

**PROCEEDINGS OF THE MEETING OF STATE LEVEL EXPERT APPRAISAL  
COMMITTEE, ODISHA HELD ON 21<sup>ST</sup> MARCH, 2024**

The SEAC met on 21<sup>st</sup> March, 2024 at 04:00 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 FOR HOMI BHABHA CANCER HOSPITAL AND RESEARCH CENTRE WITH PLOT AREA OF 1,68,195.4 M2 (41.56 ACRE) AND BUILT-UP AREA OF 60,550 M2 UNDER PHASE – I AT VILLAGE PADANPUR, JATANI OF KHURDA DISTRICT OF TATA MEMORIAL CENTRE- EC.**

1. This proposal is for Environmental clearance for Homi Bhabha Cancer Hospital and Research Centre with plot area of 1,68,195.4 m<sup>2</sup> (41.56 Acre) and built-up area of 60,550 m<sup>2</sup> Under Phase – I At Village Padanpur, Jatani of Khurda District of Tata Memorial Centre.
2. **Category:** As per the EIA notification 2006 and its subsequent amendments, proposed project falls in category B under schedule of Item 8(a) Building / Construction.
3. The site is coming under Bhubaneswar Development Authority.
4. **Location and Connectivity:** The project site is located at Khata no. 722(AJA), Plot No. 927(P), 747(P), 922(P), 923, 747(P), 752(P), 749, Tehsil Jatni, Khurda, Odisha. The geographical co-ordinates of project site are 20°10'26.80"N and 85°40'45.44"E. Toposheet no. E45T12. SH-13 which is at a distance of 0.1 km towards South direction. The nearest highway is NH-16 is approx. 3.0 km (NW). The nearest railway station being Khurda Road Junction is about 3.5 km

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

  
Environmental Scientist, SEAC

(SE) away from the project site. The nearest Airport is Biju Patnaik International Airport which is at a distance of approx. 15.8 km towards ESE.

5. The plot area is 1,68,195.4 m<sup>2</sup> (41.56 acres) with total built-up area 60,550 m<sup>2</sup>.
6. The Building Area Details of the Project in tabulated form:

**Table 1: Detailed Area Statement**

S. No.	Particulars	Total Area (m <sup>2</sup> )
1.	Total Area of the Site	1,68,195.4
2.	Land allotted to Tata Memorial Centre for construction of Hospital	41.56 Acres
3.	Permissible Ground Coverage for Institutional Buildings (@30%)	50458.62
4.	Proposed Ground Coverage (@9.16 %)	15,410.0
5.	Permissible FAR for Institutional Buildings @ 150% (including Hospital)	2,52,293.1
6.	<b>Proposed FAR (@ 32.64%)</b>	<b>54,906.0</b>
	a. Hospital	29,647.0
	b. Pediatric Wing	8,154.0
	c. Dharamshala	8,553.0
	d. Guest House	8,552.0
7.	<b>Non-FAR Area (Staircase, lift, Lobby, etc.)</b>	<b>5,644</b>
	a. Hospital:	3,123.0
	b. Pediatric Wing	816.0
	c. Dharamshala	853.0
	d. Guest House	852.0
8	<b>Total Built-Up Area (6 + 7)</b>	<b>60,550</b>
9.	Parking area	16,471.0
10.	Green Area (@ 20.53% of the plot area)	34,530.51
11.	Maximum Height of the building (m)	30

7. **Water Requirement:** The source of water is Ground Water. Total water requirement for the project will be approx. 679 KLD. The fresh water requirement for the project will be 308 KLD. It is expected that the project will generate approx. 343 KLD of wastewater. Approx. 78 KLD of wastewater will be treated in an on-site ETP of 95 KL capacity and 265 KLD of wastewater will be treated in an onsite STP of 350 KL combined capacity (i.e. 1 x 250 KL for Hospital & Pediatric Wing and 1 x 100 KL for Dharamshala and Guest House). The treated water from STP will be reused for flushing, horticulture and HVAC. CGWA NOC is under process.

S. No.	Description	Occupancy/No. of Beds	Rate of water demand (lpcd)	Total Water Requirement (KLD)
A.	Hospital & Pediatric wing			Total

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

	• Indoor Patients	395	450	177.75
	• Outdoor Patients	3,000	15	45
	• Clinical Water			10
	• Laundry Water			28
	• Kitchen Water			9
	Water Requirement for Hospital & Pediatric wing			270
B.	Dharamshala			
	• No of Beds	470	135	63.45
	• Staff	19	45	0.86
	• Visitors	49	15	0.74
	Water Requirement for Dharamshala			65
C.	Guest house			
	• No. of Beds	470	135	63.45
	• Staff	19	45	0.86
	• Visitors	49	15	0.74
	Water Requirement for Guest House			65
Sub Total= 400 KLD				
B.	Horticulture	34,530.51	3 l/sq. m.	104 KLD
C.	HVAC			175 KLD
Grand Total (A+B+C) = 679 KLD				

**8. Wastewater generation and management:** It is expected that the project will generate approx. 343 KLD of wastewater. Approx. 78 KLD of wastewater will be treated in an on-site ETP of 95 KL capacity and 265 KLD of wastewater will be treated in an onsite STP of 350 KL combined capacity (i.e. 1 x 250 KL for Hospital & Pediatric Wing and 1 x 100 KL for Dharamshala and Guest House). The treated water from STP will be reused for flushing, horticulture and HVAC.

S. No.	Description	Quantity (KLD)
--------	-------------	----------------

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*Trayanku*  
Environmental Scientist, SEAC

1.	Fresh water • IPD (@5% of total IPD water requirement) • OPD (@100% of total OPD water requirement) • Laundry Water • Clinical Water	92 9 45 28 10
2.	Wastewater going to ETP @ 80% of (9 + 45 = 54 KLD) + 90% of Laundry Water + 100% of Clinical Water	43+ 25+ 10 = 78 KLD
3.	Total ETP Capacity	95 KLD

9. **Power Requirement:** The power supply will be supplied by TPCODL. The load requirement for the project will be 4,519 kVA. 225.95 kVA (5% of total demand) through Solar and 225.95 kVA (5% of total demand) through LED. Solar energy will be utilized for street lighting, solar blinkers and signage to reduce electricity consumption. There is provision of 3 nos. of 1,250 kVA, 2 nos. of 1,630 kVA and 1 no. of 80 kVA (total capacity 7,090 kVA) LSD DG sets 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.
10. **Rainwater Harvesting:** 3 RWH tanks of 700 m<sup>3</sup> capacity each are proposed to collect rainwater for 578.338 m<sup>3</sup> runoff load.
11. **Parking Requirement:** Required parking 16,471 m<sup>2</sup> and Proposed Parking Area 16,471 m<sup>2</sup>. Total 716 ECS parking is proposed.
12. **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.
13. **Green Belt Development:** Green Belt will be developed over an area of 34,530.51 m<sup>2</sup> which is 20.53% of total plot area. Total 2150 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. 1,910 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.	Particulars	Norms (Kg/capita/day)	Waste generated (kg/day)
1.	Indoor patients*	395 @1.5 kg/bed/day	592.5
2.	Guests	940 @0.5 kg/bed/day	470
3.	Residential Staff (Maintenance)	38 @0.5 kg/day	19

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

4.	Non-residential Staff (Doctors + Visitors)	1,282 @0.25 kg/day	320.5
5.	Out-Patients	3000 @0.15 kg/day	450
6.	Landscape waste (8.53 acre)	@0.2 kg/acre/day	1.7
	Sub-total waste		1853.7 kg/day
7.	STP Sludge (Waste water x 0.35 x B.O.D difference/1000)		36.17
8.	ETP Sludge (Waste water x 0.35 x B.O.D difference/1000)		20.20
	Total Solid Waste		1,910 kg/day
	*Bio-Medical waste	@ 25% of the waste generated/bed	148 kg/day

**15. Project cost:** The estimated Project cost is 295 Crores (Land and Development Cost) and cost form EMP is Rs. 100 lakhs (Capital Cost) and Rs. 34lakhs (Recurring Cost)

16. COMPONENT	CAPITAL COST (INR LAKH)	RECURRING COST (INR LAKH/YR)
Sewage Treatment Plant	25	6.25
Rain Water Harvesting System	15	3.75
Solid Waste Management	5	1.25
Environmental Monitoring	0	9
Green Area/ Landscape Area	25	6.25
Others (Energy saving devices, miscellaneous)	30	7.5
<b>Total</b>	<b>100</b>	<b>34</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 06-01-2024 recommended the following:**

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

- i) Submit the width of the entry and exit gate and ensure to provide a pillar in the centre for smooth passage of patients if the proposal is to have a single entry and exit.
- ii) Note on radioactive pollution and mitigation measures and its disposal.
- iii) List of radioactive/nuclear devices along with its safety measures

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*Jayak*  
Environmental Scientist, SEAC

- iv) Obtain approval from the Atomic Energy Regulatory Board for the disposal of radioactive materials.
- v) Submit Traffic study report vetted by institute of repute.
- vi) Layout of fire corridor and its width.
- vii) Complete layout of different units of hospital along with the fire corridor.
- viii) Details of ETP or separate ETP & STP and further usage of treated effluent.

**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.	Submit the width of the entry and exit gate and ensure to provide a pillar in the centre for smooth passage of patients if the proposal is to have a single entry and exit.	The width of the Entry and Exit gate is 6m. Site Layout is enclosed as <b>Annexure-I</b>	Copy submitted.
2.	Note on radioactive pollution and mitigation measures and its disposal.	As per CPCB Guidelines, Health Care Facilities generating radionuclide's waste from treatment of Cancer patients and end-of-life equipment containing radio radionuclide's will obtain authorization from AERB for its disposal. In compliance to the provisions of Atomic Energy (safe Disposal of Radioactive Wastes) Rules, 1987, PP will obtain an authorization from the competent authority.	-
3.	List of radioactive/nuclear devices along with its safety measures	List of Radioactive/nuclear devices along with their safety measures is attached as <b>Annexure-II</b>	Copy submitted
4.	Obtain approval from the Atomic Energy Regulatory Board for the disposal of radioactive materials.	We have applied for approval from the Atomic Energy Regulatory Board. Acknowledgement of the same is attached as <b>Annexure-III</b>	Application submitted.

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
5.	Submit Traffic study report vetted by institute of repute.	We have obtained traffic study report from KIIT. Same is attached as <b>Annexure-IV</b> .	As per traffic study report, the predicted traffic after 10 years is LOS "B".
6.	Layout of fire corridor and its width.	Fire tender path is shown in site layout attached as <b>Annexure-V</b> .	Copy submitted
7.	Complete layout of different units of hospital along with the fire corridor.	Fire tender path is shown in site layout attached as <b>Annexure-V</b> .	Copy submitted
8.	Details of ETP or separate ETP & STP and further usage of treated effluent.	It is expected that the project will generate approx. 343 KLD of wastewater. Approx. 78 KLD of wastewater will be treated in an on-site ETP of 95 KL capacity and 265 KLD of wastewater will be treated in an onsite STP of 350 KL combined capacity (i.e. 1 x 250 KL for Hospital & Pediatric Wing and 1 x 100 KL for Dharamshala and Guest House). The treated water from STP will be reused for flushing, horticulture and HVAC.	complied
<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 3.35 km towards N direction from the project site. 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.	Project site is vacant land there is no Construction started at project site.	
4.	Road connectivity to the project site.	The site is well connected through SH - 13 which is at a distance of 0.1 km towards South direction.	
5.	Drainage network at the site.	Internal Drainage Map is enclosed as <b>Annexure-VI</b> .	
6.	Discharge point for discharge of treated water and distance of the discharge point from the project site.	Water supply & and drainage system will be provided by the Department of Housing & Urban Development as mentioned in point no. 3 in MoM of the meeting held on 09.01.2024 under the Chairman of Chief Secretary, Odisha. Copy of MoM is enclosed as <b>Annexure- VII</b> .	
7.	Any other issues including local issues.	There is no issue at the site.	

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

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*J Nayak*  
Environmental Scientist, SEAC

- a) This is a joint effort of TATA and Atomic Energy Department for Cancer Hospital.
- b) The land consisting of part given by NISER, part by State Govt. Thus, details of land document with layout demarcation for land allotted by Govt., transferred by Govt. from other use, transferred from NISER etc. showing in the drawing to be submitted.
- c) Parking to be adequate as per norms (condition to be stipulated).
- d) Document in support of road, drain, water and electric supply to be submitted.
- e) Safety implementation plan for treatment and disposal of both solid and liquid waste and radiation measures to be submitted.
- f) All other points asked during presentation to be complied.

**21. The SEAC observed the following:**

The Project Proponent has submitted Minutes of the meeting held on dated 09.01.2024 at 3.30pm under the Chairmanship of Chief Secretary, Odisha for expediting the works of different departments in connection with establishment of Homi Bhabha Cancer Hospital and Research Centre at Jatani, Khorda which briefs about the time line for land acquisition process, power supply, water supply and storm water drainage, transport facility etc. which might be achieved within a span of 6 months.

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 the following:

- A. Environmental Clearance may be granted valid for 10 years with stipulated conditions as per Annexure – A in addition to the following specific conditions.
  - i) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
  - ii) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.
  - iii) Plantation and solar facilities to be implemented as proposed at appropriate time.
  - iv) Parking in terms of ECS (4-wheeler, 2 wheeler and bicycles) shall be provided compatible with expected number of patients and attending visitors of proposed 750 base, OPD patients and visitors with them, Doctor's and staffs, nursing sisters and at least 10% floating population in confirmative building by- law/NBC norm/ applicable laws and rules for this kind of project.
  - v) The proponent shall operate STP and ETP separately as standalone system and both shall not be inter-connected. ETP outlet effluent shall not be discharged to outside the project premises i.e. "zero discharge" from ETP to outside the premises shall be maintained.

