



Government of India  
Ministry of Environment, Forest and Climate Change  
(Issued by the State Environment Impact Assessment  
Authority(SEIAA), ODISHA)

To,

The -1  
ACREPLEX REALTY PRIVATE LIMITED  
Plot no. A/295 Shahid Nagar Bhubaneshwar -751007

**Subject:** Grant of Environmental Clearance (EC) to the proposed Project Activity under the provision of EIA Notification 2006-regarding

Sir/Madam,

This is in reference to your application for Environmental Clearance (EC) in respect of project submitted to the SEIAA vide proposal number SIA/OR/INFRA2/452328/2023 dated 15 Nov 2023. The particulars of the environmental clearance granted to the project are as below.

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|--|--|
| 1. EC Identification No.                   | EC24B039OR131874   |
| 2. File No.                                | 452328/518-INFRA2/11-2023  |
| 3. Project Type                            | New  |
| 4. Category                                | B  |
| 5. Project/Activity including Schedule No. | 8(b) Townships and Area Development projects.  |
| 6. Name of Project                         | Residential Project at Mouza Uttarmundamuhan, Tehsil-Jatani, District-Khurdha; Odisha by M/s Acreplex Realty Pvt Ltd |
| 7. Name of Company/Organization            | ACREPLEX REALTY PRIVATE LIMITED  |
| 8. Location of Project                     | ODISHA   |
| 9. TOR Date                                | N/A  |

The project details along with terms and conditions are appended herewith from page no 2 onwards.

Date: 19/03/2024

(e-signed)  
Dr. K. Murugesan, IFS  
Member Secretary  
SEIAA - (ODISHA)

*Note: A valid environmental clearance shall be one that has EC identification number & E-Sign generated from PARIVESH. Please quote identification number in all future correspondence.*

*This is a computer generated cover page.*

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**SEIAA File No. 452328/518-INFRA2/11-2023**

**Subject: Application of EC of M/s Acreplex Realty Pvt. Ltd. for Environmental Clearance of proposed construction of 'Residential Project' over a Plot area of 23,318.25 Sqmt. (5.76 Acres) with Total Built up area of 1,81,539.58 Sqmt. located at Mouza- Uttarmundamuhan, Tahasil – Jatani, District – Khordha- Environmental Clearance reg.**

This has reference to your online proposal No. SIA/OR/INFRA2/452328/2023 dated 15.11.2023, submitted in SEIAA, Odisha for grant of Environmental Clearance (EC) for proposed Construction of 'Residential Project' Over a Plot area of 23,318.25 Sqmt.(5.76 Acres) with Total Built up area of 1,81,539.58 Sqmt. located at Mouza- Uttarmundamuhan, Tahasil – Jatani, District – Khordha filed by Sri. Shashikant Barik, Director in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act,1986 and subsequent amendments thereto.

**2.Proposal in Brief:-**

Proposal No.	SIA/OR/INFRA2/452328/2023
Date of application	15.11.2023
File no.	452328/518-INFRA2/11-2023
Project Type	Proposal for EC
Category	B1
Project/Activity including Schedule No.	8(b)- Townships and Area Development projects
Name of the Project	Proposal for Environmental Clearance of M/s Acreplex Realty Pvt. Ltd. for Proposed construction of 'Residential Project' Over a Plot area of 23,318.25 Sqmt.(5.76 Acres) with Total Built up area of 1,81,539.58 Sqmt. located at Mouza- Uttarmundamuhan, Tahasil- Jatani, District-Khordha.
Name of the company/Organization	Applicant:-M/s Acreplex Realty Pvt.Ltd; Sri. Shashikant Barik, Director
Location of Project	Mouza- Uttarmundamuhan, Tahasil-Jatani, District-Khordha

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## STATE ENVIRONMENT IMPACT ASSESSMENT AUTHORITY, ODISHA

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statutory body constituted by Ministry of Environment, Forest & Climate Change under Environment  
(Protection) Act, 1986

**3. Project Details:** The highlights of the proposal as ascertained from the application and as revealed from proceedings/discussion held during the meeting of SEAC/SEIAA, are given as under.

