR AMENDMENT ENVIRONMENTAL CLEARANCE OF M/S. UNITED CONSTRUCTION CORPORATION FOR PROPOSED AMENDMENT IN RESIDENTIAL PROJECT OVER A BUILT-UP AREA 24,689.58 M2 AT MOUZA- BADARAGHUNATHPUR, TEHSIL- JATANI, DISTRICT KHURDA, BHUBANESWAR OF SRI TAPAN KUMAR MOHANTY – MOD- EC**

1. This proposal is for Amendment Environmental Clearance of M/s. United Construction Corporation for proposes Amendment in residential project over an built up area 24,689.58 m<sup>2</sup> at Mouza- Badaraghunathpur, Tehsil- Jatani, District Khurda, Bhubaneswar of Sri Tapan Kumar Mohanty.
2. **Category:** This project falls under Category "B", Project or Activity 8(a) Building and Construction projects as per EIA Notification dated 14th Sept, 2006 as its amendments.
3. The project was earlier granted Environmental Clearance by SEIAA Odisha vide EC Identification No.: EC22B038OR134759, SEIAA File No.: 230678/50-MIS/09-2021 dated 06/05/2022.
4. The earlier sanctioned Built-up area as per the above-said EC letter was 24,601.44 m<sup>2</sup> which has now changed to 24,689.58 m<sup>2</sup>. The total plot area remains the same i.e. 9,124.19 sqm.
5. **Location and connectivity:** The Project site is located at Khata Nos. 270/3122, 270/3123, 400/3933, 400/3934 of Mouza- Badaraghunathpur, Tehsil- Jatani, District Khurda, Bhubaneswar, Odisha. The geo coordinates of the project is Latitude: 20°13'46.47"N and Longitude: 85°43'43.95"E. The Nearest Highway is NH-16 which is 2.4 km (SE) away from project site, SH-13 is at 7.5 km (SSW) away from project site, NH-57 which is 10 km (SSW) away from project site, NH-316 which is 13.0 (E) away from project site. The nearest Railway Station is Retang Railway Station, 4.7 km (SE) away from the project site. The nearest Airport BijuPatnaik International Airport, Bhubaneswar is at 8.7km (ENE) from the project site.
6. Total Plot area measures 9,124.19m<sup>2</sup> and the proposed built-up area is 24,689.58 m<sup>2</sup>.
7. There will be a residential tower of 132 dwelling units with common amenity area. The maximum height of the Tower 17.60 m.

**Area Statement:**

S. No.	PARTICULARS	AREA (sq.m.)
i)	Total plot area	9,124.19
ii)	Permissible Ground coverage (@50% of plot area)	4,562.095

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Environmental Scientist, SEAC

S. No.	PARTICULARS	AREA (sq.m.)
iii)	Proposed Ground coverage (@47.57% of the plot area)	4,340.377
iv)	Permissible FAR (@3.0 of the Net plot area)	27,372.57
v)	Proposed FAR (@ 2.08 of Net plot area)	19,019.39
vi)	Non-FAR area	5,670.19
vii)	<b>Total Built-up Area</b>	<b>24,689.58</b>

8. The total population of project after proposed will be 888 persons.

**9. Comparative statement of amendment:**

S.NO.	PARTICULARS	EXISTING AS PER EARLIER EC	PROPOSED AMENDMENT	TOTAL AFTER PROPOSED AMENDMENT
1	Total Plot Area (m <sup>2</sup> )	9,124.19 (2.25Acres)	--	9,124.19 (2.25Acres)
2	Proposed Ground Coverage (m <sup>2</sup> )	3,260.073 (35.73% of plot area)	1,080.304	4,340.377 (47.57% of plot area)
3	Proposed FAR (m <sup>2</sup> )	19,502.70 (@2.14 of plot area)	-483.31	19,019.39 (@2.08 of plot area)
	a) Residential FAR (m <sup>2</sup> )	15,105.38	-265.03	14,840.35
	b) Common area FAR (m <sup>2</sup> )	4,397.32	-218.28	4,179.04
4	Non FAR area (m <sup>2</sup> )	5,098.74	571.45	5,670.19
	a) Mumty+ Service area (m <sup>2</sup> )	714.21	615.51	1,329.72
	b) Stilt area (m <sup>2</sup> )	4,384.53	-44.06	4,340.47
5	<b>Built-up Area (m<sup>2</sup>)</b>	<b>24,601.44</b>	<b>88.14</b>	<b>24,689.58</b>
6	Landscape Area (m <sup>2</sup> )	3,021.93 (33.12% of plot area)	-228.64	2,793.29 (30.61% of plot area)
7	Maximum Height of the Building (m)	14.95	2.65	17.60
8	No. of Dwelling unit	186	-54	132
9	Project Cost	INR57.942Crore	INR3.775Crore	INR61.717Crore

S.No.	Particulars	Existing As Per Earlier EC	Proposed Amendment	Total After Proposed Amendment
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10	Population (Nos.)	1070	-182	888
11	Total water demand (KLD)	141	-21	120
12	Domestic Water Demand (KLD)	129	-21	108
13	Fresh water (KLD)	85	-14	71
14	Flushing water (KLD)	44	-7	37
15	Waste water (KLD)	112	-18	94
16	STP Capacity (KLD)	135	-5	130
17	Rainwater Harvesting Pits (Nos.)	11	13	24
18	Parking	228ECS	-72ECS	154ECS
19	Parking Area	6275m <sup>2</sup>	-1,338.86m <sup>2</sup>	4,936.14m <sup>2</sup>
20	Power Requirement	760kVA	356kVA	1116kVA
21	DG Sets	1x225kVA	-45kVA	1x180kVA
22	Solid waste generation (kg/day)	503	-83	420

10. **Water requirement:** The total water requirement will be met through Ground water and Bore well which is approx. 120 KLD, total domestic water requirement is 108 KLD. Out of which fresh water requirement is approx. 71 KLD, & flushing water will 37 KLD.