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)



- vi) The Decongestion plan as given by the proponent in the traffic density study report shall be implemented for compliance with a definite time frame.
- vii) The proponent shall make agreement with nearby Common Bio-Medical Waste Treatment Facility having incinerator facilities for disposal of infectious waste, organic waste and health hazardous wastes.
- viii) The proponent shall obtain permission from concerned authority for discharge of surplus treated water of STP only to nearby drain & nallah.
- ix) The proponent shall obtain permission from concerned Fire Safety Authority.
- x) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- xi) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- xii) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

**B. The SEIAA, Odisha may consider to issue Environmental Clearance after receipt of the following informations / documents from the project proponent.**

- i) The land consisting of part given by NISER, part by State Govt. Thus, details of land document with layout demarcation for land allotted by Govt., transferred by Govt. from other use, transferred from NISER etc. showing in the drawing to be submitted.
- ii) Document in support of road, drain, water and electric supply to be submitted.
- iii) Safety implementation plan for treatment and disposal of both solid and liquid waste and radiation measures to be submitted.

**ITEM NO. 02**

**PROPOSAL FOR EXTENSION OF ENVIRONMENTAL CLEARANCE FOR NUAPADA DECORATIVE STONE MINE OVER AN AREA OF 8.575 HA. LOCATED AT PLOT NO. 74/P & 237/P, KHATA NO. 203, AT/PO- NUAPADA, TAHASIL - BHAWANIPATNA, DISTRICT- KALAHANDI, ODISHA OF SRI HARENDRA KUMAR PATTNAIK - EC**

1. This proposal is for extension of Environmental Clearance of Nuapada Decorative Stone Mine with total production capacity of 22,015 cum having an area of 8.575 Ha. located at Plot No. 74/P & 237/P, Khata No. 203, At/PO-Nuapada, Tahasil - Bhawanipatna, District- Kalahandi, Odisha of Sri Harendra Kumar Pattnaik.
2. **Category:** As per the EIA Notification dated 14<sup>th</sup> September 2006 and its subsequent amendments the proposed project falls under category B of Schedule in item 1 (a) – mining of minerals.
3. **List of Statutory Clearances obtained earlier -**
  - a) Environmental Clearance vide letter no. SEIAA/4234 dtd. 17.08.2015 FOR total production capacity of 22,015 cum obtained from SEIAA.
  - b) The Mining Plan was approved by Directorate of Mines & Geology, Steel & Mines Department, Govt. of Odisha, Bhubaneswar vide letter no. MXXX/I(b)14/13/1308/DM, Dtd. 16.02.2015.

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*T. Nayak*  
Environmental Scientist, SEAC

- c) Mining lease granted by- Mining Officer, Kalahandi Circle, Bhawanipatna.
4. **Location and connectivity:** The project area is located at Plot No. 74/P & 237/P, Khata No. 203, At/PO-Nuapada, Tahasil- Bhawanipatna, Dist-Kalahandi. The geographical co-ordinates of centre of project site are Latitude: 20° 09' 85"N To 20° 10' 02"N Longitude: 83° 01' 28" E To 83° 01' 28" E. Toposheet No: 64P/4, Kisam- Abad Ajogya Anabadi.
  5. The project is not located within Eco-Sensitive Zone (ESZ) or Eco-Sensitive Area (ESA) notified by the MoEF&CC. The nearest Wildlife Sanctuary is Karlapat Wildlife Sanctuary- 27.8 Km.
  6. **Total Reserves Production:** The total Geological Reserves for the ML area is 1,629,500Cum, Mineable Reserves for the ML area is 933,500Cum.
  7. **Water requirement:** About 5KLD of water will be required in the mine for domestic and non-domestic purpose.
  8. **Mining Plan Details:**
    - a) **Details of Minerals:** There will be production of Decorative Stone of quantity 22,015 (cum)/annum.
    - b) **Method of Mining:** Opencast and semi mechanized method with the deployment of machines like jack hammer drill, compressor, hydraulic excavator & tipper.
  9. **Solid waste generation:** A total waste of 30,664m<sup>3</sup> or 36,797m<sup>3</sup> (swollen) waste/rejects will be generated during the conceptual period.
  10. **Mitigation of solid waste produced:** The waste rejects will be dumped over an area of 4,530m<sup>2</sup> at 8.5m height (approx).
  11. **Greenbelt Development:** They have proposed for afforestation program of 240 saplings in the safety zone over an area of 1,500sq.m.
  12. **Total Employment:** A total of 37 nos. of people will be employed in the mine.
  13. **Project Cost:** The total project cost is 1.5 Crores. The Capital cost allocated for implementation of EMP is 5 Lakhs.
  14. **Environment Consultant:** The Environment consultant M/s. Green Circle, INC., Vadodara, along with the proponent made a presentation on the proposal before the Committee.
  15. 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:
  16. 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.	Copy of Environmental Clearance, Mining Plan and lease documents showing the project proponent is the rightful lessee and validity period of lease.	The relevant documents i.e. Mining plan, Environmental Clearance & Lease documents as desire by SEAC are enclosed herewith for validity extension of Environmental Clearance of Nuapada Decorative Stone Mine over an area 8.575 Ha.	Environment Clearance has been granted to the project vide letter no. 4234 dated 17.08.2015. has been submitted.

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*J Nayak*  
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
			<p>Letter from Steel And Mines dept. vide letter no. 12638 dated 18-12-2023 that the project proponent is the rightful lessee and validity period of lease is upto 2032.</p> <p>Mining Plan has been approved vide letter no. 1308 on dated 16-02-2015. The validity of the approved mining plan as per the above-mentioned letter is for the period FY2012 – 2013 to FY2016-2017. The updated approved mining plan needs to be submitted.</p>

After detailed discussion, the SEAC decided to recommend the proposal Nuapada Decorative Stone Mine, over an area of 8.575 Ha. located at Plot No. 74/P & 237/P, Khata No. 203, A/PO-Nuapada, Tahasil - Bhawanipatna, District- Kalahandi, Odisha for extension of Environmental Clearance valid upto the lease period i.e. 2032. However, SEIAA shall grant EC after the project proponent submits the updated approved mining plan.

### **ITEM NO. 03**

**PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S. DNT INFRASTRUCTURES PRIVATE LIMITED FOR DEVELOP A 2B+G+19 STORIED RESIDENTIAL APARTMENT BUILDING OVER AN BUILT-UP AREA 42367.32 SQM LOCATED AT PLOT NO. 817/ 3417, KHATA NO.-890/99, IN MOUZA - SUNDARPUR, KHORDHA, BHUBANESHWAR OF SRI NIKUNJA KISHORE DAS - EC**

1. This proposal is for environmental clearance of M/s. DNT Infrastructures Private Limited to develop a 2B+G+19 Storied Residential Apartment Building over a built-up area of 42367.32 sqm located at plot no. 817/ 3417, Khata no.-890/99, in Mouza - Sundarpur, Khordha, Bhubaneshwar of Sri Nikunja Kishore Das.
2. **Category:** The project requires prior Environmental Clearance under the provisions of EIA Notification, 2006 and subsequent amendment and falls under Category B of activity 8(a)-Building & Construction projects.

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*Trayak*  
Environmental Scientist, SEAC

3. **Location and connectivity:** Project site is located at Plot no. 817/3417, Khata no.- 890/99, in Mouza - Sundarpur, Khordha, Bhubaneswar, Orissa. The Geographical coordinates of the project site are 20°21'12.7"N and 85°46'17.4"E and fall within Toposheet no. 73H/15. Site is flat land with average elevation of 39.92 m AMSL. Project site is well connected with road and it also connects Khandagiri-Chandaka road at a distance of 0.41 km, towards W. Site connects to NH-16 which is 8.36 km towards South direction. Site connects to SH 60 at 12.88 km in E direction. Bhubaneswar new junction railway station is 7.34 km away in NE direction. Biju Patnaik International Airport is at 12.19 km in S.
4. **Area Details:** The total plot area of the project site is 6029.76 sqm (0.602 ha./1.49 acres). Project involves development of 152 nos. of residential apartments. Built-up area of project after development will be approx. 42367.32 sqm.

**Table: Area Summary**

Sl. No.	Description	Total (SQ M)
1.	Plot Area	6029.76
2.	Proposed Ground Coverage (26.99 % of total plot area)	1627.61
3.	FAR area (@5.31)	31935.44
4.	NON FAR area	10431.88
5.	Built-up Area	42367.32
6.	Green Area (33 % of plot area)	1945.64
7.	Open Parking area (@ 4.50 % of plot Area)	271.87
8.	Open/Amenities (52.97 % of the plot area)	3225.82
9.	Height	62.80
10.	No. of Dwelling Units	152

5. **Water requirement: Revised Water Balance has been submitted in ADS** - Total water requirement is 84 KLD, out of which domestic water requirement is 71 KLD (Freshwater requirement - 50 KLD + Recycled Water - 21 KLD). Wastewater generation – 61KLD treated in STP of capacity 100 KLD. Treated water from the STP – 55 KLD will be used for flushing (21 KLD), fire fighting (1 KLD), DG cooling (4 KLD) and horticulture purpose (8 KLD) and discharge to drain – 21 KLD (Non monsoon period) and 29 KLD (Monsoon period).
6. **Previous Water Balance submitted in EIA & Presentation** - Total water requirement during operation phase is 103 KLD out of which domestic water requirement is 95 and freshwater requirement is 65 KLD. Source of water during operation phase will be ground water.

Category	Population/Area (sq m)/Capacity	Standard (LPCD)	Water Requirement (KLD)	Fresh Water Requirement (KLD)	Recycled Water requirement(KLD)
<b>Domestic</b>					
Residents	684	135	92	64	28
Staff	34	45	2	0.6	1.4
Visitors	68	15	1	0.7	0.3
<b>Total Domestic Water Demand</b>			<b>95</b>	<b>65</b>	<b>30</b>
Landscape	1945.64 sq.m	3 ltr/sqm	3	-	3

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

Fire Fighting	-	-	1	-	1
DG cooling	500 (1*500)	KVA	0.9 l/kVA/hr	4	4
<b>Total</b>				<b>103</b>	<b>65</b>

7. **Wastewater generation:** Sewage generation from the site is expected to be 89 KLD which will be treated in STP of capacity 100 KLD proposed to be constructed at the site. Treated water from the STP will be used for flushing, fire fighting, DG cooling and horticulture purpose.
8. **Rainwater harvesting:** Storm water drainage system will be provided at the site for channelizing storm water and prevents local flooding. Covered storm water drains will be provided at the site. Run-off from the site will be collected and recharged into ground through 18 nos. of RWH pits for harvesting 112320 liters.
9. **Parking detail:** Total Parking area is 10040.05 sq.m. Adequate parking will be provided to accommodate the expected vehicles during operation phase of the project in line with the requirement of Local Building by Laws.
10. **Power requirement:** Maximum power demand for the project during operation phase is estimated to be 1500 kVA. Source of power will be TPCODL. DG sets of Total 500 KVA will be provided as power back-up during power failure. The height of the DG Stacks will be 6 meter above building height. Provision of Solar power for lighting and water heating is there.
11. **Solid waste generation:** During operation phase, waste comprise of municipal waste. It is estimated that approx. 370 kg per day of waste (0.5 kg per capita per day for the residents, 0.15 kg per capita per day for the visitor. 0.25 kg per capita per day for the staff members, whereas 0.2 kg/acre/day is considered for landscape waste) to be generated from project site. STP sludge expected to generate is approx. 8 kg/day.

S. No.	Description	Occupancy/Area	kg/capita/day	Total Solid Waste Generation (kg/day)	Recyclable (kg/day)	Non-Recyclable(kg/day)
a)	Residents	684	0.5	342	274	68
b)	Staff	34	0.25	9	7.2	1.8
c)	Visitors	68	0.15	10	8	2
d)	Landscape waste	0.22 acres	0.2 kg/acres	1	1	-
e)	<b>Domestic Municipal waste generated</b>			<b>362</b>	<b>290</b>	<b>72</b>
f)	STP sludge	100 KLD	--	8	6	2
<b>Total Waste Generated</b>				<b>370</b>	<b>296</b>	<b>74</b>

12. **Greenbelt:** Revised Greenbelt as submitted in ADS - Total Plot Area-6010.52 sq.mt. Provided Greenbelt-1262.20 sq.mt (21% of total plot area).

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals -- compliance received)

*J. Nayak*  
Environmental Scientist, SEAC

13. **Previous Greenbelt submitted in EIA & Presentation** Green area will be provided in total area of 1945.64 sq m (33 % of plot area) which will enhance the beauty of the site and help combat air and noise pollution. The plant species will be selected on the basis of Guidelines for Developing Green Belts, CPCB March 2000. Number of trees required is 1 tree/80 sq.m. of plot area which comes to 75 nos.
14. **Project Cost:** Total cost of the project is INR 99 Crores. EMP cost includes capital cost of 42 lakhs and recurring cost of 19 lakhs.
15. **Environment Consultant:** The Environment consultant M/s P and M Solution., Noida, Uttar Pradesh along with the proponent made a presentation on the proposal before the Committee.
16. The SEAC in its meeting held on dated 14.02.2023 recommended the followings;
- i) **The proponent may be asked to submit the following for further processing of EC application.**
    - a) Certificate from the concerned DFO regarding distance of proposed project from Chandaka Dampara Wildlife Sanctuary and its Eco Sensitive Zone as well as Nandan Kanan Sanctuary and its' Eco Sensitive Zone.
    - b) Revised surface layout w.r.t location of DG set and Stack including calculations of stack height.
    - c) Detailed drainage plan, internal drainage details, drainage permission with supporting documents and NOC for drainage from concerned authority.
    - d) Revised water balance for both monsoon and non-monsoon season.
    - e) Revised solid waste management plan.
    - f) Traffic study report vetted by reputed institute.
    - g) Increase the peripheral greenbelt with minimum of 20% of total plot area.
    - h) Details of renewable energy (Solar Energy) along with its generation, total power consumption, PV cell capacity.
  - ii) **The proposed site shall be visited by Sub-Committee of SEAC to verify the followings;**
    - a) Environmental settings of the project site.
    - b) Construction activity, if any started at the site.
    - c) Road connectivity to the project site.
    - d) Drainage network at the site.
    - e) Discharge point for discharge of treated water and distance of the discharge point from the project site.
    - f) Any other local issues.
17. **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 was present. No construction initiated at the project and the site is clean.