- (i) This is a proposal of M/s Acreplex Realty Pvt. Ltd. for Environmental Clearance of proposed construction of 'Residential Project' over a Plot area of 23,318.25 Sqmt. (5.76 Acres) with Total Built up area of 1,81,539.58 Sqmt. located at Mouza-Uttarmundamuhan, Tahasil – Jatani, District – Khordha filed by Sri. Shashikant Barik, Director.
- (ii) TOR Details: Terms of Reference was issued by SEIAA, Odisha vide File No. SIA/OR/INFRA2/447018/2023 dated 06.11.2023 for the proposed project for undertaking detailed EIA studies.
- (iii) Location and connectivity:-The proposed project is located at Plot No. 419,437/1078, 425, 440, 422, 423/2294, 421, 420, 414, 441, 426/4153, 430/4152, 426/3487; 426/4139, 426, 426/1203, Mouza – Uttarmundamuhan, Tahasil – Jatani, District – Khurdha, Odisha The geographical co-ordinates of project site are 20°13'17.87"N and 85°43'28.94"E and Kisam of land is Gharabari. The nearest highway is NH-57 is 10 km towards SW direction, NH-16 is 0.20 km towards N direction, NH-316 is 13 km towards E direction, & SH-13 is 7 km towards S direction. The nearest Railway Station being Bhubaneswar Railway Station & Retang Railway Station are about 13 km (ENE) & 5 km (ESE) away from the project site. Biju Patnaik International Airport is at 10 km (ENE) from project site. Bhargavi River is 14Km I from project site. Daya River is 9.8 Km (SE) of project site. Daya canal is 7 Km I of project site. Eco sensitive Zone of Chandaka Dampara Wildlife Sanctuary is 5.90 km.
- (iv) Area details: The total plot area is 23,318.25 Sqmt. Total Built up area for the project is 1,81,539.58 Sqmt. The total population of project is estimated to be 771 Inos. of persons.

The project consists of:

- Residential Dwelling Units (1008 nos.)
- Commercial Space
- Swimming Pool
- Children's Play Area

Sl. No.	Particulars	Area (sq.m.)
i)	Total plot area	23,318.25
ii)	Permissible Ground coverage (@40% of plot area)	9,327.3
iii)	Proposed Ground coverage (@30% of the plot area)	6993.16

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iv)	Permissible FAR (@7.0 of the Net plot area)	1,63,227.96
v)	Proposed FAR (@ 5.43 of Net plot area)	1,26,672.59
vi)	Non-FAR area	54,866.99
vii)	Total Built-up Area	1,81,539.58
viii)	Height of the tallest building (m)	113.95m

- (v) Water Requirement: During operational phase, total water requirement of the project is expected to be 949 KLD, out of which domestic water requirement is 872KLD (574 KLD of fresh make up water and 298 KLD recycled Water). Freshwater requirement of 596KLD will be met by ground water/bore wells.
- (vi) Waste Water Generation & Management: The PP has submitted that wastewater generation from project will be 757 KLD and the same will be treated in a STP of 835 KLD capacity. About 681 KLD of treated wastewater will be recycled and reused for flushing and horticulture. Surplus water from STP, if any will be discharged to external sewers after getting due permission from the competent authority.
- (vii) Rainwater harvesting details: Rainwater harvesting has been catered to and designed as per the guidelines of CGWA. Peak hourly rainfall has been considered as 160 mm/hr. The RWH tanks will be constructed for recharging the storm water. Inside the recharge tank, a recharge bore is constructed having adequate diameter and depth. The bottom of the recharge structure will be kept 5 m above this level. At the bottom of the recharge well, a filter media is provided to avoid choking of the recharge bore. Total of 10 rainwater harvesting structure with each capacity 99cum are proposed for artificial ground water recharge.
- (viii) Power requirement: The requirement load for the project will be 4558 kVA. The power supply will be supplied by State Electricity Board. There is provision of 3 nos. of DG sets total 2375 kVA (1 x 1250 + 1 x 625 + 1x 500 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. Solar based lighting is proposed in the landscape area, signage, entry gates and boundary walls etc., and LED lighting to save about 5% of total power requirement.
- (ix) Parking Proposed: Total parking proposed is 38,331 Sqmt.
- (x) Solid Waste Generation & Management: The PP has submitted that about 3472kg/day solid wastes will be generated in the project. The biodegradable waste 2777 kg/day will be processed in OWC and the non-biodegradable waste generated 695 kg/day will be handed over to authorized local vendors. Horticultural waste and STP sludge would be used as manure. Spent oil from DG sets will be disposed-off through approved recyclers. All solid waste disposal in the project will be as per Solid Waste Management Rules, 2016 & amendments thereafter.