S.No.	Description	Occupancy	Rate of water demand (lpcd)		Total Water Requirement (KLD)		
			Fresh	Flushing	Fresh	Flushing	Total
A.	<b>Domestic Water</b>						
	Residents	772	90	45	69.48	34.74	104.22
	Staff	39	25	20	0.97	0.78	1.75
	Visitors	77	5	10	0.38	0.77	1.15
					71KLD	37KLD	108KLD
<b>Total Domestic Water =108KLD</b>							
B.	Horticulture	2,793.29m <sup>2</sup>	4l/sqm		11.17KLDsay12KLD		
<b>Grand Total(A+B) =120KLD</b>							

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*Jwajak*  
Environmental Scientist, SEAC



11. **Wastewater details:** The project will generate approx. 94 KLD of wastewater. The wastewater will be treated in an onsite STP of 130 KLD capacity. The treated effluent will be reused for flushing & horticulture. Surplus treated water of 36KLD in Summer season and 46KLD in Monsoon season will be discharged to external sewer.

<b>Domestic Water Requirement</b>	<b>108KLD</b>
• Fresh	71KLD
• Flushing	37KLD
<b>Wastewater[@80%fresh+100%flushing]</b>	<b>57+37 =94KLD</b>
<b>STP Capacity</b>	<b>130KL</b>

S.No.	Description	Value as per earlier EC (KLD)	Proposed Amendment (KLD)	Total Quantity (EC accorded + Amendment) (KLD)
1.	Total water demand	141	-21	120
2.	Domestic Water Demand	129	-21	108
3.	Freshwater	85	-14	71
4.	Flushing water	44	-7	37
5.	Wastewater	112	-18	94
6.	STP Capacity	135	-5	130

12. **Rainwater harvesting details:** Total 24 nos. of Rainwater harvesting pits will be provided for storage of rain water.

13. **Parking details:** Total parking proposed is 145(Stilt) + 9(Surface) = 154 ECS. As per Bhubaneswar development authority bye-laws: Total required parking (25% of Proposed F.A.R) comes to be 4,754.85 m<sup>2</sup> which includes 4,279.35 m<sup>2</sup> for residents and 475.49 m<sup>2</sup> for visitors (10% of Total Parking area). Total Parking area proposed – 4936.14 m<sup>2</sup>.

20. **Power Requirement:** The requirement load for the project will be 1,116 kVA. The power supply will be supplied by State Electricity Board. There is provision of 1 nos. of DG sets total 180 kVA capacity for power back up. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height (30m) for proper dispersion. Total solar power as per the following table.

S.No.	DESCRIPTION	SAVINGS (kVA)
1.	Solar based Lighting will be done in the common areas, stair cases, land scape areas, signage, entry gates and boundary walls etc. (5% from total power load) Norms for Rooftop PV systems Installation: Solar power back of a minimum generation capacity of 5% of the connected load (OR)20 Watts/sq.ft on available roof space, whichever is less.	35kVA
2.	LEDs will be used in all dwelling units.	15.8kVA
3.	Outdoor and common area lighting shall be LED	5kVA
<b>Total Energy Saved</b>		<b>55.8 kVA</b>

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*Trayal*  
Environmental Scientist, SEAC

Total Power load=1,116kVA  
Energy saved through various provisions  
=55.8 KWATOTALENERGYSAVING = 10%

**Comparative Power Requirement (EC accorded + Amendment)**

	EC accorded	Expansion	Total (EC accorded + Amendment)
<b>Power Requirement</b>	760kVA	+356kVA	1,116kVA
<b>D.G sets</b>	1x225kVA	-45kVA	1x180kVA

14. **Solid waste generation:** The total solid waste generation will be 420 kg/day for the proposed project. Approx. of solid waste would be generated 420 kg per day (@ 0.25 kg per capita per day for staff, @0.15 kg per capita per day for the visitor, 0.5 kg capita per day resident and landscape waste @0.2 kg/acre/day and STP Sludge). The solid waste will be collected and then segregated at source. Adequate number of colored bins (green, blue & dark grey) separate for bio-degradable and non-biodegradable are proposed to be provided at the strategic locations within the site. STP sludge is proposed to be used for horticultural purpose as manure. Horticultural Waste/ Biodegradable waste will be composted by Organic Waste Converter. 50 sqm area has been proposed for OWC. Spent oil from DG sets will be sold to CPCB authorised recyclers.

S.No.	Category	Norms (Kg/capita/day)	Waste generated (kg/day)
1.	Residents (772)	@0.5	386
2.	Staff (39)	@0.25	9.75
3.	Visitors (77)	@0.15	11.55
4.	Landscape waste (0.69acre)	@0.2kg/acre/day	0.138
5.	STP sludge	Waste water x 0.35x B.O.D difference/1000	12.83
<b>TOTALSOLIDWASTE</b>			<b>420kg/day</b>

**Comparative Solid Waste Details**

Solid Waste Generation	EC accorded (kg/day)	Proposed Amendment (kg/day)	Total (EC accorded+ Amendment) (kg/day)
	503	-83	420

15. **Greenbelt:** Total green area measures 2,793.29 m<sup>2</sup> i.e. 30.61% of the net plot area. No. of trees required = 1 tree/80 sqm of plot area = 9,124.19/80 = 114 nos. Total no. of trees proposed = 150 trees.

16. **Project cost:** Total estimated cost of the proposed project is Rs.61.717 Cr. including land and development cost.

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*J. Nayak*  
Environmental Scientist, SEAC

## ENVIRONMENT MANAGEMENT PLAN COST (OPERATION)

COMPONENT	CAPITALCOST (INRLAKH)	RECURRINGCOST (INRLAKH/YR)
Sewage Treatment Plant	15	8
Rain Water Harvesting Pits	10	0.50
Solid Waste Management	2.5	1
Environmental Monitoring	0	10
Green Area/Landscape Area	2.5	0.50
Others (Energy saving devices, miscellaneous)	10	0.15
<b>Total</b>	<b>40</b>	<b>20.15</b>

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

18. The SEAC in its meeting held on **21-11-2023** recommended the following:

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

- i) Detailed justification w.r.t. to all environment parameters for increase in built-up area and non-FAR area.
- ii) Comparative table for previous EC conditions and present revised proposal w.r.t. all the changeable parameters. Additionally, incorporate remarks column to specify the reason for change.
- iii) Submit write-up regarding increase in power requirement.
- iv) Submit the permission/application copy for discharge of excess treated water to the drainage.
- v) Submit the EMP plan along with capital and recurring cost.
- vi) The proponent shall clarify whether the recurring cost shall be borne by the developer or the management of society.