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

- b) Road and Drain is available in front of the land at road side.
- c) Permission needs to be obtained from PWD or the appropriate authority to discharge excess treated water. However, PP needs to attempt for ZLD.
- d) No trees planted; thus, green belt development is necessary as per norm.
- e) All documents asked during presentation to be submitted.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
a)	Certificate from the concerned DFO regarding distance of proposed project from Chandaka Dampara Wildlife Sanctuary and its Eco Sensitive Zone as well as Nandan Kanan Sanctuary and its' Eco Sensitive Zone.	DFO certificate is attached as <b>Annexure I.</b>	DFO, Chandaka Wildlife Division certified that Mouza Sundarpur is not coming within Eco-sensitive zone of Chandaka Dampara Wildlife Sanctuary.  Certificate from the concerned DFO, Nandan Kanan Sanctuary and its' Eco Sensitive Zone has not been submitted.
b)	Revised surface layout w.r.t location of DG set and Stack including calculations of stack height.	Surface layout plan showing the DG set location is attached as <b>Annexure II.</b>	Only surface layout is submitted showing location of DG sets. Stack including Calculations of stack height is not submitted.
c)	Detailed drainage plan, internal drainage details, drainage permission with supporting documents and NOC for drainage from concerned authority.	Drainage plan, Internal drainage plan is attached as <b>Annexure III.</b>  Application for NOC is attached as <b>Annexure IV.</b>	Drainage map submitted both in layout and Google map.  Application for NOC for drainage from concerned authority has been submitted by the PP. To be added as specific condition.
d)	Revised water balance for both monsoon and non-monsoon season.	Revised water balance is attached as <b>Annexure V.</b>	submitted
e)	Revised solid waste management plan.	<b>Solid waste management plan.</b> 1. The solid waste will be segregated at source & collected. 2. Adequate number of colored bins (green, white & Black) 15	-

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*Trayak*  
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		<p>approx. 10no. separate for bio-degradable, non-biodegradable and Hazardous waste are proposed to be provided at the strategic location within site.</p> <p><b>Type of Waste:</b></p> <p>A. Organic waste/ Bio-degradable: (Waste vegetable, food etc.) – will be composted will be used as Manure.</p> <p>B. Inorganic waste/Non-Biodegradable: Metals, plastics, polythene bags, glass etc. – will be disposed to govt. or SPCB approved third party vendors.</p> <p>C. The Hazardous waste generated will be managed as per the Hazardous and other Wastes (Management and Tran's boundary Movement) Rules, 2016.</p> <p>D. Horticultural Waste is composted and used for gardening purpose.</p> <p><b>Management plan for Pest Control due to the generation of Solid waste:</b></p> <ol style="list-style-type: none"> <li>1. Waste disposal units should be covered and sealed.</li> <li>2. Waste disposal area should be clean and disposal process should be done on the same day to maintain the hygiene</li> </ol>	

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

  
 Environmental Scientist, SEAC



Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		and to avoid the collection of pest. 3. Install insect traps if required 4. Use of physical, chemical and biological methods to control pest.	
f)	Traffic study report vetted by reputed institute.	Traffic study report vetted by reputed institute is attached as <b>Annexure VI.</b>	Traffic study report vetted by KIIT, BBSR concludes after 10 years, the LOS found to be 'B' with or without project.
g)	Increase the peripheral greenbelt with minimum of 20% of total plot area.	Peripheral greenbelt showing 20% green belt area of total plot area is attached as <b>Annexure VII.</b>	Total Plot Area-6010.52 sq.mt Required Peripheral Greenbelt 20% of total plot area Provided Greenbelt-1262.20 sq.mt (21% of total plot area).
h)	Details of renewable energy (Solar Energy) along with its generation, total power consumption, PV cell capacity.	Required solar roof top system = 500 sq.mt Required Solar Water Heating System = 100 LPD/ single flat Total Provided Solar Water Heating System 15200 LPD/152 flat renewable energy (Solar Energy) plan is attached as <b>Annexure VIII.</b>	Detailed Calculation has not been submitted in terms of percentage of renewable energy contributed to total power demand. However, layout submitted.

19. The SEAC in its meeting held on dated 19-06-2023 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	Views of SEAC
a)	Certificate from the concerned DFO, Nandan Kanan Sanctuary and its' Eco Sensitive Zone has not been submitted.	We have already submitted the certificate issued from DFO, Chandaka that our zone is not coming within Eco-sensitive Zone of Chandaka – Dampara Wild Life Sanctuary and Nanadankanan Zoo.	The PP has submitted regarding Chandaka – Dampara Wild Life Sanctuary and there is no mention of NOC of DFO from Nandan Kanan Sanctuary.
b)	A calculation of stack height of DG	We are submitting the calculation sheet	Submitted and

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*Jayak*  
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	set as asked has not been submitted.	of the Stack height of DG.	height is 69meter.
c)	Detailed Calculation has not been submitted in terms of percentage of renewable energy contributed to total power demand.	Detailed calculation of percentage of Renewable Energy contributed to total power demand is attached herewith as an enclosure.	Solar Installation details is not clear.
d)	RL of the bottom of the rainwater discharge pit as well as RL of ground water table during rainy and summer season.	-----	Not submitted
e)	Source of water for use during construction phase.	-----	Not submitted

20. The SEAC in its meeting held on dated 18-08-2023 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	Views of SEAC
a)	Total Solar power installation in kilowatt and its contribution to total power demand.	Clarification against the same: Dear Sir, detailed calculation of percentage of Renewable Energy contribution to total power demand is attached herewith as an enclosure.	Solar Based Lighting will be done in the common areas, signages, entry gates and boundary walls etc.=73.32kVA
b)	RL of the bottom of the rainwater discharge pit as well as RL of ground water table during rainy and summer season.	-----	Not submitted
c)	Source of water for use during construction phase.	-----	Not submitted
d)	Certificate from Deputy Director Nandankanan regarding ESZ.	Clarification against the same: Dear Sir, we have already submitted the certificate issued from DFO, Chandaka that our zone is not coming within Eco-Sensitive Zone of Chandaka- Dampara Wild Life Sanctuary and Nandankanan Zoo.	Copy Submitted

21. The SEAC in its meeting held on dated 29-01-2024 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
1.	RL of the bottom of the rainwater discharge pit as well as RL of ground water table during rainy and summer season.	RL of the bottom of the rain water harvesting pit is 10m and ground water level pre-monsoon is 2 to 10 mbgl and water level ranges from 0.02 mbgl to 15.1 in mbgl during post monsoon.	complied

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*J Nayak*  
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
2.	Source of water for use during construction phase.	Tanker water will be purchased from outside.	complied

Considering the information furnished and the presentation made by the consultant, **M/s P and M Solution., Noida, U.P.** along with the project proponent, the SEAC recommended for grant of Environmental Clearance valid for 10 years with stipulated conditions as per **Annexure – 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 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 project will be using 50 KLD ground water during its operational phase. The required permission from the CGWA / appropriate authority shall be obtained.
- iv) The project is under the jurisdiction of BDA. Necessary permission for the discharge of excess treated water along with rainwater from the project site to the public drain shall be obtained.
- v) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.
- vi) The proponent shall obtain permission from concerned Fire Safety Authority.
- 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) 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 OF ENVIRONMENTAL CLEARANCE OF DERENGA & KHAJURIA SAND QUARRIES CLUSTER OVER AN AREA OF 30.00 ACRES OR 12.14 HECTARES IN VILLAGE DERENGA & KHAJURIA, TAHASIL KANIHA, DISTRICT ANGUL OF TAHASILDAR, KANHIA (SUBMITTED UNDER CLUSTER APPROACH WITH CONSISTING OF 2 SAND QUARRIES) – EC**

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*Jayak*  
Environmental Scientist, SEAC

1. This proposal is for Environmental Clearance of Derenga & Khajuria Sand Quarries Cluster over an area of 30.00 acres or 12.14 Hectares in village Derenga & Khajuria, Tahasil Kaniha, District Angul of Tahasildar, Kaniha (submitted under cluster approach with consisting of 2 sand quarries).
2. **Category:** As per EIA Notification, 2006 and its subsequent amendments, the proposed project falls under Category B in Schedule in item 1(a) - Mining of Minerals.
3. Mining Lease has been granted by vide letter no 6008, date 11/12/2020 for Derenga Sand Quarry & Successful Bidder is Shri Kishore Chandra Sahoo, S/o - Gopal Sahoo At - Derang, PO-Derang, PS - Kaniha, Dist - Angul, Odisha. Mining Lease has been granted by vide letter no 6005, date 11/12/2020 for Khajuria Sand Quarry & Successful Bidder is Shri Parama Nanda Sahoo, C/o- Maa Bhaneswari Sand Supplier, At - Derang, PO - Derang, PS - Kaniha, Dist - Angul, Odisha.
4. The mining plan for the proposed quarry lease area has been approved by the Joint Director, Geology Authorized officer, Zonal Survey, Dhenkanal Odisha vide Memo no 686/DZ & 690/DZ dated 02.06.2020.
5. This Derenga sand quarry proposal is shown as an identified source of the particular minor mineral in the DSR of the district. Annexure - I, Page No.- 22 or SI.No.6 of table list of leases with location, area. This Khajuria sand quarry proposal is shown as an identified source of the particular minor mineral in the DSR of the district. Annexure-I, Page No.- 22 or SI.No.7 of table list of leases with location, area.
6. **TOR details :** The Terms Of Reference(TOR) for Derenga Sand Quarry has been granted vide letter No. 4091/SEIAA, Dated 22.02.2022 and for Khajuria Sand Quarry has been granted vide letter No. 4083/SEIAA, Dated 22.02.2022.
7. **Public hearing details:** Public hearing was successfully executed on date 17.09.2022 at Derang Village Playground Infront of Derang G.P Office, Derang village under Kaniha Tahasil of Angul District. Issues raised during the public hearing are water pollution and air pollution, local employment, plantation, transport road maintenance, tarpaulin covering of transportation vehicles.
8. **Location and connectivity:** The mine lease area is located in Village- Derenga & Khajuria, Tehsil-Kaniha, District-Angul, Odisha and is on Khata no- Khata No. 758, Plot No. 8953/10218 (Derenga Sand Quarry) & Khata No. 59, Plot No. 1000 (Khajuria Sand Quarry). The cluster is covered in the Survey of India Topo Sheet No – 73G/4 and is bounded between the 21°07'47.80"N to 21°08'03.14"N and 85°01'28.72"E to 85°01'51.41"E. Kisam of land is Nadi. The mine site is well connected by approach road of approx. 1.1 km (0.5 km & 0.6 km). This road further connects to Rengali dam-Kaniha road in East direction at a distance of approx. 1.0 km from ML area. The Nearest highway is NH- 53 at approx. 0.98 km in SE direction. Biju Patnaik International Airport is approx. 125.19 km towards SE direction. The Nearest river embankment is near Takua road bridge over Tikira River at approx. 2.5 km in SE.
9. **Reserves and production:** Total Geological reserves is estimated to be 4, 58,416 cum & Total minable reserves is estimated to be 2, 10,876 cum. The average production is 42,175 cum/annum (Khajuria Sand Quarry -18,701 cum/annum and Derenga Sand Quarry-23,474 cum/annum) for a period of Concession of 5 years.

Air Quality monitoring results  
Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

PM 10	35.2µg/m <sup>3</sup> to 85.2µg/m <sup>3</sup> .
PM 2.5	14.10µg/m <sup>3</sup> to 34.5µg/m <sup>3</sup> .
SO <sub>2</sub>	5.40µg/m <sup>3</sup> to 12.80µg/m <sup>3</sup> .
NO <sub>x</sub>	7.20µg/m <sup>3</sup> to 24.20µg/m <sup>3</sup> .

10. **Baseline study details:** Baseline Study was conducted during March, 2022 to May, 2022. Following observations are made:

Ground Water monitoring results	
pH	pH varies from 6.98 to 7.72 during study period.
Total hardness	Total hardness varies from 164.0 mg/l to 236 mg/l at during study period.
Total dissolved solids	Total dissolved solids vary from 347 mg/l to 521 mg/l during study period.

Surface Water monitoring results	
pH	The analysis results indicate that the pH ranges between 6.98 and 7.08.
Dissolved Oxygen	Dissolved Oxygen (DO) was observed in the range of 7.1 to 7.4 mg/l.
BOD	BOD values were observed to be in the range of 2.2 – 2.8 mg/l.
Soil Quality monitoring results	
pH	pH value ranging from 6.29 to 7.16.
Potassium	Potassium is found to be from 162.0 mg/kg to 212 mg/kg.
Noise Quality monitoring results	
Day time	The minimum & maximum noise levels at day time were recorded as 52.4 Leq. dB (A) & 49.1 dB (A).
Night time	The minimum & maximum noise levels at night time were found to be 43.1 dB (A) & 39.4 dB (A).

11. **Mining method:** Mining will be done by Manual method only. The average production is 42,175 cu.m/annum (Khajuria Sand Quarry -18,701 cu.m/annum and Deranga Sand Quarry-23,474 cum/annum) for a period of Concession of 5 years. Proposed Mining Depth is 2 m.

Year	Derenga Sand Quarry (cum)	Khajuria Sand Quarry (cum)
1 <sup>st</sup>	23,474	18,701
2 <sup>nd</sup>	23,474	18,701
3 <sup>rd</sup>	23,474	18,701
4 <sup>th</sup>	23,474	18,701
5 <sup>th</sup>	23,474	18,701
<b>Total</b>	<b>1,17,370</b>	<b>93,505</b>

12. **Water requirement:** Total Water Requirement for the proposed project is 9.47 KLD for proposed project.