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- (xi) Greenbelt: Total green area measures 5074.98 Sqmt. i.e. 21.8% of the net plot area. Evergreen tall and ornamental trees have been proposed to be planted inside the premises. No. of trees required = 1 tree/80 sq.m. of plot area =  $23,318.25/80 = 291$  Nos. Total no. of trees proposed = 291 trees.
- (xii) Baseline details: Base line data has been generated during March'2023 to May'2023. All the parameters w.r.t to air quality, water quality and soil quality are within the prescribed limits as per the provision of CPCB guidelines.
- (xiii) Project cost: Total estimated cost of the project is INR 500.00 crores. The capital cost for environmental management of the proposed project is estimated to be Rs. 152.986 lakhs as capital cost and Rs. 50.246 lakhs/year as annual recurring expenses for implementing the measures.
- (xiv) The Environment consultant M/s Grass Roots Research & Creation India (P) Ltd., Noida, U.P. along with the proponent made a presentation on the proposal before the Committee on dated 02.12.2023.
- (xv) The proposed site was visited by Sub-Committee of SEAC on dated 26.12.2023 and following are the observations as mentioned below:
- The Residential Project site is located by the side of National High Way No 16 in between Bhubaneswar and Khordha. The team were present along with consultant and explained the layout.
  - There is no construction at present; it is empty land without house.
  - PP needs to obtain permission from the authority for discharge of excess treated water and storm water to the nearby Nala including any construction required for the same to the Nala at a distance of about 100-150 mt away along with drainage plan approved by the authority. Permission from NH authority is required in case they plan to discharge to the NH side drain.
  - PP needs to submit copy of POA mentioning the revenue plots with copy of relevant revenue map for their use.
  - PP to revise greenbelt to be minimum 20% and inform the width of fire corridor as per fire authority requirement.
- (xvi) The PP submitted ADS and also furnished the compliance to observations of Sub-Committee of SEAC on 11.01.2024.
4. This proposal conforms to the item no. 8(b)- 'Township & Area Development projects' in the schedule of EIA Notification, 2006 as amended time to time, and the Building & Construction project falls under Category B1 as the built-up area of the project is  $\geq 1,50,000$ Sqmt.
5. The SEAC have appraised the proposal for consideration of EC in its meeting dated 29.01.2024 and recommended for grant of Environmental Clearance for the project valid for a period of 10 years, stipulating various conditions.

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6. The matter was further examined in the State Environment Impact Assessment Authority (SEIAA), Odisha in its 160<sup>th</sup> meeting held on 12.03.2024, recommendation of SEAC and in accordance with the EIA Notification, 2006 and further amendments thereto. After detailed deliberation in the matter, the Authority decided to grant EC subject to additional specific conditions and conditions as recommended by SEAC.
7. **Environmental Clearance (EC) is granted to the project valid for a period of 10 years under the provisions of EIA Notification No. S.O. 1533 (E) dated the 14<sup>th</sup> September, 2006 of the Government of India in the erstwhile Ministry of Environment and Forests, as amended from time to time for “proposed Construction of ‘Residential Project’ over a Plot area of 23,318.25 Sqmt. (5.76 Acres) with Total Built up area of 1,81,539.58 Sqmt. located at Mouza- Uttarmundamuhan, Tahasil – Jatani, District – Khordha by M/s Acreplex Realty Pvt. Ltd.” with the following stipulations, environmental conditions and safeguards.**

**A. STIPULATIONS AT A GLANCE:**

- 7.1 The following thrust area of environmental sustainability shall be adhered to by the project proponent comprising of **15 parameters and EC stipulations** mentioned against each parameter:

Sl.No.	Parameters	EC Stipulations
(a)	Brief description of the project	<ul style="list-style-type: none"><li>➤ proposed construction of ‘Residential Project’ over a Plot area of 23,318.25 Sqmt.(5.76Acres) with Total Built up area of 1,81,539.58 Sqmt. located at Mouza- Uttarmundamuhan, Tahasil – Jatani, District – Khordha.</li><li>➤ Estimated Population of the Project- 7711 Persons</li></ul>
(b)	Environmental impact on project land	<ul style="list-style-type: none"><li>➤ Total plot area- 23,318.25 Sqmt.</li><li>➤ Total Built-up Area-1,81,539.58 Sqmt.</li><li>➤ FAR Area: - 1,26,672.59 Sqmt</li><li>➤ Total No. of Dwelling Units-1008Nos.</li><li>➤ Height of the Tallest Building- 113.95 meter</li></ul>
(c)	Water Requirement	<ul style="list-style-type: none"><li>➤ Total water requirement-949KLD</li><li>➤ Total fresh makeup water requirement- 596KLD</li></ul>

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(d)	Waste Water Treatment	<ul style="list-style-type: none"><li>➤ Waste Water Generation-757KLD</li><li>➤ STP Capacity of 835KLD to be installed.</li><li>➤ Net Zero Liquid Discharge (ZLD) from project site during non-monsoon period. During monsoon period, only surface run off water is allowed to be discharged to nearest drain after getting NOC from BMC/competent authority.</li></ul>
(e)	Drainage	<ul style="list-style-type: none"><li>➤ PP is required to submit site specific drainage plan and NOC from BMC/competent authority as the case may be, for discharge of storm water to the nearest drain.</li></ul>
(f)	Ground water	<ul style="list-style-type: none"><li>➤ Not allowed during construction.</li><li>➤ After Construction with permission from WRD/CGWB.</li><li>➤ 10nos.of RWH tanks of adequate capacity to be constructed within the premises.</li></ul>
(g)	Solid Waste Generation & Management	<ul style="list-style-type: none"><li>➤ Total Solid waste generated- 3472kg/day</li><li>➤ Organic Waste Converter (OWC) of adequate capacity to be installed within the premises to treat compostable waste.</li><li>➤ Inorganic waste (inerts) to be disposed off through authorized vendor.</li></ul>
(h)	Air Quality & Noise levels	<ul style="list-style-type: none"><li>➤ Maximum ambient noise level of 55dB to be maintained during construction.</li><li>➤ DG Set of capacity 1 x 1250 + 1 x 625 + 1x 500 kVA to be installed. Stack height to be provided as per norms of CPCB.</li></ul>
(i)	Energy Conservation	<ul style="list-style-type: none"><li>➤ Solar power to be installed- 228kVA(5% minimum of total power required).</li></ul>

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		➤ Flyash brick, AACs, other environmental friendly bricks & blocks to be used-20%
(j)	Traffic Circulation	➤ Minimum width of the access road (right of way) shall be 30m-45m as height of building is above 60m. ➤ 38,331Sqmt parking space to be provided with e-vehicle charging facility.
(k)	Green Belt Development	➤ 5074.98 sqm (21.8% of Plot area) to be raised before occupancy.
(l)	Disaster /Risk Management Plan	➤ Firefighting system shall be provided as per the fire NOC.
(m)	Socio Economic & CSR	➤ A First Aid Room & house owner society office with assembly hall, swimming pool, etc to be provided in the project.
(n)	Environment Management Plan (EMP)	➤ EMP cost: Rs. 152.986Lakhs as capital cost & Rs. 50.246Lakhs as recurring cost to be utilized each year.
(o)	Any other related parameter of the project	➤ The Project Proponent shall convert the land to Gharabari and shall take the ownership of the land if not already taken.

**7.2 Any change in the EC stipulations of the parameters above shall require prior approval of SEIAA. The PP is required to obtain amendment in EC before making any changes, failing which it will be construed as violation under Environment (P) Act,1986.** The Project Proponent shall ensure submission of all permission/documents as applicable to the project for monitoring of compliance of EC conditions. These certificates/permission/documents should be submitted by the PP to SPCB, BMC/BDA, SEIAA, Odisha and to the Integrated Regional Office of MoEF & CC, Govt. of India who can assess / evaluate / monitor the compliance of conditions of EC order of the project to ensure sustainable environmental management due to the proposed project.