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

- i) Environmental settings of the project site.
- ii) Verify if the site is a flood prone area.
- iii) Construction activity if any started at the site and extent of construction activity.
- iv) Road connectivity to the project site.
- v) Drainage network at the site.

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*Jwajak*  
Environmental Scientist, SEAC

- vi) Discharge point for discharge of treated water and distance of the discharge point from the project site.
- vii) Any other issues including local issues.

19. 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.	Detailed justification w.r.t. to all environment parameters for increase in built-up area and non-FAR area.	Comparative table w.r.t. all the changeable parameters along with justification for the same is enclosed as <b>Annexure-I.</b>	complied
2.	Comparative table for previous EC conditions and present revised proposal w.r.t. all the changeable parameters. Additionally, incorporate remarks column to specify the reason for change.	Comparative table w.r.t. all the changeable parameters along with justification for the same is enclosed as <b>Annexure-I.</b>	complied
3.	Submit write-up regarding increase in power requirement.	Earlier, we had proposed only 2 BHK flats but now we are also proposing 3 BHK flats which have more demand load per unit. Therefore, there is an increase in power requirement. Revised calculation of power load is attached as <b>Annexure-II.</b>	complied
4.	Submit the permission/application copy for discharge of excess treated water to the drainage.	Permission for discharge of excess treated water to the drainage has been obtained from competent authority and copy of the same is attached as <b>Annexure-III.</b>	Copy sent to Planning Member, BDA, BBSR for vetting of Drainage and Sewerage Plan of the project under EIDP by the CE-cum – EM, BDA, BBSR has been submitted.
5.	Submit the EMP plan along with capital and recurring cost.	The capital cost for Environmental Management is estimated to be INR 40 lakh. Approx. INR 20.15 lakh/year will be the annual recurring expenses. Break-up of EMP budget is enclosed as <b>Annexure-IV.</b>	Complied
6.	The proponent shall clarify whether the recurring cost shall be borne by the developer or the management of society.	Undertaking regarding the same is enclosed as <b>Annexure-V</b>	-

The proposed site was visited by the sub-committee of SEAC on 26.12.2023. Following are the observations of the sub-committee:

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Environmental Scientist, SEAC

- a) The Project site is located in Badaraghunathpur, Bhubaneswar. The PP and Consultant were present and explained the layout.
- b) There is no construction in the project site. It is approachable by a revenue type of road of about 30 ft width.
- c) The PP needs to submit the document with layout for the approach road connecting to main high way with authentication.
- d) There is a Nala existing away in about 100 mts. So, permission from the authority to develop the road and drain in the side of the road along with permission for constructing drain in road side to connect to the existing NALA, for discharge of excess treated water and storm water.
- e) PP to target for ZLD.
- f) PP to ascertain fire corridor width and green belt (minimum 20%). Since the land is lengthy, a fire corridor in between may be desirable, however this may be approved from fire authority.
- g) Parking details as per MOEF guideline to be complied and submitted with provisions for visitors parking.
- h) All other points asked during presentation to be complied.

Considering the information furnished and the presentation made by the consultant, **M/s Grass Roots Research & Creation India (P) Ltd., Noida** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per Annexure – H in addition to the following specific conditions. **However, SEIAA, Odisha may consider to issue EC after submission of the layout showing connection of site with main road by the proponent.**

- 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 obtain BMC permission to develop the 60 ft road if any along with permission for constructing drain in road side to connect to the existing NALA which is at a distance of around 100 mts distance, for discharge of excess treated water and storm water.
- iv) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.
- v) The proponent shall obtain permission from concerned Fire Safety Authority.
- vi) Trees located within the project area shall be transplanted to alongside the boundary green development area.

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Environmental Scientist, SEAC

- vii) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- viii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- ix) The PP needs to stick to the EC conditions and BDA approval for both phases (earlier one ongoing and new one yet to be started) as far as construction details are concerned and other conditions.
- x) Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.
- xi) PP to ascertain fire corridor width and green belt (minimum 20%). Since the land is lengthy, a fire corridor in between shall be provided and same shall be approved from fire authority.
- xii) Parking shall be provided as per MOEF guideline with provisions for visitors parking.
- xiii) Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.
- xiv) Total ground coverage is shown to be 47.57% and the same shall be limited to maximum 40%.
- xv) 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. 10**

#### **PROPOSAL FOR ENVIRONMENTAL CLEARANCE OF M/S GD CONSTRUCTIONS FOR RESIDENTIAL APARTMENT BUILDING 'ARKA HEIGHTS' WITH TOTAL BUILT- UP AREA 35,393.31M<sup>2</sup> AT MOUZA - HALADIAPADAR, TAHASIL - KANISI, DISTRICT - GANJAM OF SRI BIKRAM KUMAR PANIGRAHI – EC**

1. This proposal is for Environmental Clearance of M/s GD Constructions for Residential Apartment Building 'Arka Heights' with total built-up area 35,393.31m<sup>2</sup> at Mouza - Haladiapadar, Tahasil - Kanisi, District - Ganjam of Sri Bikram Kumar Panigrahi.
2. **Category:** As per the EIA Notification, 2006 and its subsequent amendments, the proposed project falls under 8 (a): Building & Construction projects.
3. **Location and Connectivity:** The project site is located at Plot No.- 2209, Khata No. 227, Mouza-Haladiapadar, Tehsil - Kanisi, District - Ganjam, Odisha. The geographical co-ordinates of project site are 19°17'05.97"N and 84°46'52.37"E and the project is a part of the Survey of India Toposheet no. E45A15. The Gosaninuagan Road is at 0.25 km towards NE direction. The nearest Highway is NH-16 which is 0.7 km towards SSE direction, NH-59 is 3.6 km towards NE direction, NH-516 is 7.2 km towards ENE direction, NH-516A is 12.1 km towards East direction, SH-22 is 3 km towards NW direction, SH-17 is 4.5 km towards N

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*Trayak*  
Environmental Scientist, SEAC

direction, SH-32 is 9.8 km towards ENE direction and SH-36 is 14.2 km towards NE direction. The nearest Railway Station is Berhampur Railway Station is about 2 km (NE) away from the project site. Nearest airport is Biju Patnaik International Airport is at 151.5 km (NE) from project site.