Activity	Calculation	Round off Figure in KLD
Drinking	@ 10 lpcd per labor 10*45/1000= 0.45 KLD	0.45
Dust Suppression	Total approach road to be water sprinkled = 1100 m 1100 m*6m*0.5 *2 times/1000= 6.60 KLD	6.60
Plantation	1214 plant (during plan period) @ 2 L/per plant= 1214*2lts= 2428/1000= 2.42 KLD	2.42
<b>Total</b>		<b>9.47</b>

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*J. Nayak*  
Environmental Scientist, SEAC

13. Greenbelt development: Total 1214 plants for proposed project to be planted during the lease period.

Year	No of plants along both side of approach road	No. of plants in buffer zone consulting local authorities	Location	Species
1 <sup>st</sup>	607	607	Approach road –607nos. – along both sides 1100m of approach road at spacing of 2 m. Village area – 607 nos. In village area like school premises, Aangawadi, Panchayat bhavan	Guava, mango, Jamun, jhaun, neem etc
2 <sup>nd</sup>	Maintenance			
3 <sup>rd</sup>				
4 <sup>th</sup>				
5 <sup>th</sup>				
Total	607	607		
Total	1214			

14. Manpower requirement: Total nos of persons required as manpower for the proposed project is 45 (Cluster).

15. Project cost: The estimated cost of the proposed project is Rs. 2 Crores. EMP Cost includes the Capital cost of Rs. 10.00 Lakhs and Recurring cost of Rs. 6.00 Lakhs.

**Table: Budget allocated for Environmental Management Plan (For Cluster)**

Sl. No.	Measures	Capital Cost (In Rs.)	Recurring Cost (In Rs.)
i)	Pollution Control Dust Suppression /Water Sprinkling	1,92,200	50,000
ii)	Pollution Monitoring i) Air pollution ii) Water pollution iii) Soil Pollution iv) Noise Pollution	--	1,00,000 80,000 40,000 20,000
iii)	Financial aid for Medical Camp in Derenga & Khjauria village.	90,000	30,000
iv)	Provision of Sanitation and Toilets in nearby schools.	1,00,000	50,000
v)	Provision of Water Facility and Installation of RO in Derenga & Khjauria village and nearby schools.	1,00,000	30,000
vi)	Green belt development	2,42,800	1,00,000
vii)	Maintenance of haul road	2,75,000	1,20,000
<b>Total</b>		<b>10,00,000</b>	<b>6,00,000</b>

**Table: CER Budget for cluster**

S. No.	Activity	Capital Cost (in Rs.)/annum
i)	Financial aid for medical camp in Derenga & Khjauria village.	90,000
ii)	Skill development program camps like computer learning, sewing etc. in Derenga & Khjauria village.	1,10,000
iii)	Provision of Sanitation and Toilets in nearby schools.	1,00,000
iv)	Provision of Water Facility and Installation of RO in Derenga village and	1,00,000

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*J. Nayak*  
Environmental Scientist, SEAC

S. No.	Activity	Capital Cost (in Rs.)/annum
	nearby schools.	
<b>TOTAL</b>		<b>4,00,000</b>

16. **Environment Consultant:** The Environment consultant M/s P & M Solution, Noida along with the proponent made a presentation on the proposal before the Committee on 22.09.2023.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	The project proponent shall address the voids caused in the project site due to the previous mining (as per Public Hearing report). An action plan must be made so that mining activities will create no such voids further. The project proponent also to provide details of RL pre and post mining as per the approved mining plan along with RLs of ground water table in the ML area in the summer and rainy seasons.	<p>The Form - F (Intimation to Successful Bidder) was issued on 11-12-2020 &amp; the Mining Plan was approved on 02-06-2020. From 2020 to 2023 there was no mining operation that was being done. There are safety measures which will be followed during mining.</p> <p>Safety Measures considered during Mining:</p> <ul style="list-style-type: none"> <li>• The sand will be excavated by open cast manual method. Since the depth of mining is 2.0 m, excavator, handpicks, spade, hand shovel will be used by laborers for extracting &amp; loading of sand.</li> <li>• Dry pit mining will be followed i.e mining at all times will be above flowing river bed water level with no mining when water is above bed level.</li> <li>• The mineral extraction will be done for a period of 200 days in a year only in non monsoon season.</li> <li>• Mineral Sand from this area will be restricted to a maximum depth of 2.0 m from the existing bed level. This is for safety and sustainability.</li> <li>• Area of mining lease will be demarcated prior to mining and pucca pillars will be erected on ground which will be enable systematic mining.</li> <li>• Mining activities will be carried out only in dry bed. No in stream mining will be practiced. Identification of river starches for mining will be completed.</li> <li>• As the mining area is quite large and long in length, systematic extraction will be carried out to prevent seasonal scouring and enhanced erosion.</li> </ul>	complied

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*J Nayak*  
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC																								
		<ul style="list-style-type: none"> <li>• Extraction will be carried out in a manner that there is no obstruction to flow of water if any, during rainy season.</li> <li>• There is no generation of overburden waste material in case of river bed mining.</li> </ul> <p>The RL of the pre and post mining as per the approved mining plan along with RLs of ground water table in the ML area in the summer and rainy seasons is discussed below:</p> <p><b>Deranga Sand Quarry</b> – The present level of the lease area is 84 mRL. During plan period only one quarry will be developed and at the end of plan period the lowest level of the Quarry floor will be 82 mRL.</p> <p>The ground water table varies between 4m to 14m from the surface level. During the summer season water table falls at 14m from the surface level whereas during the rainy season the water table remains at 4m from surface.</p> <p><b>Khajuria Sand Quarry</b> – The present level of the lease area is 86 mRL. During plan period only one quarry will be developed and at the end of plan period the lowest level of the Quarry floor will be 84 mRL.</p> <p>The ground water table varies between 4m to 14m from the surface level. During the summer season water table falls at 14m from the surface level whereas during the rainy season the water table remains at 4m from surface.</p>																									
ii)	Clarify the discrepancy between the recurring cost in EIA report and Presentation.	<p>The Recurring Cost given in Presentation is given below:</p> <table border="1" data-bbox="647 1413 1214 1892"> <thead> <tr> <th>Sl No.</th> <th>Measures</th> <th>Capital Cost (In Rs.)</th> <th>Recurring Cost (In Rs.)</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Pollution Control Dust Suppression /Water Sprinkling</td> <td>1,92,200</td> <td>50,000</td> </tr> <tr> <td>2.</td> <td>Pollution Monitoring</td> <td></td> <td></td> </tr> <tr> <td></td> <td>I. Air Pollution</td> <td></td> <td>1,00,000</td> </tr> <tr> <td></td> <td>II. Water Pollution</td> <td></td> <td>80,000</td> </tr> <tr> <td></td> <td>III. Soil</td> <td>---</td> <td>40,000</td> </tr> </tbody> </table>	Sl No.	Measures	Capital Cost (In Rs.)	Recurring Cost (In Rs.)	1.	Pollution Control Dust Suppression /Water Sprinkling	1,92,200	50,000	2.	Pollution Monitoring				I. Air Pollution		1,00,000		II. Water Pollution		80,000		III. Soil	---	40,000	complied
Sl No.	Measures	Capital Cost (In Rs.)	Recurring Cost (In Rs.)																								
1.	Pollution Control Dust Suppression /Water Sprinkling	1,92,200	50,000																								
2.	Pollution Monitoring																										
	I. Air Pollution		1,00,000																								
	II. Water Pollution		80,000																								
	III. Soil	---	40,000																								

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)



Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent		Views of SEAC
			Pollution IV. Noise Pollution	
		3.	Financial aid for Medical Camp in Deranga & Khjauria village.	90,000 30,000
		4.	Provision of Sanitation and Toilets in nearby schools.	1,00,000 50,000
		5.	Provision of Water Facility and Installation of RO in Deranga & Khjauria village and nearby schools	1,00,000 30,000
		6.	Green belt development	2,42,800 1,00,000
		7.	Maintenance of haul road	2,75,000 1,20,000
		<b>Total</b>		<b>10,00,000</b> <b>6,00,000</b>
		The Recurring Cost given in EIA Report is given below:		
		Sl No.	Measures	Capital Cost (In Rs.) Recurring Cost (In Rs.)
		1.	Pollution Control Dust Suppression /Water Sprinkling	1,92,200 50,000
		2.	Pollution Monitoring V. Air VI. Water VII. Soil VIII. Noise Pollution	1,00,000 80,000 40,000 20,000 ---
		3.	Financial aid for Medical	90,000 30,000

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent		Views of SEAC
			Camp in Deranga & Khjauria village.	
		4.	Provision of Sanitation and Toilets in nearby schools.	1,00,000 50,000
		5.	Provision of Water Facility and Installation of RO in Deranga & Khjauria village and nearby schools	1,00,000 30,000
		6.	Green belt development	2,42,800 1,00,000
		7.	Maintenance of haul road	2,75,000 1,20,000
		<b>Total</b>		<b>10,00,000 6,00,000</b>
		The difference is coming in the values of soil pollution of whose correct values are 20,000. It is a typological error which has been done by mistake and will not be repeated in future.		
iii)	Previous EC compliance report.	The compliance report is attached.		complied

18. The SEAC observed the following:

i) The mining plan was approved on 02nd June 2020 vide office Memo No.686 and is valid for five years. The approved mining plan does not mention the RLs of the surface of the river water and those of the riverbanks. The mineable area mentioned is 48904 m<sup>2</sup>.

ii) Replenishment study has been done based on pre and post monsoon surveys carried out in March and December 2022 respectively. As per the information available from the submitted replenishment study report, the pre, and post-monsoon surveys were done by using two nos. handheld GPS and total station. Deranga sand bed (6.07 Ha): The pre and post monsoon surveys have reported 0.18 m average differences in the mRL based on observations taken on 232 grid points (Spacing of 50 m) on the riverbed sand surfaces of the mining lease area. Mineable area is mentioned to be 33700 m<sup>2</sup> (31.09% less than that mentioned in the approved mining plan) and hence the reported replenished volume of sand is 6066 m<sup>3</sup>.

Khajuria sand bed (6.07 Ha): The pre and post monsoon surveys have reported 0.25 m average differences in the mRL based on observations taken on 274 grid points (Spacing of 50 m) on the riverbed sand surfaces of the mining lease area. The mineable area is mentioned to be 38000 m<sup>2</sup>

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*J. Nayak*  
Environmental Scientist, SEAC

(2.5% less than that mentioned in the approved mining plan) and is in good agreement with the same. The reported replenished volume of sand is 9500 m<sup>3</sup> as per surface area method.

iii) For Derenga sand bed only the mineable area reported in the replenishment study report needs to be reconciled with that mentioned in the approved mining plan.

iv) The replenishment study conducted in 2022 is ok for both Derenga and Khajuria mines.

Considering the information / documents furnished by the proponent and presentation made by the consultant **M/s P & M Solution, Noida** on behalf of the proponent, the SEAC approved the EIAEMP report in cluster approach and recommended the following:

a) The SEIAA, Odisha may consider to grant Environmental Clearance to individual lease for **Derenga & Khajuria Sand Quarries Cluster** without referring to SEAC with stipulated conditions as per **Annexure – C** after receipt of individual applications from the lessee in cluster along with following documents.

- i) Filled in form-I of individual lease
- ii) Prefeasibility report of individual lease
- iii) EMP of individual lease.
- iv) Approved Mining Plan of individual lease.
- v) Previous production details of individual lease duly certified by Tahasildar.
- vi) Replenishment Study Report of individual lease.

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

- i) Amended EIA Notification dated 25th July, 2018, Guidelines for sustainable sand mining, 2016 and Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India shall be adhered to in execution of Mining as per **Annexure – D**.
- ii) Sand extraction shall be limited to quantity and depth as per replenishment study report. Regular replenishment study as per guidelines to be conducted and report to be submitted.
- iii) Provision of Bio-toilet shall be made at the site.
- iv) Avenue plantation and plantation on both sides of the haulage road in consultation with/ on the advice of concerned Forest Department, Government of Odisha & W.R. Department Government of Odisha as well.
- v) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.