**7.3 The SPCB, Odisha shall ensure that there is no change in the project w.r.t. the EC stipulations mentioned against each 15 parameters before giving 'Consent to**

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**Operate' to this project and by the local urban bodies and the BMC/BDA while giving the 'Occupancy Certificate' to this project.**

**B. SPECIFIC ENVIRONMENTAL CONDITIONS AND SAFEGUARDS WHICH NEED TO BE COMPLIED WITH BY THE PROJECT PROPONENT BEFORE BREAKING OF LAND:**

**7.4 Statutory Compliance:**

- (i) The project proponent shall obtain permission from the concerned authority for discharge of excess treated water and storm water to the nearby Nala including any construction required for the same to the Nala at a distance of about 100-150 mt away along with drainage plan approved by the authority. Permission from NH authority shall also be taken in case they plan to discharge to the NH side drain.
- (ii) The project proponent has submitted approval of the Chief Engineer drainage Ref.BP.BDA.2023-07-01-018744 of the Bhubaneswar Development Authority. The PP must ensure compliance with the stipulated mandatory condition that the plinth / setback level to be minimum 0.6 m above the road level for preventing water logging in the project area. Other stipulated conditions in the above-mentioned approval that inter alia includes construction of additional rainwater harvesting structures other than 10 nos. already proposed etc. also needs to be complied. The PP also must ensure proper land surface access / right for constructing the discharge drain from the project site to the approved discharge points.
- (iii) The proponent shall obtain permission for 396KLD used in the project from Water Resources department, Odisha/CGWB as the case, may be.
- (iv) The PP shall bear the cost of EIDP and implement the same.
- (v) The Proponent shall also obtain permission/NOC from Executive Engg. (PHD) and / or from the appropriate authority for disposal of excess STP treated water to the nearest drain and also submit the same to SEIAA, Odisha before start of 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.
- (vi) The approval of the Competent Authority shall be obtained in regard to structural safety of buildings against earthquake, adequacy of fire-fighting equipment as per National Building Code including protection measures from lightning.
- (vii) The project proponent shall obtain all necessary clearance/ permission from all concerned agencies including BMC/BDA authority before commencement of work in

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- accordance with the local building byelaws.
- (viii) The proponent shall obtain permission from concerned Fire Safety Authority.
  - (ix) The Construction and Demolition waste to be generated during demolition of existing structure shall be managed as per Construction and Demolition Waste Management Rules, 2016.
  - (x) The proponent shall implement the Pollution Control Measures and safeguards as proposed in the Environment Management Plan (EMP) of project report.
  - (xi) Rain water harvesting shall be designed considering the maximum rainfall of a year and accordingly, number of RWH shall be implemented.
  - (xii) 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 to the project by the project proponent from the respective competent authorities.
  - (xiii) 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.
  - (xiv) 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. The EC letter shall also be displayed at the Regional Office, District Industries centre and Collector's Office/ Tahsildar's office for 30 days.

**C. SPECIFIC ENVIRONMENTAL CONDITIONS AND SAFEGUARDS WHICH NEED TO BE COMPLIED WITH BY THE PROJECT PROPONENT DURING CONSTRUCTION PHASE:**

- 7.5 Water Requirement:** (i) The project shall adopt & implement net 'Zero liquid discharge' principle and shall maximize recycling and reuse of treated waste water generated in the project. All waste water generated shall be treated in the STP and the

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treated waste water shall be recycled and reused within the project so as to minimize extraction of ground water. Also ground water recharge by surplus waste water in the project plot area shall be maximized. For discharge of any quantity of treated waste water to outside the project area premises, the exact location of drain, etc. to which such discharge will be made and permission of competent authority allowing such discharge have to be reported. The layout of pipe lines, etc to take the waste water to the approved discharge point has to be elaborately depicted on map and submitted. The EC is liable to be revoked if such report is not submitted by PP.

- (ii) No ground water shall be extracted for the project work at any stage during the construction phase without obtaining the permission from the Water Resources Department, Govt. of Odisha/ CGWB.
- (iii) 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.
- (iv) When the public water supply will be available adjacent to/ in the vicinity of the proposed project in future, the PP shall avail it following due procedure of the Govt if the concerned authority agrees and dispense with the drawl of ground water except one borewell for emergency purpose. The PP shall take up suitably for the purpose with the concerned authority of the Government.
- (v) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.