4. The site is coming under Brahmapur Development Authority.
5. The plot area is 7,768.56 m<sup>2</sup> (1.92 acres) with total built-up area 35,393.31 m<sup>2</sup>.
6. **The Building Area Details of the Project is:**

S. No.	Particulars	Area (m <sup>2</sup> )
i)	Total Plot Area	7,768.56
	Road Widening	275.92
	Net plot area	7,492.64
ii)	Permissible Ground Coverage (@ 40 % of the net plot area)	2,997.056
iii)	Proposed Ground Coverage (@30.63 % of the net plot area)	2,294.995
iv)	Permissible FAR (@4.00)	29,970.56
v)	Proposed FAR (@3.49)	26,149.313
vi)	Non FAR Area	9,243.997
vii)	Built-up Area (5+6)	35,393.31
viii)	Proposed Parking	8,367.38
ix)	Landscape Area (@ 20% of net plot area)	1,486.528
x)	Maximum Height of the Building (m)	41.6 m

7. **Water Requirement:** In ADS revised water balance has been submitted. Fresh water requirement is now-106KLD. The treated effluent will be reused for flushing & horticulture. 68 KLD Surplus treated effluent will be discharged to external sewer in monsoon and 58 KLD in summer season.
8. **Water Requirement was submitted during presentation** - During operation phase, the source of water supply will be Ground water. The total water requirement for the project will be approx. 166 KLD out of which domestic water demand is 158 KLD. The freshwater requirement will be 104KLD. NOC from CGWA has been obtained vide no. CGWA/NOC/INF/ORIG/2022/17059 valid from 17<sup>th</sup> Nov. 2022 to 16<sup>th</sup> Nov. 2027.

S. No	Description	Occupancy	Rate of water demand (LPCD)		Total Water Requirement (KLD)		
			Fresh	Flushing	Fresh	Flushing	Total
A	Domestic Water						
	Residents	1116	90	45	100.44	50.22	150.66
	Staff (Maintenance, Commercial, Community)	80	25	20	2	1.6	3.6
	Visitors(Maintenance, Commercial, Community)	251	5	10	1.25	2.51	3.76
					104 KLD	54 KLD	158 KLD
Total Domestic Water =158KLD							
B	Horticulture	1,486.528m <sup>2</sup>	4 l/sqm		6 KLD		

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*J Nayak*  
Environmental Scientist, SEAC

S. No	Description	Occupancy	Rate of water demand (LPCD)	Total Water Requirement (KLD)
C	Make Up water for Swimming Pool (43.3 sqm)	43.3 sqm x 0.9	@5% of water	2 KLD
Grand Total (A+B+ C) = 166 KLD				

9. **Wastewater generation:** It is expected that, the project will generate approx. 137 KLD of wastewater. The wastewater will be treated in onsite STP of 165 KLD capacity. The treated effluent will be reused for flushing & horticulture. 68 KLD Surplus treated effluent will be discharged to external sewer in monsoon and 63 KLD in summer season.

<b>Domestic Water Requirement</b>	<b>158 KLD</b>
• Fresh	104 KLD
• Flushing	54 KLD
<b>Wastewater [@80% fresh + 100% flushing]</b>	<b>83.2 + 54 = 137 KLD</b>
<b>STP Capacity (~20 % higher than waste water)</b>	<b>165 KLD</b>

10. **Power Requirement:** The power supply will be through State Electricity Board. The total maximum demand is estimated as 988 KW. 10% i.e., 98.8 KW energy will be saving from total energy load (5% i.e., 49.4 KW through solar and 5% i.e., 49.4 KW through LED). Solar energy will be utilized for street lighting, solar blinkers and signage to reduce electricity consumption. There is provision of 2 nos. of DG sets of total 1,500 kVA (1 x 750 kVA + 1 x 750 kVA) capacity for power back up. The DG set will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion as per CPCB norms.
11. **Rainwater Harvesting:** 3 RWH tanks of 162.5 m<sup>3</sup> capacity each are proposed to collect rainwater for 578.338 m<sup>3</sup> runoff load.
12. **Parking Requirement:** Proposed Parking Area = = 8,367.38 m<sup>2</sup> [i.e., 7,128.23 m<sup>2</sup> (Covered parking) + 1,239.15 m<sup>2</sup> (Open parking)]. Total 277 ECS is proposed.
13. **Fire Fighting Installation:** Fire fighting measures will be adopted as per the guidelines of NBC. External yard hydrants shall be installed around all buildings in the complex in galvanized steel fire house cabinet (weatherproof). All external yard hydrants shall be at one meter height from finished ground level as per NBC at a distance of 60 m along the road. External fire hydrants shall be located such that no portion of any building is more than 45 m from a hydrant and the external hydrants are not vulnerable to mechanical or vehicular damage.
14. **Green Belt Development:** In ADS revised green area has been submitted. The green area has been increased from 1,486.528 sqm (20%) to 2,715 sqm (36%), out of which 24% is on native/mother earth and rest 12% is landscape over basement.
15. **Greenbelt was submitted during presentation** Green Belt will be developed over an area of 7,492.64 m<sup>2</sup> which is 20% of total plot area. Total 100 Nos. of plants to be planted and 3m spacing between plants and it will be 2 tier plantations.