**ITEM NO. 05**

**PROPOSAL OF ENVIRONMENTAL CLEARANCE OF M/S OU INFRA PROJECTS PRIVATE LIMITED FOR RESIDENTIAL APARTMENT PROJECT "9 BOULEVARD' OVER A BUILT-UP AREA 1,49,879.37 M<sup>2</sup> AT MOUZA-RAGHUNATHPUR, TEHSIL-BHUBANESWAR DISTRICT-KHURDA OF SRI SIDDHARTH SEKHAR MOHAPATRA- EC**

1. This proposal is for Environmental Clearance of M/s. Ou Infra Projects Private Limited for residential apartment project "9 Boulevard' over a built-up area 1,49,879.37m<sup>2</sup> At Mouza-Raghunathpur, Tahasil-Bhubaneswar District-Khurda of Sri Siddharth Sekhar Mohapatra.
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. **Project details:** The project was earlier granted Environmental Clearance for Plot area of 13,618.57 m<sup>2</sup> (3.365 acres) and Built-up area = 36,025.25 m<sup>2</sup> from (SEIAA), Odisha vide Reference No. 2587/SEIAA dated 15.11.2014. Further, the company name was changed from M/s M. J. Accretion Pvt. Ltd. to M/s. OU Infracorps Pvt. Ltd. in year 2021. Subsequently, Transfer of Environmental Clearance was done through SEIAA, Odisha vide File No.: SIA/OR/MIS/299810/2023 dated 27.09.2023. Certified Compliance Report has been obtained from MoEFCC, IRO (Bhubaneswar) vide Letter No. 109-1147/EPE/ dated 30.08.2023. As a part of proposed Expansion, the Plot area has become 19,929.30 m<sup>2</sup> (4.925 acre), and the total Built-up area will be 1,49,879.37 m<sup>2</sup>.
4. **Location and connectivity:** The project is located at Mouza- Raghunathpur, P.S. Nandankanan, No.- 14, Tahasil- Bhubaneswar, District- Khurda, Odisha. The geo co-ordinates of the project is Latitude: 20°22'38.85"N and Longitude: 85°49'48.34"E. The nearest Highway is NH-16 which is 6 km in East direction from the project site, NH-316A is 6.8 km towards ESE direction, NH-316 is 8.8 km towards SSE direction, & Nanadakanan Road Site connecting road is adjacent to the project site in west direction. The nearest Railway Station being Bhubaneswar New Junction Station is about 0.5 km (East) away from the project site. Biju Patnaik International Airport is at 13.3 km (S) from project site.
5. **Building details:** The project comprises of the following facilities: Residential Dwelling Units (528 nos.), Community Facilities and Swimming Pool. There will be two towers i.e., Block A = 3BHK + 4BHK + 5BHK (180 Dwelling units), Block B = 3BHK + 4BHK + 5BHK (348 Dwelling units) with Commercial and common amenity area. The maximum height of the Tower 103.5 m. The total plot area is 19,929.30 sqm and net plot area is 17,883.89 sqm. Total Built up area for the project will be 1,49,879.37sqm.
6. **Detailed area statement of the project:**

S. No.	Particulars	Existing (As per EC accorded) (m <sup>2</sup> )	Expansion (m <sup>2</sup> )	Post Expansion (m <sup>2</sup> )
1	Total Plot Area	13,618.57 (3.365 Acre)	6310.73 (1.559 Acre)	19,929.30 (4.925 Acre)
2	Net Plot Area	13,101.28	4,782.61	17,883.89

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*J. Nayak*  
Environmental Scientist, SEAC

3	Permissible Ground Coverage (@40% of net plot area)	5,240.512 (@40% of net plot area)	1,913.044	7,153.556 (@40% of net plot area)
4	Proposed Ground Coverage	4,860.12 (@37.1% of net plot area)	2,195.61 (@45.91% of net plot area)	7,055.73 (@39.45% of net plot area)
5	Permissible FAR	36,028.52 (@2.75 of net plot area)	71,274.82	1,07,303.34 (@6 of net plot area)
6	Proposed FAR	36,025.25 (@2.749 of net plot area)	70,997.01	1,07,022.26 (@5.98% of net plot area)
	Residential FAR	35,214.04	70,890.11	1,06,104.15
	Commercial FAR	811.21	106.9	918.11
7	Non-FAR area	9,535.71	33,321.4	42,857.11
	Stilt area	4,466.21	9,702.62	14,168.83
	Basement area	5,069.50	13,670.31	18,739.81
	Service Area	NIL	9,888.83	9,888.83
	Club House Service Area	NIL	59.64	59.64
8	Built-up Area	45,560.99*	1,04,318.38	1,49,879.37
9	Landscape Area	2,725.70 (21% of the Net Plot area)	651.41	3,377.11 (@18.88 % of Net Plot Area)
10	Maximum Height of the Building (m)	49.50	54.0	103.50
11	No. of Dwelling unit	180	348	528

7. **Water Requirement and waste water generation:** The total water requirement will be met from Ground water source which is approx. 489 KLD. Total domestic water requirement is 474 KLD, out of which freshwater requirement is approx. 312 KLD & flushing water will 162 KLD. The project will generate approx. 412 KLD of wastewater. The wastewater will be treated in an onsite STP of 563 KLD capacity. The treated effluent will be reused for flushing & horticulture partly. Surplus treated effluent will be discharged to external sewer.

	Description	Occupancy	Rate of water demand (LPCD)		Total Water Requirement (KLD)		
			Fresh	Flushing	Fresh	Flushing	Total
A.	Domestic Water						

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

• Residents	3,378	90	45	304.02	152.01	456.03
• Staff (Maintenance, Communities & Commercial, etc.)	200	25	20	5	4	9
• Visitors (Communities & Commercial, etc.)	612	5	10	3.06	6.12	9.18
				312.08 KLD say 312 KLD	162.13 KLD say 162 KLD	474.21 KLD say 474 KLD
<b>Total Domestic Water = 474 KLD</b>						
B.	Make-up water Swimming Pool	for	15.0 x 6.50 m	1 KLD		
C.	Horticulture	3,377.11 m <sup>2</sup>	4 l/sqm	14 KLD		
<b>Grand Total (A+B+C) = 489 KLD</b>						

<b>Domestic Water Requirement</b>	<b>474 KLD</b>
• Fresh	312 KLD
• Flushing	162 KLD
<b>Waste water [@80% fresh + 100% flushing]</b>	<b>250 + 162= 412 KLD</b>
<b>STP Capacity (20 % higher than waste water)</b>	<b>563 KLD</b>

S. No	Description	Value as per earlier EC (KLD)	Expansion (KLD)	Total Quantity (EC accorded +Expansion) (KLD)
1.	Total water demand	182.7	306.3	489
2.	Domestic Water Demand	150.6	323.4	474
3.	Fresh water	115.4	196.6	312
4.	Flushing water	50.2	111.8	162
5.	Waste water	132.48	279.52	412
6.	STP Capacity	150	+350	563

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*J. Jayakumar*  
Environmental Scientist, SEAC

8. **Rainwater harvesting details:** Total of 8 Rainwater Harvesting pits are proposed for artificial ground water recharge.
9. **Parking Proposed:** Total parking proposed is 551(Basement)+461(Stilt)+198 (Surface) = 1,210 ECS
10. **Power Requirement:** The power supply will be supplied by State Electricity Board. The requirement load for the project will be 3,728 kVA. There is provision of 2 nos. of DG sets total 1500 kVA capacity (i.e. 2 x 750 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.

	EC accorded	Expansion	Total (EC accorded + Expansion)
<b>Power Requirement</b>	1,460 kW	+2,268 kW	3,728 Kw
<b>D.G sets</b>	1 x 750 kVA	+1 x 750 kVA	1500 kVA (2 x 750 kVA)

S. No.	DESCRIPTION	SAVINGS (kVA)
1.	Solar based Lighting will be done in the common areas, stair cases, landscape areas, signage, entry gates and boundary walls etc. (5% from total power load) Norms for Rooftop PV systems Installation: Solar power back of a minimum generation capacity of 5% of the connected load (OR) 20 Watts/sq.feet on available roof space, whichever is less.	86.4 kVA
2.	LEDs will be used in all dwelling units.	85 kVA
3.	Outdoor and common are lighting shall be LED	15 kVA
<b>Total Energy Saved</b>		<b>186.4 kVA</b>
<b>Total Power load = 3,728 kVA</b>		
<b>Energy saved through various provisions =186.4 kVA TOTAL ENERGY SAVING = 10 %</b>		

11. **Solid waste generation:** The total solid waste generation will be 1,888 kg/day as per the following table.

S. No.	Description	Occupancy	Waste Generated (kg/capita/day)	Waste Generated (kg/day)
1.	<b>Domestic Solid Waste</b>			
	Residents	3,378	0.5	1689
	Staff	200	0.25	50
	Visitors	612	0.15	91.8
2.	Horticultural Waste (0.82 acre)	@ 0.2 kg/acre/day		0.243
3.	STP Sludge	Waste water x 0.35 x B.O.D difference/1000		56.83

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*Jayak*  
Environmental Scientist, SEAC

S. No.	Description	Occupancy	Waste Generated (kg/capita/day)	Waste Generated (kg/day)
<b>Total Solid Waste Generation = 1,887.873 say 1,888 kg/day</b>				

12. **Greenbelt:** Total green area measures 3,377.11 m<sup>2</sup> i.e. 18.88% of the net plot area which will include Plantation area=2,026.26 m<sup>2</sup> (11.33%) + Lawn area=1,350.85 m<sup>2</sup> (7.55%). No. of trees required 224 Nos. Total no. of trees proposed is 250 Nos.
13. **Project cost:** Total Project cost is INR 256 Cr. Including land and development cost. EMP cost includes capital cost of 81.5 lakhs and recurring cost of 24.85 lakhs.

EMP COMPONENT	EMP CAPITAL COST (INR LAKH)	EMP RECURRING COST (INR LAKH/YR)
Sewage Treatment Plant	50	6
Rain Water Harvesting Pits	15	3
Solid Waste Management	3.5	5
Environmental Monitoring	0	10
Green Area/ Landscape Area	3	0.75
Others (Energy saving devices, miscellaneous)	10	0.15
<b>Total</b>	<b>81.5</b>	<b>24.85</b>

14. **Environment Consultant:** M/s Grass Roots Research & Creation India (P) Ltd., Noida along with the proponent made a presentation on the proposal before the Committee on 20.11.2023.
15. The SEAC in its meeting held on 20-11-2023 recommended the following:
- The proponent may be asked to submit the following for further processing of EC application:
    - Clarification regarding the discrepancy/mismatch in plot/built up area in previous EC and proposed application.
    - Copy of document showing By-Laws that there should be 15% of total plot area for greenbelt. Further, the project proponent shall increase the greenbelt percentage up to 20%.
    - Copy of permission from Chief Engineer, Drainage for treated wastewater discharge into the nearby drain.
    - Copies of all clearances such as CTE, CTO from Pollution Control Board and other clearances obtained from the approved authorities.
    - Calculate the Parking Area in Percentage format.
    - Detailed note on the Chronology of events from the previous proposal to the current proposed.
    - Comparative table showing all environmental parameters of existing and proposed project.
    - Status of the project in regard to how much has been constructed as per Previous EC and what is proposed as per Revised proposal.

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)



- ix) Distance certificate from Eco-Sensitive Zone (ESZ) and Sanctuary from concerned DFO.
- x) Present 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) Any other issues including local issues.

16. 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.	Clarifications regarding the discrepancy/mismatch in plot/built up area in previous EC and proposed application.	A clarification letter has been issued by Bhubaneswar Development Authority vide their letter no.: 22/30/BDA, Bhubaneswar (File No.: BPIB-1136/13) dated 05.07.2023 w.r.t. the built-up area and the same is attached as <b>Annexure-I</b> .	---
2.	Copy of document showing By-Laws that there should be 15% of total plot area for greenbelt. Further, the project proponent shall increase the greenbelt percentage up to 20%.	Revised landscape plan showing 20.19% of plot area i.e., 3611.37 m <sup>2</sup> is attached as <b>Annexure-II</b> .	Landscape area shown is 3611.37m <sup>2</sup> for Phase-I and Phase-II.
3.	Copy of permission from Chief Engineer, Drainage for treated waste water discharge into the nearby drain.	EIDP Report has been obtained from BDA dated 21.06.2023 which had Technical Committee comprising of Deputy Director (CE Planning - DoWR), Executive Engineer (Drainage Division DoWR), Director-I (North & Central Planning - DoWR) and Chief Engineer (Drainage - DoWR) and the same is enclosed as <b>Annexure-III</b> .	----
4.	Copies of all clearances such as CTE, CTO from Pollution Control Board and other clearances obtained from the approved authorities.	Consent to Establish has been obtained from SPCB, Odisha dated 11.09.2023. Copy of the same is attached as <b>Annexure- IV (a)</b> . CGWA NOC has been obtained from competent authority vide application no. 21-4/5021/OR/INF/2023 dated 02.06.2023. Copy of the same is attached as <b>Annexure- IV(b)</b> NOC from Airport Authority of India has been obtained dated 10.04.2023 and copy of the same is attached as <b>Annexure- IV(c)</b> . NOC from DFO has been obtained w.r.t. Nandankanan WLS and copy of the same	CTO will may not be applicable for this proposal only CTE has obtained from SPCB.

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*Jayak*  
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		is attached as Annexure- IV(d) Fire safety recommendation has been obtained from competent authority and copy of the same is attached as Annexure-IV(e). Structure stability certificate has been obtained from National Institute of Technology, Rourkela and copy of the same is attached as Annexure-IV (f).	
5.	Calculate the Parking Area in Percentage format.	Details of parking area is enclosed as Annexure- V	31,220.34 sqm /1210ECS
6.	Detailed note on the Chronology of events from the previous proposal to the current proposed.	Chronology of the project is attached as Annexure-VI.	----
7.	Comparative table showing all environmental parameters of existing and proposed project.	Comparative details of EC obtained and the proposed expansion is attached as Annexure-VII.	----
8.	Status of the project in regard to how much has been constructed as per Previous EC and what is proposed as per revised proposal.	Current status of the project along with photographs is enclosed as Annexure-VIII.	----
9.	Distance certificate from Eco-Sensitive Zone (ESZ) and Sanctuary from concerned DFO.	NOC from DFO has been obtained from competent authority and copy of the same is attached as Annexure- IV(d).	----
10.	Present status of the existing project.	Current status of the project along with site photographs is enclosed as Annexure-VIII.	----
<b>Site visit points (PP has submitted additional ADS)</b>			
1.	Environmental settings of the project site.	ESZ boundary of Chandaka Dampara WLS is at the distance of 4 km towards west direction and ESZ boundary of Nandankanan WLS is at the distance of 1.17 km towards NW direction from the project site. DFO NOC has been obtained from competent authority and copy of the same is enclosed as Annexure- IV(d). 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 Annexure- VIII	----
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 km in east direction from the project site, NH 316A is approx. 6.8 km (ESE) away, NH55 is approx. 11.5 km (NE) away from the project site.	----
5.	Drainage network at the site.	Waste water discharge plan showing drain connectivity is attached as Annexure- IX.	----
6.	Discharge point for discharge of treated water and distance of the discharge point from the project site.	Details provided above in point no. 15.	----

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

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

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

- a) The Project site is located in Raghunathpur Bhubaneswar. The PP and Consultant were present. It is an ongoing project. The Layout plans were explained by the Project proponent and Consultant along with other associated documents. The site is connected to Nandankanan road and covered drain is existing in road side.
- b) There is no green belt at present which needs to be developed for the project and it should be minimum 20% of area.
- c) The PP has earlier obtained plan for built up area of about 45560 sq mt with FAR 36025 sq mt. But EC and Consent to establish was granted for 36025 sq mt (which seems to be a mistake). Meanwhile, there was change of ownership.
- d) The new owner started construction for 4 blocks and applied for expansion for another 4 blocks with revision in initial 4 blocks. BDA in their revised approval has given for 40840.64 sq mt due to some land going in road expansion for the first 4 blocks or towers and total 1,49919.89 sq mt (including the new 4 blocks/towers).
- e) Since the PP has constructed over 40, 000 sq mt approximately as informed. Following were sought from them:
  - i) Document with regard to their appeal for change of built-up area in initial EC and clarification obtained etc.
  - ii) Actual construction in 1<sup>st</sup> 4 blocks/towers certified by a BDA Architect against approved revised plan from BDA.
  - iii) Why the case cannot be considered as Violation?
  - iv) Permission of all statutory authority if not submitted. A chronology of various activities if not submitted
  - v) Permission to discharge excess storm and treated water to nearby existing drain with approval of drainage plan
  - vi) All other documents asked during presentation.