**7.6 Disposal of Solid Waste:** The solid waste shall be duly segregated into biodegradable and non-biodegradable components and handled in separate areas earmarked for segregation of solid waste, as per Solid Waste Management Rules, 2016. The biodegradable waste generated shall be utilized through the Organic Waste Converter to be installed at the project site. Solid waste disposal shall be by micro composting of all bio degradable waste inside the premises. The inert waste (bio-non degradable components like plastics) shall be disposed off as per norms only at authorized site. The mode of disposal of all such waste at any approved site shall be reported, even if it is handed over to any authorized vendor. Construction & Demolition (C&D) waste from the project (debris) shall be segregated and managed as per C&D Waste Management Rules, 2016 and the detailed mode of disposal to the

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final disposal point shall also be reported. The PP shall formulate a concrete implementation plan and submit a report showing on the layout plan of the final disposal point of biodegradable waste, non-biodegradable waste and debris generated during construction. The EC is likely to be revoked if such report is not submitted by PP.

- 7.7 Air Quality Management and Noise Management:** (i) 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, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site. Sand, murram, 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.
- (ii) 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.
- (iii) 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.
- (iv) Ambient noise levels shall conform to residential standard both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000 for the project. 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.

- 7.8 Natural Drainage:** (i) 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.

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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.

- (ii) 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.

**7.9 Provision for construction labour:** (i) 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.

- (ii) A First Aid Room shall be provided in the project both during construction and operations of the project.

**7.10 Top Soil Preservation and Reuse:** 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.

**D. SPECIFIC ENVIRONMENTAL CONDITIONS AND SAFEGUARDS WHICH NEED TO BE COMPLIED WITH BY THE PROJECT PROPONENT DURING OPERATION PHASE:**

**7.11 Water Requirement and Rain Water Harvesting:**

- (i) For meeting the total fresh water requirement for the project upto maximum 596KLD (Total water requirement -949KLD (approx.) i.e. first time before recycle) from ground water source, necessary prior permission has to be obtained from the Water Resources Department, Govt. of Odisha/ CGWB, failing which no ground water is allowed to be tapped. **The PP shall install tamper proof digital flow meter at all water drawal and intake points for the project.**
- (ii) The PP shall install one piezometer for ground water level monitoring and water level data shall be made available to CGWA through web portal as a part of six monthly compliance report. The PP shall comply with all conditions laid down in the NOC of CGWB.
- (iii) 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

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proponent. The record shall be submitted to the Integrated Regional Office, MoEF&CC and SEIAA, Odisha along with six monthly Monitoring reports.

- (iv) The PP shall comply with all conditions as specified by CGWB/ Water Resources Department, Govt. of Odisha for the project for abstraction of ground water.
- (v) 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.
- (vi) 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.
- (vii) 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.
- (viii) 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.
- (ix) The proponent shall keep one bore well as standby domestic water source once municipal water supply is made available in the project area.
- (x) A complete plan for rainwater harvesting at the proposed site shall be drawn up and implemented. The complete rainwater harvesting plan shall be submitted to SEIAA within one month from this day. As proposed, 10 nos. of rain water harvesting structures for artificial ground water recharge shall be installed as per CGWB guidelines.

**7.12 Solid Waste Management:**

- (i) The provisions of the Solid Waste (Management) Rules, 2016, E-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
- (ii) 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.
- (iii) 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 bio-degradable

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and inert materials. Bio-degradable waste 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 the project will be sent to dumping site.

- (iv) 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.
- (v) 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.

#### **7.13 Sewerage Treatment Plant:**

- (i) STP of 835 KLD capacity shall be installed before start of the operation phase of the building. Treatment of 100% grey water by decentralized treatment should be done. The treated waste water from STP shall be recycled / reused to the maximum extent possible. Flushing, washing, watering of the lawns and gardening, filter backwash, cleaning of the floors, etc. facilities are to be met by recycled water. Discharge of unused treated waste water shall conform to the norms and standards of the Odisha State Pollution Control Board. Necessary measures should be taken to mitigate the odour problem from STP. The sewage treatment plant shall be made functional before the completion of Building Complex. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- (ii) 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.
- (iii) 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.
- (iv) The wastewater generated shall not be allowed to mix with storm water. The Project Proponent shall ensure separate approved line for discharge of treated waste water and that of storm water. No sewage or untreated effluent water would be discharged through storm water drains.
- (v) Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public

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Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

- (vi) 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.