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*Trayak*  
Environmental Scientist, SEAC



16. **Solid Waste Management:** During the operation phase, waste will comprise domestic as well as horticultural waste. The solid waste generated from the project shall be 73pprox.. 634 kg per day (@ 0.5 kg per capita per day for residents, @ 0.15 kg per capita per day for the visitor, 0.25 kg per capita per day for the staff members and landscape waste @ 0.2 kg/acre/day.

S. No.	Description	Occupancy	Waste (kg/capita/day)	Generated
1.	Domestic Solid Waste			
	Residents	1116	0.5	
	Staff	80	0.25	
	Visitors	251	0.15	
2.	Horticultural Waste (0.148 acre)	@ 0.2 kg/acre/day		
3.	STP Sludge	Waste water x 0.35 x B.O.D difference/1000		
	Total	634 kg/d		

17. **Project cost:** The estimated Project cost is 90.12 Crores (Land and Development Cost) and cost form EMP is 31.659 lakhs (capital cost) and 16.914 lakhs(recurring cost).

COMPONENT	CAPITAL COST (INR LAKH)	RECURRING COST (INR LAKH/YR)
Sewage Treatment Plant	16.5	4.125
Rain Water Harvesting System	3	0.75
Solid Waste Management	1.268	0.317
Environmental Monitoring	0	9
Green Area/ Landscape Area	0.891	0.222
Others (Energy saving devices, miscellaneous)	10	2.5
Total	31.659	16.914

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

19. The SEAC in its meeting held on 27-12-2023 the SEAC recommended the following:

- A. The proponent may be asked to submit the following for further processing of EC application:
- The project proponent shall increase the greenbelt area up to 20% excluding Landscape.
  - The proposed water discharge is high. The PP shall revisit the water balance and reduce the water discharge by keeping a provision to increase the greenbelt.

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*J Nayak*  
Environmental Scientist, SEAC

- iii. There is a school nearby to the project site. Thus, the PP shall take additional safety measures for protecting school children from pollution particularly during construction phase.
- iv. Permission copy from Chief Engineer, Drainage Department for discharge of treated water and storm water to the nearest municipal drain.
- v. Layout of proposed internal drainage connecting to main municipal drain to be submitted along with necessary approval of the competent authority.
- vi. Copy of Structural Stability Certificate.
- vii. The PP shall ensure that the project site shouldn't be an obstacle in the operations of airport. Permission for the same shall be obtained from Airport Authority of India.
- viii. Source of water and its quantity during construction / project execution phase to be provided.

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

- v. Environmental settings of the project site.
- vi. Verify if the site is a flood prone area.
- vii. Construction activity if any started at the site and extent of construction activity.
- viii. Road connectivity to the project site.
- ix. Drainage network at the site.
- x. Discharge point for discharge of treated water and distance of the discharge point from the project site.
- xi. Any other issues including local issues.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i.	The project proponent shall increase the greenbelt area up to 20% excluding Landscape.	As suggested by esteemed committee members, we have increased the green area from 1,486.528 sqm (20%) to 2,715 sqm (36%), out of which 24% is on native/mother earth and rest 12% is landscape over basement. Layout for the same is enclosed as Annexure-I.	The green area from 1,486.528 sqm (20%) to 2,715 sqm (36%), out of which 24% is on native/mother earth and rest 12% is landscape over basement.
ii.	The proposed water discharge is high. The PP shall revisit the water balance and reduce the water discharge by keeping a provision to increase the greenbelt.	We have increased the green area from 1,486.528 sqm (20%) to 2,715 sqm (36%), wherein, STP treated water will be reused for horticulture, thereby reducing treated water discharge. Revised water balance is attached as Annexure-II.	Fresh water requirement is now-106KLD. The treated effluent will be reused for flushing & horticulture. 68 KLD Surplus treated

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 Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
			effluent will be discharged to external sewer in monsoon and 58 KLD in summer season.
iii.	There is a school nearby to the project site. Thus, the PP shall take additional safety measures for protecting school children from pollution particularly during construction phase.	As suggested by SEAC, we would develop a thicker greenbelt towards the northern side of project boundary to act as a barrier between site and the nearby school. During Construction phase, transportation of construction material and waste will be done through covered trucks and site will be barricaded to restrict dust emissions.	-
iv.	Permission copy from Chief Engineer, Drainage Department for discharge of treated water and storm water to the nearest municipal drain.	Receipt of payment done to EIDP is enclosed as Annexure-III. The discharge point for excess STP treated water will be connected to the trunk line as per EIDP or Shakti Nagar Main drain which is 150-200 meter from Project site.	complied
v.	Layout of proposed internal drainage connecting to main municipal drain to be submitted along with necessary approval of the competent authority.	Internal drainage plan showing enclosed as Annexure-IV.	complied
vi.	Copy of Structural Stability Certificate.	Vetting of Structural design has been done by Department of Civil Engineering, NIT Rourkela. Copy attached as Annexure-V.	complied
vii.	The PP shall ensure that the project site shouldn't be an obstacle in the operations of airport. Permission for the same shall be obtained from Airport Authority of India.	Behrampur Airport is approx. 9.8 km in NE direction from project site. Since it is being used for Cargo operations with very limited operations. Further, our site falls in Grid 6, perpendicular to the airport funnel wherein, permissible top elevation is 182m, whereas, the maximum building height of our project is 41.6 m. Therefore, there will be no obstruction in the operation of flights due to our project and AAI NOC is not required. Zoning map of Berhampur from Airport Authorities of India showing permissible elevation level is enclosed as Annexure-VI.	Zoning map of Berhampur from Airport Authorities of India showing permissible elevation level has been submitted.
viii.	Source of water and its quantity during construction / project execution phase to be provided.	Source of water during construction/project execution phase will be ground water and the quantity of the same is 75 KLD and 167 KLD respectively. CGWA NOC is enclosed as Annexure-VII.	NOC from CGWA has been obtained for 100KLD valid till 2027.

21. The proposed site was visited by the sub-committee of SEAC on 24.02.2024. Following are the observations of the sub-committee:

- a) The site was clean and no construction exists. It is approachable by about 30 ft. road.