18. The SEAC in its meeting held on dated 29-01-2024 decided to take the decision on the proposal after receipt of the following from the proponent raised during site visit:

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Actual construction in 1 <sup>st</sup> 4 blocks/towers certified by a BDA Architect against approved revised plan from BDA.	EC letter has been obtained for Phase I having built up area of 36,025.25 m <sup>2</sup> . We have completed the construction upto built up area of 33,936.92 m <sup>2</sup> . The area has been confirmed by the architect of BDA. Construction status of the project obtained from BDA architect is attached as Annexure-I. We have also obtained permission from BDA.	Certificate from BDA Architect against approved revised plan from BDA has been submitted for 33,936.92 m <sup>2</sup> .

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*J Nayak*  
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		Copy of the same is attached as <b>Annexure-II</b> . Now, we have applied for Environmental Clearance with additional built-up area of 1,13,854.12 m <sup>2</sup> . Therefore, after obtaining the Environmental Clearance the total built up area will be 1,49,879.37 m <sup>2</sup> .	
2.	The CTE No.: 3117/RO-BBSR/NOC-2951 dated 11.09.2023 is for plot area of 13618.57 m <sup>2</sup> (Built up area 36025.25 m <sup>2</sup> ) for which EC was granted in 2014. Construction at the site has been done prior to obtaining CTE. Why the case cannot be considered as Violation?	EC letter has been obtained for Phase I having built up area of 36,025.25 m <sup>2</sup> . We have obtained the Consent to Establish from competent authority vide letter no. 3117/RO-BBSR/NOC- 2951 dated 11.09.2023 for the same built-up area of 36025.25 m <sup>2</sup> . Copy of the same is attached as <b>Annexure- III(a)</b> . While processing the CTE application we were fined Rs 8,00,000/- penalty as per clause no. 3.2 of guidelines for levy of pollution charge issued by State Pollution Control Board, Odisha to regularize the consent to establish (CTE) (copy of the same is enclosed as <b>Annexure III(b)</b> ). Copy of payment details is attached as <b>Annexure-III(c)</b> . Now, we have applied for Environment Clearance for expansion with an additional built-up area of 1,13,854.12 m <sup>2</sup> . We will obtain Consent to Establish for the same after obtaining Environmental Clearance. Further, we undertake that we will follow all norms and conditions stipulated in the environmental clearance, BDA and consent to establish.	The Project Proponent has already paid Rs. 8,00,000/- during processing of CTE application as penalty as per clause no. 3.2 of guidelines for levy of pollution charge issued by State Pollution Control Board, Odisha to regularize the consent to establish (CTE).
3.	Permission of all statutory authority if not submitted.	Permission from BDA is attached as <b>Annexure-II</b> . CGWA NOC has been obtained from competent authority. Copy of the same is attached as <b>Annexure-IV</b> . Fire Safety recommendation has been obtained from competent authority. Copy of the same is attached as <b>Annexure-V</b> . NOC from Airport Authority of India has been obtained and copy of the same is attached as <b>Annexure- VI</b> . NOC from DFO w.r.t. Chandaka Dampara and Nandankanan WLS has been obtained and copy of the	Copies submitted.

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
		same is attached as Annexure-VII. Wastewater discharge permission has been obtained from competent authority. Copy of the same is attached as Annexure-VIII.	

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

- i) The Proponent before implementation of the project shall convert the land to Gharabari and shall take the ownership of the land if not already taken.
- ii) The Proponent shall obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain without which the Proponent will not start construction work. Also, in case of the connecting drain passing through others land (Govt. or Private land), the Proponent shall obtain the permission and possession as the case may be.
- iii) The proponent shall use solar energy at least to the tune of 5% of total power requirement as proposed.
- iv) The proponent shall obtain permission from concerned Fire Safety Authority.
- v) Trees located within the project area shall be transplanted to alongside the boundary green development area.
- vi) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
- vii) The project proponent shall maximise utilisation of treated water in flushing, plantations and ground washings etc. as per need to reduce water discharge to drain. This shall be verified in future compliance report.
- viii) The PP shall comply 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.
- ix) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.
- x) The Technical committee report dated 20<sup>th</sup> June 2023 on EIDP under BDA (**Annexure VIII**) of submitted ADS has instructed for obtaining NOC from PWD officials for the proposed connection of the storm water drain to the existing PWD drain, which needs renovation to carry the extra discharge from the proposed project. The proponent shall obtain NoC from PWD for the proposed connection of the storm water drain to the existing PWD drain.

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*Trayak*  
Environmental Scientist, SEAC

**ITEM NO. 06**

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

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

S. No.	Particulars	Area (m <sup>2</sup> )
1.	Total Plot Area	4977.6
2.	Permissible Ground Coverage (@ 40% of the plot area)	1991.04
3.	Proposed Ground Coverage (@34.19 % of the plot area)	1701.84
4.	Permissible FAR (@5.0)	24,888
5.	Total Proposed FAR (@4.9486)	24,632
	Commercial FAR (@4.09% of total FAR)	1008
	Residential FAR (@95.91% of total FAR)	23,624
6.	Non-FAR Area	7735
	Fire Tower	1152
	Parking (Basement Parking = 5456.0 m <sup>2</sup> + Stilt parking = 1127.0 m <sup>2</sup> )	6583
7.	<b>Built-up Area (5 + 6)</b>	<b>32,367</b>
8.	Landscape Area (@ 20%)	995.52
9.	Maximum Height of the Building (m)	62.4 m

5. **Water Requirement:** The total water requirement for the project will be approx. 138 KLD out of which domestic water demand is 133 KLD. The freshwater requirement will be 87 KLD. It is expected that the project will generate approx. 116 KLD of wastewater. The wastewater will be

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

treated in onsite STP of 140 KLD capacity. The treated effluent will be reused for flushing & horticulture. Surplus treated effluent will be discharged to external sewer.

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

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

- Rainwater harvesting details: 1 Rainwater tank will be provided considering peak hourly rainfall has been considered as 160 mm/hr.
- Parking Proposed:** Total parking proposed for the project is 212 ECS.
- Power Requirement and solar details:** The power supply will be supplied by TPCODL. The load requirement for the project will be 1400 kVA. There is provision of 3 nos. of DG sets of 300 kVA capacity for power back up. The DG sets will be equipped with acoustic enclosure to minimize noise generation and adequate stack height for proper dispersion.

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

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*J Nayak*  
Environmental Scientist, SEAC

Total Power load = 1,400kVA  
 Energy saved through various provisions = 140 kVA  
 TOTAL ENERGY SAVING = 10%

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

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

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

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

COMPONENT	CAPITAL COST (INR LAKH)	RECURRING COST (INR LAKH/YR)
Sewage Treatment Plant	754.70	10
Rain Water Harvesting System	20	4
Solid Waste Management	7.5	0.50
Environmental Monitoring	0	9.0
Green Area/ Landscape Area	20	0.5
Others (Energy saving devices, miscellaneous)	40	2.5
<b>Total</b>	<b>162.5</b>	<b>26.5</b>

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

13. The SEAC recommended the following in the SEAC meeting held on 02.12.2023.

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

- Copy of permission for discharge of treated waste water to the nearby drain.
- Permission from Water Resource department, Govt. of Odisha for usage of ground water.
- The project proponent shall increase the number of Rainwater harvesting tanks.

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)



- iv) The project proponent shall furnish an undertaking that commercial unit shall only be used for residents purpose.
- v) Structural stability certificate vetted by institute of repute.
- vi) Traffic Study report to be vetted by institute of repute.

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

- a) Environmental settings of the project site.
- b) Extent of construction activity.
- c) Road connectivity to the project site.
- d) Drainage network at the site.
- e) Discharge point for discharge of treated water and distance of the discharge point from the project site.
- f) Greenbelt area.
- g) Any other issues including local issues

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
i)	Copy of permission for discharge of treated waste water to the nearby drain.	We have obtained permission from PH Division for the discharge of surplus treated water from STP and copy of same is attached as <b>Annexure-I</b> .	NOC letter from the Superintending Engineer, Public Health Division regarding own water supply and sewerage connection has been issued infavour of PP.
ii)	Permission from Water Resource department, Govt. of Odisha for usage of ground water.	We have obtained permission from CGWA for the abstraction of Groundwater and the copy of same is attached as <b>Annexure-II</b> .	NOC for 86.42KLD has been taken from CGWA and its valid till 2028.
iii)	The project proponent shall increase the number of Rainwater harvesting tanks.	The runoff from green and paved areas is not proposed to be collected as it has more turbidity and TSS. Even, if we provide collection tanks for paved and green area, we will have to compromise on green area and it will reduce to below 20%. Therefore, we have decided to discharge the runoff from green and paved area to external drain for which permission has been received from the department. Discharge permission is enclosed as <b>Annexure-III</b> .	Permission of disposal of storm water into natural drainage channel has been granted by BMC.
iv)	The project proponent shall furnish an undertaking that commercial unit shall only be used for residents purpose.	We confirm that the commercial units will only be used as Residential purposes. An undertaking for the same is attached as <b>Annexure-IV</b> .	Undertaking submitted.
v)	Structural stability certificate vetted by institute of repute.	The structural stability has been vetted by IIT, Guwahati. Copy of Structural Stability certificate is attached as <b>Annexure-V</b> .	Copy of Structural Stability certificate has submitted.

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*J Nayak*  
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
vi)	Traffic Study report to be vetted by institute of repute.	The traffic study has been vetted by reputed institute i.e. KIIT, Bhubaneswar, Odisha. Copy of same is attached as Annexure-VI.	As per the traffic study report LOS is "B" with or without project.
<b>Reply to Site visit points</b>			
1.	Environmental settings of the project site.	ESZ boundary of Chandaka Dampara WLS is at a distance of 4 km towards North direction from the project site. DFO NOCs w.r.t. Chandaka Dampara WLS are enclosed as Annexure- VII. There is no other ecologically sensitive location near the project site.	----
2.	Extent of construction activity.	No construction activity has been initiated at project site.	----
3.	Road connectivity to the project site.	The connecting road is Shreekhetra Residency Road towards West side of the project site. The Nearest Highway is NH-16 which is 0.2 km in South direction from the project site, NH-316 which is 9.4 km in East direction from the project site.	----
4.	Drainage network at the site.	Drainage plan is attached as Annexure-VIII.	----
5.	Discharge point for discharge of treated water and distance of the discharge point from the project site.	Plan showing discharge point for the discharge of surplus treated water from STP is attached as Annexure-VIII. The distance of the discharge point from the project site is 15 m.	----
6.	Greenbelt area.	Total green area measures 995.52 m <sup>2</sup> i.e. 20.0% of the plot area.	----
7.	Any other issues including local issues	No other issues.	----

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

- The Project site is located at Shankarpur, Bhubaneswar. PP was present along with consultant and explained the layout. It is a residential-cum-commercial project.
- There is no construction at present, it is empty land. The land is surrounded by residential houses. Care for stack discharge to be taken with all other safety precautions.
- As there is no drain in front of the site, the PP needs to obtained permission from the authority for construction of drain at road side and discharge of excess treated water and storm water to the nearby drain at a distance of 50 mt away along with drainage plan approved by the authority.
- PP was advised to increase the RWH pit from one to two to take care of storm water during excess rain.
- As it is also commercial, PP needs to submit revised layout with separate entry and exit for residential and commercial, also separate parking details for both residential and commercial along with breakup of % of parking for commercial, residential and visitors. All to be marked in the revised layout and submitted.
- All other points asked during presentation to be complied.

16. As per site visit report documents raised are:

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

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

- ii) PP was advised to increase the RWH pit from one to two to take care of storm water during excess rain - As per ADS submitted permission taken to discharge excess storm water into natural drainage.
- iii) As it is also commercial, PP needs to submit revised layout with separate entry and exit for residential and commercial, also separate parking details for both residential and commercial along with breakup of % of parking for commercial, residential and visitors. All to be marked in the revised layout and submitted. – As per ADS submitted Undertaking has been submitted by PP that commercial unit will be used by residents only.

17. The SEAC in its meeting held on 28.12.2023 decided to take decision on the proposal after receipt of the following from the project 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)	From ADS, the revised layout asked for submission showing separate entry & exit as well as parking for residential and commercial is not submitted. As the width facing road is less, this is essential for safety of residents.	Revised layout plan showing separate entry & exit as well as parking for residential and commercial is enclosed as <b>Annexure-I</b> .	Revised layout submitted showing separate entry & exit as well as parking for residential and commercial
ii)	From the permission letter for connection to drain, it is stated that, there is no drain available to site and permission could be considered once the same is available. Under this situation, the PP need to provide the alternate solution (documentary support) of discharge of excess treated effluents as there is no nearby drain point. This is required before grant of EC.	Permission from BMC along with an approved drainage plan is enclosed as <b>Annexure-II</b> . Also, we are submitting an affidavit that we will give occupancy to the residents after obtaining the drainage permission from the concerned department and the same is enclosed as <b>Annexure-III</b> .	Permission from BMC along with an approved drainage plan for storm water only. However, affidavit is submitted by PP that occupancy certificate will be issued only after obtaining permission from concerned drainage dept.
iii)	Status of permission from Water Resources department, Odisha for use of ground water for commercial use only.	NOC from CGWA has been obtained vide application no. 21-4/5033/OR/INF/2023 dated 07.06.2023. Copy of the same is enclosed as <b>Annexure-IV</b> .	Permission from Water Resources department, Odisha for use of ground water for commercial use has not been submitted. NOC from CGWA has been obtained, and copy of it has

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*T. Nayak*  
Environmental Scientist, SEAC

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

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

- i) Permission from Water Resources department, Odisha for use of ground water for commercial use shall be obtained.
- ii) Affidavit has submitted by PP that occupancy certificate will be issued only after obtaining permission from concerned drainage dept. for discharge of treated water in to nearby drain. The PP shall strictly follow it, failing to which EC shall be revoked.
- iii) 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.
- 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 project proponent shall ensure that commercial unit shall only be used for residential purpose.
- 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) All compliances submitted/ committed by PP(s) shall be strictly adhered to them in addition to all the conditions/ specific conditions of EC.

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

**ITEM NO. 07**

**PROPOSAL FOR ENVIRONMENTAL CLEARANCE FOR KATHAJODI RIVER SAND QUARRY, BAGULAPADA MINES ON RIVER KATHAJODI OVER AN AREA OF 5.26 HA./ 13.00 ACRE IN VILLAGE BAGULAPADA UNDER SADAR CUTTACK TAHASIL OF CUTTACK DISTRICT OF SRI RAJENDRA PRASAD SINGH – EC**

1. This proposal is for environmental clearance for Kathajodi river sand quarry, Bagulapada mines on river Kathajodi over an area of 5.26 ha. /13.00 Acre in village Bagulapada under Sadar Cuttack Tahasil of Cuttack district of Sri Rajendra Prasad Singh.
2. **Category:** As per the EIA Notification,2006 and its subsequent amendments, this project falls in category B under Schedule of activity 1(a) – Mining of Minerals.
3. **Project details:** The proposed mining project is the river bed sand mining on Kathajodi River at village Bagulapada under Sadar Cuttack Tahasil of Cuttack District, Odisha, over an area of 5.26Ha. or 13.00Acres out of which 3.889 Ha. area will be used for excavation of sand within the plan period and 0.971 Ha. area dedicated for safety zone/plantation purpose. Earlier the mining was carried out in the lease area and obtained environment clearance from SEIAA Odisha vide letter no 3858/SEIAA dated 14.08.2015 for five years. The lease period for the previous lease has been completed and now the lease will be freshly auctioned by Tahasildar, Cuttack sadar after obtaining Environment clearance and thus considered as a new lease after auction.
4. The Quarry lease has been proposed to be granted by the Tahasildar, Sadar Cuttack to the applicant (successful bidder) for minor mineral (River Sand) for five years.
5. As per the Director of Geology, Odisha, the mining plan has been approved by the Deputy Director of Geology, Cuttack, Odisha vide memo no.3162DG on dated 21.05.2020.
6. The mining lease is an identified sairat source in the DSR Sl. 5 in Annexure I.
7. **TOR details:** The Terms of Reference (ToRs) has been issued by SEAC, Odisha vide Letter No. 9652/SEIA on dated 19.11.2020.
8. **Public hearing details:** Public hearing was conducted on Dtd.05/11/2021 at 11.30 A.M. at Mattagajpur Park, Mattagajpur under Cuttack Sadar Tahasil in Cuttack District, by SPCB, Odisha, Bhubaneswar with assistance of SPCB Regional Office, Cuttack and District Administration, Cuttack Dist., Govt. of Odisha. Issues raised were plantation, water sprinkling provision to control dust pollution, river embankment strengthening and employment. A total of 12.80 lakhs has been earmarked by the proponent for the environment and peripheral development work as per the demand raised during public hearing consultation.
9. **Location and connectivity:** The proposed project is located in survey of India toposheet no. (73 H/3) & bounded between latitude of 20°26'14.38N to 20°26'21.22.15"N and longitudes of 85°56'21.52"E to 85°56'33.57"E bearing Khata No. 25, Plot no-116, Kisam-Nadi. Nearest Railway station is Cuttack Railway station at 5km from the project site. The nearest road is Cuttack Paradeep Road located at 1km. The site is well connected to NH-5 at 5km. Nearest airport is Bhubaneswar airport at 20km from the mining lease area. Water reservoir (Taladanda canal) is 1.5km away from the site. From the site, the nearest road bridge and habitation is 5.5km and 3km away respectively. River embankment is 1.0km away from the site.

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*J. Nayak*  
Environmental Scientist, SEAC

10. **Topography:** The land is the government land leased for excavation of river sand. There will be no change in land use pattern after the end of plan period as the land will remain as the part of Kathajodi river bed and the quarry area will be replenished during the rainy season. The sand bed is on the river Kathajodi. The Bagulapada sand bed deposit represents a gentle sloping to almost flat terrain with highest altitude of 21.5 Mrl. The general slope is towards east. There is no human settlement within the area.
11. **Replenishment report:** Replenishment study was conducted for pre & post monsoon period on May 2021 and October 2021. Ground survey by Total Station on 5 numbers of cross sections for pre monsoon and post monsoon and 1 numbers of longitudinal sections. River bed RL at selected points in the dry portions of Kathajodi river was measured during Pre-monsoon period (May 2021) and again during post-monsoon period (October 2021). It was observed that there is an average increase of river bed RL by 0.65m due to sediment deposition during the monsoon. The average width of the river as measured in the lease area is 113m and length is about 270 m. So replenished quantity of sand available in each year within the sand bed is 20000m<sup>3</sup>. The recoverable sand depth in the area is 2.2m and the mining operation will go up to maximum depth of 1.5m.
12. **Reserves and total production:** The total geological resource and mineable reserve for the quarry lease period has been estimated as 151758Cum and 116670 Cum. Similarly, the extractable mineable reserve of river bed sand for the QL period is worked out to be 70002Cum. Total production of sand in the proposed project is 14000cum/annum.

Year	Production of Sand (m <sup>3</sup> )
1 <sup>ST</sup> YEAR	14000
2 <sup>ND</sup> YEAR	14000
3 <sup>RD</sup> YEAR	14000
4 <sup>TH</sup> YEAR	14000
5 <sup>TH</sup> YEAR	14000
<b>Total</b>	<b>70,000</b>

13. **Mining method:** The method of excavation of sand from Bagulapada Sand quarry will be semi-mechanized open cast mining. The mode of the deposits, geomorphology of the area and its hydrological condition are some of the factors that favour the open cast method of mining. In this deposit, the mining is done by dry-pit method i.e., sand will be excavated within the active channel on dry intermittent or ephemeral stream beds. The excavator is used for removal of sand from the pits. The sands are extracted, loaded, and transferred from pits to the users through trucks and tractors. The mining is done on single shift basis. Benching pattern is not feasible in case of sand, as the angle of repose of sand is 35°, based on this the Ultimate pit slope Limit has been taken as 35°. The maximum depth of mining will be of 3 m or up to water table whichever is less.
14. **Water requirement:** For drinking & domestic purpose, water requirement will be 1 KLD, water requirement for green belt development and dust suppression will be 2 KLD. Ground water will be used for drinking and domestic purpose whereas surface water will be used for green belt development and dust suppression. So total water requirement for the proposed project is 3

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

KLD. A 10 KLD water tanker will be hired by the lessee for fulfilling both domestic and non-domestic water requirement for the mining.

15. **Baseline details:** The baseline information on ambient air quality, water quality, noise levels and soil quality have been generated for the period of October to December 2020.
- a) **Water quality:** From the surface water quality results, it can be inferred that all the parameters analysed are under the prescribed limit as per IS 2296:1982 as per class C and the water does not contain any pollutants which would be hazardous for human, animal or crop health. Ground water quality Ph ranges from 6.6 to 7.2. The Ph of the surface water in the study area is almost neutral. Total Dissolved Solids ranges from 96-480 mg/l. This indicates the presence of lower amount of ionic substance in the water. Total Hardness ranges from 54 to 198 mg/l and turbidity ranges from 0.3 to 0.9 mg/l.
- b) **Noise levels:** The study area includes industrial and residential areas. The ambient noise levels were measured in 8 sampling locations. In the project site the daytime noise level is 45.3 Db (A) and the nighttime noise level is 37.6 Db (A). The maximum noise level is 52.1Db (A) during the daytime at Purighat Village and minimum noise level is 32.3 Db (A) during the nighttime at Rajahansa Village.
- c) **Ambient Air Quality:** In the study area, the observed source of particulate matter is material handling and vehicular movement. During the study period, the concentration of PM<sub>10</sub> varies from 50 to 58µg/m<sup>3</sup>; the concentration of PM<sub>2.5</sub> varies from 20.1 to 27.2µg/m<sup>3</sup>. The concentration of SO<sub>2</sub> varies from 5.2-9.3 µg/m<sup>3</sup> and the concentration of Nox within the project site ranges between 11.8-20.5 µg/m<sup>3</sup>.
- d) **Soil quality:** The soil analysis result shows that the Ph of the soil is neutral (Ph 6.7-7.9) range. Bulk density ranges from 1.11 to 1.18g/cc, ToC ranges from 0.64 to 1.60 %, Electrical conductivity ranges from 81 to 277 µs/cm, available phosphorous ranges from 13.2 to 41.3 Kg/Ha, available nitrogen content ranges from 50.2 to 125.5 Kg/Ha and available Potassium content varies from 26.9 to 80.6 Kg/ Ha. The soil texture is loamy sand and colour is light brown to brown. Soil analysis result shows that the soil is low in fertility.
16. **Greenbelt:** It is proposed for planting @100 saplings of suitable species per annum by the lessee in vicinity of the riverbank as avenue plantation which is to be undertaken in consultation with the concerned authority. There is the proposal for development of green belt on both sides of the riverbank. The riverbank plantation will be carried out in the 1<sup>st</sup> year of mining operation.
17. **Employment generation:** Due to the proposed sand mining, there will be generation of employment for 21 persons. Out of which, 4 nos. are skilled, 06 nos. are semi –skilled and 10 nos. are unskilled and 1 supervisor.
18. **Project cost:** The total cost estimated for the proposed project is 10 lakhs. Cost towards implementation of Environment Management Plan (EMP) is 4 lakhs per annum.

Sl. No.	Particulars	Cost/ Annum (Rs.)
1.	Environmental Monitoring: Air, Noise 3 Point each and Water 2 points (Twice yearly)	Rs. 1.50Lakhs
2.	Water sprinkling on the haul road	Rs. 1.00 Lakhs
3.	Green belt development in riverbank	Rs. 1.00 Lakhs

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*T. N. Jayak*  
Environmental Scientist, SEAC

Sl. No.	Particulars	Cost/ Annum (Rs.)
4.	Occupational health	Rs. 0.50 Lakhs
Total		Rs. 4.00 Lakhs

19. **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 on 10.03.2023.
20. The SEAC in its meeting held on dated 10.03.2023 recommended the following:
- A) The proponent may be asked to submit the followings for further processing of EC application;
- Previous production figures as per Previous EC duly certified by concerned Tahasildar.
  - Permission/NOC from Irrigation Department for use of the approach road.
  - Traffic Study Report duly vetted by the reputed institution.
  - Number of cross sections taken for Replenishment Study Report with details of erosion and accreditation levels.
- B) The proposed site shall be visited by Sub-Committee of SEAC to verify the followings;
- Environmental settings of the lease area.
  - Mining activity, if any carried out in the lease area.
  - Sand deposit in lease area as KML file shows no sand deposit.
  - Road connectivity to the lease area.
  - Distance of the road and railway bridge from the boundary of the lease area.
  - Distance of embankment from sand deposit.
  - Any other issues including local issues.
21. The proposed site was visited by Sub-Committee of SEAC on dated 29.04.2023 and following observations were made:
- PP, Consultant and Revenue Supervisor of concerned Tahasil were present.
  - The sand site was not approachable as there was no road and the site could not be shown as there was no demarcation.
  - As per the coordinates shown through GPS at one side, it was observed that the major area was filled with bushes and few area with water bodies, excepting few pockets of sand at far places (not approachable).
  - High tension line was found to be close at one side, however the distance could not be accessed as the side was not approachable.
  - As the current site as proposed is not fit for mining of sand, it was suggested to modify the mining plan limiting to the few sand pockets in the lease area, without disturbing the areas covered with plants, bushes and water bodies. Further, keeping the safety zone the mineable reserve needs to be accessed from the visible sand pockets only. Approach road to be developed for safe transportation of sand. The revised mining plan and proposal as above

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)



certified by Tahasildar may be submitted for further action.

f) There was no bridge nearby.

g) **General observation:** As sand mining is dynamic in nature, it is suggested that the concerned Tahasildar may physically visit the site before auction.