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*Tarunak*  
Environmental Scientist, SEAC

- b) There is no approach drain near to land. The PP explained that, they have deposited certain amount for development of drain. PP was asked to submit documentary evidence for drain with corresponding land and permission to discharge excess treated water.
- c) Permission for water supply to be submitted.
- d) Traffic corridors layout to be submitted.
- e) All other points asked during presentation to be complied.

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

- i) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
- ii) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.
- iii) The proponent shall use solar energy at least to the tune of 5%of total power requirement as proposed.
- iv) The proponent shall obtain permission from concerned Fire Safety Authority.
- v) The proponent shall obtain permission for water supply.
- vi) The proponent shall abide by Traffic corridors layout as per Traffic Study Report.
- vii) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- viii) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- ix) 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.
- x) Before starting the construction project physical properties as well as engineering properties of the soil along with its bearing capacity should be undertaken and the report should be submitted.
- xi) 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

Proceedings of the SEAC meeting held on 01.05.2024 (Old proposals – compliance received)

  
Environmental Scientist, SEAC

**ANNEXURE- A**

**CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE OF  
M/S PM GRANITE EXPORT PRIVATE LIMITED (BENEFICIATION DIVISION) MANGANESE  
ORE BENEFICIATION PLANT WITH 19800 TPA THROUGHPUT CAPACITY AT VILL:  
KOIDA, DIST: SUNDERGARH, ODISHA – EC**

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**I. Statutory compliance:**

- (i) The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
- (ii) The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- (iii) The project proponent shall prepare a Site-Specific Conservation Plan & Wildlife Management Plan and approved by the Chief Wildlife Warden. The recommendations of the approved Site-Specific Conservation Plan / Wildlife Management Plan shall be implemented in consultation with the State Forest Department. The implementation report shall be furnished along with the six-monthly compliance report, (incase of the presence of schedule-I species in the study area)
- (iv) The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State pollution Control Board.
- (v) The project proponent shall obtain the necessary permission from the Central Ground Water Authority and other concerned authority, in case of drawl of ground water / from the competent authority concerned in case of drawl of surface water required for the project.
- (vi) The project proponent shall obtain authorization under the Hazardous and other Waste Management Rules, 2016 as amended from time to time.

**II. Air quality monitoring and preservation**

- (i) The project proponent shall monitor fugitive emissions in the plant premises at least once in every quarter through labs recognized under Environment (Protection) Act, 1986.
- (ii) The project proponent shall submit monthly summary report of continuous stack emission and air quality monitoring and results of manual stack monitoring and manual monitoring of air quality /fugitive emissions to Regional Office of MoEF&CC, Zonal office of CPCB and Regional Office of SPCB along with six-monthly monitoring report.
- (iii) Appropriate Air Pollution Control (APC) system shall be provided for all the dust generating points including fugitive dust from all vulnerable sources, so as to comply

*J. Nayak*  
Environmental Scientist, SEAC

- prescribed stack emission and fugitive emission standards.
- (iv) The project proponent use leak proof trucks/dumpers carrying ore and other raw materials and cover them with tarpaulin.
  - (v) Wind shelter fence and chemical spraying shall be provided on the raw material stock piles.
  - (vi) Design the ventilation system for adequate air changes as per ACGIH document for all tunnels, motor houses, Oil Cellars.
  - (vii) The project proponent shall carry out conditioning of the ore with water to mitigate fugitive dust emission, without affecting flow of ore in the ore processing and handling areas.
  - (viii) Effective safeguard measures such as regular water sprinkling shall be carried out in critical areas prone to air pollution and having high levels of air pollutants such as haul road, loading and unloading point and transfer points. It shall be ensured that the Ambient Air Quality parameters conform to the National ambient air quality standards.
  - (ix) The transportation of mineral shall be carried out through the covered trucks. Vehicular emissions shall be kept under control and regularly monitored. Measures shall be taken for maintenance of vehicles used in beneficiation operations and in transportation of ore to the beneficiation plant. The vehicles carrying the mineral shall not be overloaded.
  - (x) Mineral handling area shall be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
  - (xi) Occupational health surveillance program of the workers shall be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed. Health records of the workers shall be maintained.
  - (xii) Regular Ambient Air Quality Monitoring shall be carried out. The monitoring stations will be set up in consultation with the SPCB. At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of  $PM_{2.5}$ ,  $PM_{10}$ ,  $SO_2$  and  $NO_x$  are anticipated in consultation with the State Pollution control Board. It will be ensured that at least one monitoring station is set up in up-wind & in down-wind direction along with those in other directions. The instruments used for ambient air quality monitoring shall be calibrated regularly.
  - (xiii) Data on ambient air quality ( $PM_{2.5}$ ,  $PM_{10}$ ,  $SO_2$ ,  $NO_x$ ) shall be regularly submitted to the Ministry including its Regional office located at Bhubaneswar and the State Pollution Control Board/Central Pollution Control Board once in six months.

### III. Water quality monitoring and preservation

- (i) The project proponent shall monitor regularly ground water quality at least twice a year (pre and post monsoon) at sufficient numbers of piezometers/sampling wells in the plant