22. The SEAC in its meeting held on dated **12.07.2023**, decided to recommend the proposal after the proponent furnish the following information / documents as pointed out by the Sub-Committee of SEAC in the site visit report dated 29.04.2023 in addition to the information/ documents as sought vide SEAC letter no. 246/ SEAC-(Misc)-28, dated: 17.04.2023.

a) As the current site as proposed is not fit for mining of sand, it was suggested to modify the mining plan limiting to the few sand pockets in the lease area, without disturbing the areas covered with plants, bushes and water bodies. Further, keeping the safety zone the mineable reserve needs to be accessed from the visible sand pockets only. Approach road to be developed for safe transportation of sand. The revised mining plan and proposal as above certified by Tahasildar may be submitted for further action.

b) The sand site was not approachable as there was no road and the site could not be shown as there was no demarcation. This has to be clarified.

c) As per the coordinates shown through GPS at one side, it was observed that the major area was filled with bushes and few areas with water bodies, excepting few pockets of sand at far places (not approachable). This has to be clarified.

d) High tension line was found to be close at one side, however the distance could not be accessed as the side was not approachable. Copy of Clearance from concerned authority to be submitted.

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

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	Previous production figures as per Previous EC duly certified by concerned Tahasildar.	Previous production details certified by Tahasildar attached as Annexure – 1.	Copy submitted
2.	Permission/NOC from Irrigation Department for use of the approach road.	NOC from irrigation department for use of the approach road attached as Annexure – 2.	Application for NOC from irrigation department has been accepted and has requested the Tahasildar to submit the details of lease holder.
3.	Traffic Study Report duly vetted by the reputed institution.	Traffic study has been carried out by M/s Kalyani Laboratories Private Limited (NABT accredited EIA Consultant) during the baseline study period and attached as Annexure – 3.	As per Traffic Study Report the LOS is "B".
4.	Number of cross sections taken for Replenishment Study Report with details of erosion and accreditation	Replenishment study has been carried out by M/s Geo Consultant Private Limited. Details of replenishment study with no. of cross section and	-

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

*J. N. J. J.*  
Environmental Scientist, SEAC

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
	levels.	accreditation of agency carried out the replenishment study is attached as Annexure - 4.	

**Additional document required as per the subcommittee of SEAC In the site visit report (SEAC Letter No. - 546(05)/SEAC-MISC-28 Dated 01.08.2023**

Sl. No.	Information Sought by SEAC	Compliance furnished by the proponent	Views of SEAC
1.	As the current site as proposed is not fit for mining of sand, it was suggested to modify the mining plan limiting to the few sand pockets in the lease area, without disturbing the areas covered with plants, bushes and water bodies. Further, keeping the safety zone the mineable reserve needs to be accessed from the visible sand pockets only. Approach road to be developed for safe transportation of sand. The revised mining plan and proposal as above certified by Tahasildar may be submitted for further action.	The Mining Plan has been revised and approved as per the requirement and certified by the Tahasildar. Revised Mining plan is attached as Annexure - 5.	Copy submitted
2.	The sand site was not approachable as there was no road and the site could not be shown as there was no demarcation. This has to be clarified.	The revised mining plan has been prepared and road demarcated in the mining plans submitted with the revised mining plan.	-
3.	As per the coordinates shown through GPS at one side, it was observed that the major area was filled with bushes and few areas with water bodies, excepting few pockets of sand at far places (not approachable). This has to be clarified.	Based on the suggestions the mining plan has revised based on availability of sand.	-
4.	High tension line was found to be close at one side, however the distance could not be accessed as the side was not approachable. Copy of Clearance from concerned authority to be submitted.	The HT line is outside the lease area. NOC has been obtained from JE, TPCODL is attached as Annexure - 6.	Copy submitted

**24. The SEAC observed the following:**


- a) Annexure-4 of the submitted ADS states a table containing 07 nos. cross sections considered at 50 m interval on riverbed sand surface of the mining lease area as per the replenishment study report. The reported accretions or these 07 points are in the range of 0.29 to 0.54 m. Hence the average increase of 0.65 m in the level of riverbed sand owing to deposit of sediments during monsoon as stated above.

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals - compliance received)

- b) The reported area of riverbed sand works out to 30,510 m<sup>2</sup> (113m X 270m), which is 2.774 times more than that mentioned in the approved mining plan (11000 m<sup>2</sup> mineable area). The approved mining plan is presented in Annexure-5 of the submitted ADS. The mineable area stated in the replenishment study report also needs to be compared and reconciled with above.

Considering the information furnished and the presentation made by the consultant, **M/s Kalyani Laboratories Pvt. Ltd, Bhubaneswar**, along with the project proponent, the SEAC recommended for grant of Environmental Clearance for the proposal valid upto lease period with stipulated conditions as per **Annexure – C** and following specific conditions:

- a) Amended EIA Notification dated 25<sup>th</sup> July, 2018, Guidelines for sustainable sand mining, 2016 and Enforcement and Monitoring Guidelines for Sand Mining, January 2020 of MoEF&CC, Govt. of India shall be adhered to in execution of Mining as per **Annexure – D**.
- b) In absence of proper Replenishment Study Report, the SEAC recommended sand for 1st year to a capacity of 60% of annual production capacity as approved in the mining plan.
- c) Provision of Bio-toilet shall be made at the site.
- d) Avenue plantation and plantation on both sides of the haulage road in consultation with/ on the advice of concerned Forest Department, Government of Odisha & W.R. Department Government of Odisha as well.
- e) Stone patching with plantation in between along the stretch of the bank associated with sand mining and necessary ramp construction shall be made.
- f) No natural water course shall be obstructed or diverted for the purpose of sand mining.
- g) As per Sand Sustainable Guidelines, 2020, the proponent shall ensure that no mining should be allowed below water level.

  
MEMBER SECRETARY, SEAC

Proceedings of the SEAC meeting held on 21.03.2024 (Old proposals – compliance received)

**CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR HOMI BHABHA CANCER HOSPITAL AND RESEARCH CENTRE WITH PLOT AREA OF 1,68,195.4 M2 (41.56 ACRE) AND BUILT-UP AREA OF 60,550 M2 UNDER PHASE – I AT VILLAGE PADANPUR, JATANI OF KHURDA DISTRICT OF TATA MEMORIAL CENTRE - 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 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 308 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

*Trayak*  
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. 3 RWH tanks of 700 m<sup>3</sup> capacity shall be provided.
17. Any ground water dewatering should be properly managed and shall conform to the approvals and the guidelines of the CGWA in the matter. Formal approval shall be taken from the CGWA for any ground water abstraction or dewatering. The proponent shall also obtain permission from Water Resources Department, Govt. of Odisha for drawl of water.
18. The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.

#### **SOLID WASTE MANAGEMENT**

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

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

### **SEWAGE TREATMENT PLANT**

24. Sewage shall be treated in STP of capacity 350 KLD. The treated effluent from STP shall be reused for flushing, 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. 34,530.51 sqm (20.53% 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 DNT INFRASTRUCTURES PRIVATE LIMITED FOR DEVELOP A 2B+G+19 STORIED RESIDENTIAL APARTMENT BUILDING OVER AN BUILT-UP AREA 42367.32 SQM LOCATED AT PLOT NO. 817/ 3417, KHATA NO.-890/99, IN MOUZA - SUNDARPUR, KHORDHA, BHUBANESHWAR OF SRI NIKUNJA KISHORE DAS - EC**

**PART A - SPECIFIC CONDITIONS:**

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

**TOPOGRAPHY AND NATURAL DRAINAGE**

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 71 KLD.
10. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed the quantity of water allotted to the project under consideration and the balance water available. This should be specified separately for ground water and surface water sources, ensuring

that there is no impact on other users.

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

#### **SOLID WASTE MANAGEMENT**

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

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

### **SEWAGE TREATMENT PLANT**

24. Sewage shall be treated in STP of capacity 100 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. 1262.20 sqm (21% 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.

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

**Stipulated Conditions:**

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

- of minerals through existing rural roads can be allowed only by the concerned Govt. Department/BDO and only after required strengthening, such that the carrying capacity of road is increased to handle the sand truck traffic. The project proponent shall bear the cost towards the widening and strengthening of existing public roads in case the same is proposed to be used for the project. No movement on any road is allowed on existing village road network without appropriately increasing the carrying capacity of such roads. Project proponent shall ensure that the road may not be damaged due to transportation of the mineral and transport of minerals will be as per IRC Guidelines with respect to complying with traffic congestion and traffic density. Plying of sand extraction trucks may be allowed on roads / path ways passing close to schools, temples, hospitals and such other public places only with prior written permission of competent authority.
10. Vehicles hired for transportation of sand from the site should be in good condition and should have pollution check certificate and should conform to applicable air and noise emission standards and should be operated only during non-peak hours.
  11. The vehicles shall not be overloaded and shall be covered with Tarpaulin. The Tahasildar may collect an appropriate road maintenance levy from the lessee as part of the lease conditions on the basis of quantum of sand transported, and utilize the proceeds of the levy for proper maintenance of the extraction paths and roads to prevent their degradation on account of plying of sand trucks.
  12. The project proponent shall take all precautionary measures against causing damage to flora and fauna of the locality. The PP shall plant and nurse to full establishment a minimum of 50 number of saplings of native tree species along the approach roads, river banks and in community areas in consultation with the Gram Panchayat.
  13. Water spray should be made on the road/extraction paths to control dust emission during transportation of sand.
  14. The Project Proponent shall undertake phased restoration, reclamation and rehabilitation of land affected by mining and completes this work before abandonment of mine.
  15. Environmental Management Plan (EMP) shall be implemented by PP to ensure compliance with the environmental conditions specified above. The year wise funds earmarked for environmental protection measures shall be kept in separate account and shall be spent according to the plan proposed. Year wise progress of implementation of EMP shall be reported to the SEIAA, Odisha and OSPCB along with the compliance report.
  16. The proponent shall take necessary measures to ensure that there is no adverse impact of the mining operations on the human habitation if any, existing nearby.
  17. It shall be mandatory for the project management to submit quarterly compliance reports on the status of implementation of the above stipulated environmental safeguards to the SEIAA, Odisha / SPCB, Odisha/ Regional Office of the MoEF&CC, Bhubaneswar, in hard and soft copies on 1<sup>st</sup> day of January, April, July, October of each calendar year, failing which EC is liable to be revoked.

18. River Bank stabilization shall be made through stone patching. Plantation of adequate number native species on river banks and both sides of haulage roads shall be made.
19. During transportation of sand, all traffic safety measures shall be taken to avoid any kind of accidents.
20. Bio - toilet provision shall be made.
21. Stone patching on river bank with plantation in-between and the ramp construction shall be done in consultation with and advice of concerned W.R.Deptt, Government of Odisha.
22. Necessary sprinkling on Haulage Road and Avenue plantation shall be done.
23. At the end of mine closure, the proponent shall immediately remove all the sheds put up in the quarry and all the equipment in the area before closure of the quarry.
24. The conditions stipulated in the environmental clearance will be closely monitored on the ground by the lease granting authority, i.e. the Tahasildar, who shall ensure compliance of the stipulated conditions and take corrective measures promptly in case of any non- compliance and also ensure that the project proponent submits quarterly compliance reports.
25. The concerned Regional Office of the MoEF&CC/ SPCB, Odisha shall periodically monitor compliance of the stipulated conditions as applicable for this project. The project authorities should extend full cooperation to the MoEF&CC officer(s)/SPCB officer(s) by furnishing the requisite data / information / monitoring reports.
26. A copy of the clearance letter shall be sent by the proponent to concerned Gram Panchayat /Panchayat Samiti /Zilla Parisad /Municipal Corporation / Urban Local Body as the case may be.
27. Project proponent shall obtain Consent to Operate from the OSPCB and effectively implement all the conditions stipulated therein. The mining activity shall not commence prior to obtaining Consent to Establish / Consent to Operate from the State Pollution Control Board.
28. The SEIAA, Odisha may revoke or suspend this EC, if implementation of any of the above conditions is not satisfactory. The SEIAA, Odisha reserves the right to alter /modify the above conditions or stipulate any further condition in the interest of environment protection.
29. The Project Proponent (lease holder) shall inform the SEIAA of any change in ownership of the mining lease. In case, there is any change in ownership or mining lease is transferred, then mining operation can be carried out only after transfer of EC as per provisions of the para 11 of EIA Notification, 2006, as amended from time to time.
30. Concealing any factual information or submission of false/fabricated data and failure to comply with any of the conditions mentioned above may result in withdrawal of this environment clearance besides attracting penal provisions in the Environment (Protection) Act, 1986.

*J Nayak*  
Environmental Scientist, SEAC

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

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

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

*J. Nayak*  
Environmental Scientist, SEAC



**CONDITIONS TO BE STIPULATED IN ENVIRONMENTAL CLEARANCE FOR M/S OU INFRA PROJECTS PRIVATE LIMITED FOR RESIDENTIAL APARTMENT PROJECT "9 BOULEVARD" OVER A BUILT-UP AREA 1,49,879.37 M<sup>2</sup> AT MOUZA-RAGHUNATHPUR, TEHSIL-BHUBANESWAR DISTRICT-KHURDA OF SRI SIDDHARTH SEKHAR MOHAPATRA - 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 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 312KLD.
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

*Trayak*  
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 563 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. 3611.37 sqm (20.19% 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.

*J Nayak*  
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. ARCHID BUILDERS PRIVATE LIMITED FOR RESIDENTIAL CUM COMMERCIAL PROJECT TOTAL LAND AREA IS 4,977.6 M<sup>2</sup> (1.23 ACRES) AND THE TOTAL PROPOSED BUILT-UP AREA IS 32,367.0 M<sup>2</sup> LOCATED AT MOUZA- SHANKARPUR AND AIGANIA, TEHSIL- BHUBANESWAR, DISTRICT- KHURDA OF SRI BANDAN MOHANTY – EC.**

---

**PART A - SPECIFIC CONDITIONS:**

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

**TOPOGRAPHY AND NATURAL DRAINAGE**

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

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

9. As proposed, fresh water requirement from ground water shall not exceed 87 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.

*J Nayak*  
Environmental Scientist, SEAC

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

#### **SOLID WASTE MANAGEMENT**

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



23. A certificate from the competent authority handling municipal solid wastes, indicating the 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 140 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. 995.52 m<sup>2</sup> (20% of 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

- 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.