*Triyak*  
Environmental Scientist, SEAC

- and adjacent areas through labs recognized under Environment (Protection) Act, 1986 and NABL accredited laboratories.
- (ii) Sewage Treatment Plant shall be provided for treatment of domestic wastewater to meet the prescribed standards.
  - (iii) Garland drains and collection pits shall be provided for each stock pile to arrest the run-off in the event of heavy rains and to check the water pollution due to surface run off.
  - (iv) The project proponent shall practice rainwater harvesting to maximum possible extent.
  - (v) The effluent from the ore beneficiation plant shall be treated in the tailing thickener and the tailings slurry shall be transported through a closed pipeline to the tailing pond.
  - (vi) The tailing pond shall be lined with appropriate impervious lining on all sides as well as the bottom to prevent any leachate going from the tailing pond into groundwater.
  - (vii) The garland drain shall be constructed around the tailing pond before the starting operation on the project.
  - (viii) The decanted water from the tailing pond shall be re-circulated and there should be zero discharge from the tailing pond.
  - (ix) Appropriate technology shall be used for maximum recovery of ore in order to reduce slurry discharge and to increase the life of the tailing pond.
  - (x) Garland drains with appropriate size, gradient and length shall be constructed to arrest silt and sediment flows from ore dumps and directly into the water bodies. The water so collected shall be utilized for watering the roads, green belt development etc. The drains shall be regularly desilted particularly after monsoon and maintained properly.
  - (xi) Effluents containing Cr+6 shall be treated to meet the prescribed standards before reuse. Effluent Treatment Plant should be provided for treatment of wastewater generated from the beneficiation plant.
  - (xii) Run off from the mineral and reject dumps and other surface run off should be analyzed for Cr+6 and in case its concentration is found higher than the permissible limit the water should be treated before reuse.
  - (xiii) Adhere to "Zero Liquid Discharge".
  - (xiv) Regular monitoring of water quality for surface water sources as well as ground water sources shall be carried out. The groundwater shall be monitored downstream of beneficiation plant as well as tailing pond upto groundwater table and record of monitoring data should be maintained and submitted on six monthly basis to the Ministry of Environment and Forests, its Regional Office, Bhubaneswar, the Central Ground Water Authority, the Regional Director Central Ground Water Board and the State Pollution Control Board.
  - (xv) Suitable rainwater harvesting measures on long term basis shall be planned and implemented in consultation with the Regional Director, Central Ground Water Board.

*J Nayak*  
Environmental Scientist, SEAC

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

#### **IV. Noise monitoring and prevention**

- (i) Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha as a part of six-monthly compliance report.
- (ii) The ambient noise levels should conform to the standards prescribed under E(P)A Rules, 1986 viz. 75 dB(A) during day time and 70 dB(A) during night time

#### **V. Energy Conservation measures**

- (i) Provide solar power generation on roof tops of buildings, for solar light system for all common areas, street lights, parking around project area and maintain the same regularly;
- (ii) Provide LED lights in their offices and residential areas.

#### **VI. Waste management**

- (i) The waste oil, grease and other hazardous waste shall be disposed of as per the Hazardous & Other waste (Management & Transboundary Movement) Rules, 2016
- (ii) Kitchen waste shall be composted or converted to biogas for further use. (to be decided on case to case basis depending on type and size of plant)
- (iii) Separate impervious concrete pits for disposal of sludge shall be provided for the safe disposal of sludge generated from the beneficiation operation.

#### **VII. Green Belt and EMP**

- (i) Green belt shall be developed in an area equal to 33% of the plant area with a native tree species in accordance with CPCB guidelines. The greenbelt shall inter alia cover the entire periphery of the plant
- (ii) The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation.
- (iii) Plantation shall be raised all around the beneficiation plant site and the tailing pond around the plant, tailing disposal area, roads etc. by planting the native species in consultation with the local DFO/ Agriculture Department.

#### **VIII. Human Health Issues**

- (i) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- (ii) The project proponent shall carry out heat stress analysis for the workmen who work in high temperature work zone and provide Personal Protection Equipment (PPE) as per the norms of Factory Act.

*J Nayak*  
Environmental Scientist, SEAC



- (iii) Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile
  - a) STP, safe drinking water, medical health care, creche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- (iv) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.

#### **IX. Corporate Environment Responsibility**

- (i) The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-1 A.III dated 1<sup>st</sup> May 2018, as applicable, regarding Corporate Environment Responsibility.
- (ii) The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha as a part of six-monthly report.
- (iii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
- (iv) Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha along with the Six Monthly Compliance Report.
- (v) Self-environmental audit shall be conducted annually. Every three years third party environmental audit shall be carried out
- (vi) All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) for the Mineral Beneficiation plants shall be implemented.

#### **X. Miscellaneous**

- (i) The project proponent shall make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days and in addition this

*J Nayak*  
Environmental Scientist, SEAC

- shall also be displayed in the project proponent's website permanently.
- (ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
  - (iii) The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
  - (iv) The construction and demolition wastes to be generated from the proposed project shall be disposed of in accordance with the provision under "Construction & Demolition Wastes Management Rules 2016".
  - (v) The project proponent shall monitor the criteria pollutants level namely; PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub> (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
  - (vi) The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.
  - (vii) The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
  - (viii) The project proponent shall inform the Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
  - (ix) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
  - (x) The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during their presentation to the State Level Expert Appraisal Committee.
  - (xi) No further expansion or modifications in the plant shall be carried out without prior approval of the SEIAA, Odisha.
  - (xii) Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
  - (xiii) The SEIAA, Odisha may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

*J Nayak*  
Environmental Scientist, SEAC

- (xiv) The SEIAA, Odisha reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- (xv) The Regional Office, MoEF&CC, Govt. of India, Bhubaneswar shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
- (xvi) The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.
- (xvii) Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

*J Nayak*  
Environmental Scientist, SEAC



**CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S PRATYAKSH ESTATES PRIVATE LIMITED FOR RESIDENTIAL APARTMENT PROJECT AT MOUZA - KUNEHIPADA, TAHASIL - BARANG, DISTRICT- CUTTACK, ODISHA – 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 186 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

*Pratyaksh*  
Environmental Scientist, SEAC

- 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 08 no. shall be provided.
  17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
  18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

#### **SOLID WASTE MANAGEMENT**

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

generated from project shall be obtained.

### **SEWAGE TREATMENT PLANT**

24. Sewage shall be treated in STP of capacity 300 KLD. The treated effluent from STP shall be reused for flushing, 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. 2,338.826 m<sup>2</sup> (20% 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 UDITI DWELLINGS PRIVATE LIMITED FOR REVISION & EXPANSION OF MULTI STORIED RESIDENTIAL PROJECT PLOT AREA WILL INCREASE TO 9549.43 M<sup>2</sup> & BUILT-UP AREA WILL INCREASE TO 39,017.43 M<sup>2</sup> AT MOUZA- RAGHUNATHPUR JALI, BHUBANESWAR, DISTRICT - KHORDHA OF SRI PRAFULLA KUMAR 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 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 110 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 07 nos. shall be provided.
17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

#### **SOLID WASTE MANAGEMENT**

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

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

### **SEWAGE TREATMENT PLANT**

24. Sewage shall be treated in STP of capacity 175 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. 1,967.73m<sup>2</sup> (20.92% 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.

*Jwalak*  
Environmental Scientist, SEAC

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 EVOS BUILDCON PVT. LTD FOR MULTISTORIED RESIDENTIAL BUILDING PROJECT B+S+16 (BLOCKS A& B) OVER AN BUILT-UP AREA 34341.85 SQM LOCATED AT : MOUZA- JAGASARA, TAHASIL - JATNI, DIST- KHORDHA OF SRI KALINGA KESHARI RATH - 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 103 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 08 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, 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. 1684sqm (24.76% 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 STHAAPATY PVT. LTD FOR PROPOSED (2B+G+12) MULTI STORIED RESIDENTIAL APARTMENT OVER AN BUILT-UP AREA LOCATED AT PLOT NO.- 361, KHATA NO-212, MOUZA- BANDHACHHADA & KACHARAMALA, TAHASIL-CUTTACK, DIST-CUTTACK OF SRI ABINASH DASH - 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 103 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 14 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, 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.
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40. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
41. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.



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#### **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. 1,384.57sqm (22.5 % of total plot area) shall be provided for green area development.

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

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### **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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#### **PART B – GENERAL CONDITIONS**

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3. Officials from the Regional Office of MoEF&CC, Bhubaneswar who would be monitoring the implementation of environmental safeguards should be given full cooperation, facilities and documents/data by the project proponents during their inspection.
4. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA, Odisha.
5. The SEIAA, Odisha reserves the right to add additional safeguard measures subsequently, if found necessary, and to take action including revoking of the environment clearance under the provisions of the Environmental (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
6. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department, the Forest Conservation Act, 1980 and the Wildlife (Protection) Act, 1972 etc. shall be obtained, as applicable by project proponents from the respective competent authorities.
7. These stipulations would be enforced among others under the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and the EIA Notification, 2006.
8. The project proponent shall advertise in at least two local Newspapers widely circulated in the region, one of which shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the State Pollution Control Board and may also be seen on the website of the SEIAA, Odisha. The advertisement shall be made within Seven days from the date of receipt of the Clearance letter and a copy of the same shall be forwarded to the Regional Office of MoEF&CC, Bhubaneswar.
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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 TRIDENT PROPERTIES PRIVATE LIMITED FOR RESIDENTIAL APARTMENT BUILDING OVER AN BUILTUP AREA 70174.61 SQM AT PAIKARAPUR, BHUBANESWAR, DIST- KHURDA OF MV SHASHI KUMAR - 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 304.1 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 22 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.

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Environmental Scientist, SEAC

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

#### AIR QUALITY AND NOISE

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



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. 9877.63 sqm (23.5 % 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

*J. Nayak*  
Environmental Scientist, SEAC

- clearance letter shall also be put on the website of the company by the proponent.
11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO<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. SHUVAM CONSTRUCTION PVT LTD FOR 2B+G+14 HIGH RISE RESIDENTIAL APARTMENT BUILDING OVER AN BUILT-UP AREA 59578.43 SQM IN MOUZA-GHATIKIA, BHUBANESWAR, DIST.- KHURDA OF SRI KANTILAL PATEL – MOD- EC**

**PART A - SPECIFIC CONDITIONS:**

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

**TOPOGRAPHY AND NATURAL DRAINAGE**

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 149 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

*J Nayak*  
Environmental Scientist, SEAC

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 34 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 240 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.

*J Nayak*  
Environmental Scientist, SEAC

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

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

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



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. 2,028.26 m<sup>2</sup> (20% of the net 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

*Jayak*  
Environmental Scientist, SEAC

- clearance letter shall also be put on the website of the company by the proponent.
11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO<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 UNITED CONSTRUCTION CORPORATION FOR PROPOSES AMENDMENT IN RESIDENTIAL PROJECT OVER A BUILT-UP AREA 24,689.58 M2 AT MOUZA-BADARAGHUNATHPUR, TEHSIL- JATANI, DISTRICT KHURDA, BHUBANESWAR OF SRI TAPAN KUMAR MOHANTY – MOD- 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 71 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

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 24nos. 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 130 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.

*J Nayak*  
Environmental Scientist, SEAC

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

#### AIR QUALITY AND NOISE

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



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. 2793.29 m<sup>2</sup> (30.61% 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 GD CONSTRUCTIONS FOR RESIDENTIAL APARTMENT BUILDING 'ARKA HEIGHTS' WITH TOTAL BUILT- UP AREA 35,393.31M<sup>2</sup> AT MOUZA - HALADIAPADAR, TAHASIL - KANISI, DISTRICT - GANJAM OF SRI BIKRAM KUMAR PANIGRAHI – 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 106 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

- that there is no impact on other users.
11. The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.
  12. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc. and other for supply of recycled water for flushing, landscape irrigation, car washing, thermal cooling, conditioning etc. shall be done.
  13. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc.) for water conservation shall be incorporated in the building plan.
  14. Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.
  15. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
  16. The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits of adequate nos. shall be provided.
  17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
  18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

#### **SOLID WASTE MANAGEMENT**

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

existing civic capacities of handling and their adequacy to cater to the Municipal Solid Waste generated from project shall be obtained.

### **SEWAGE TREATMENT PLANT**

24. Sewage shall be treated in STP of capacity 165 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.

*Trayak*  
Environmental Scientist, SEAC

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

#### AIR QUALITY AND NOISE

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



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. 7,492.64 m<sup>2</sup> (20% 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

*J Nayak*  
Environmental Scientist, SEAC

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

11. The proponent shall submit/upload six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of MoEF&CC, Govt. of India, the respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; SPM, RSPM, SO<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.