#### 7.14 Energy Conservation:

- (i) 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.
- (ii) 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.
- (iii) The proponent shall use renewable energy/ solar power of at least 5% of projected power requirement for the building premises.
- (iv) Solar energy shall be installed to meet electricity generation equivalent to 5% of the demand load/as proposed or as per the state level/ local building bye-laws requirement, whichever is higher & feasible. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.
- (v) 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.
- (vi) 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.

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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 27<sup>th</sup> August, 2003 and 25<sup>th</sup> January, 2016. Ready mixed concrete must be used in building construction.

- (vii) 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.

**7.15 Air Quality Management and Noise Management:**

- (i) 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.
- (ii) For indoor air quality the ventilation provisions as per National Building Code of India shall be provided.

**7.16 Greenbelt Development:**

- (i) Green-belt, lawn area & avenue plantation of trees over the area of 5074.98 sqm (21.8% of plot area) shall be done using native tree species/shrubs improving greenery & keeping in view aesthetics considerations in the whole complex. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Professional landscape architects should be engaged to design the green layout to provide for multi-tier plantation and green fencing all around, mitigating various environmental pollutants like dust, noise, emissions etc. A minimum of 1 tree for every 80 Sqmt of land should be planted and maintained.
- (ii) Rainwater from open spaces shall be collected and reused for landscaping and other purposes. Roof top rain water harvesting shall be adopted for the proposed Buildings. Rainwater harvesting at the proposed site shall be implemented. Before recharging the surface runoff, pre-treatment must be done to remove suspended matter, oil and grease.

**7.17 Parking, Traffic & Transportation:**

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

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- 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
- (ii) 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 01 km radius of the project is maintained and improved upon after the implementation of the project. 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 01 km radius of the site 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.
- (iii) 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.
- (iv) A dedicated entry/exit and parking shall be provided for commercial activities.
- (v) Barricades shall be provided around project boundary.
- (vi) 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.
- (vii) Parking shall be prohibited on the access road to the proposed project site.
- (viii) Parking in terms of ECS & space, both for 4 wheelers / 2 wheelers for the project shall be provided as per the norms considering the residents and visitors in the project.
- (ix) Footpath shall be seamless with sufficient width.
- (x) No vehicles shall be allowed to stop and stand in front of the gate on main access.
- (xi) A buffer of minimum 10 m shall be maintained between the entry/exit gate and the road to avoid traffic congestion.

**7.18 Environment Management Plan:** (i) The company shall have a well laid down environmental policy duly approve by the Board of Directors/project authority. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any

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infringements/deviation/violation of the environmental / forest /wildlife norms/ conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the Integrated Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha as a part of six-monthly report.

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

7.19 **Half-yearly Compliance Report:** (i) It shall be mandatory for the project management to submit six (06) monthly compliance reports on post environmental monitoring in respect of the stipulated terms and conditions in this Environmental Clearance to the State Environment Impact Assessment Authority (SEIAA), Odisha, SPCB & Integrated Regional Office of the Ministry of Environment & Forest, Odisha, the respective Zonal Office of CPCB and the SPCB in soft copies on 1<sup>st</sup> June and 1<sup>st</sup> December of each calendar year. No hard copy of six (06) monthly compliance reports shall be accepted by SEIAA. The proponent shall upload the compliance report including results of monitored data, as applicable in the PARIVESH website of the Ministry for monitoring of EC Conditions. 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

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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.

- (ii) Officials from the Integrated Regional Office of MoEF&CC, Bhubaneswar/SPCB, Odisha 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.
- (iii) 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 Integrated Regional Offices of MoEF&CC, Govt. of India by E-mail.

**E. MISCELLANEOUS ENVIRONMENTAL CONDITIONS WHICH NEED TO BE COMPLIED WITH BY THE PROJECT PROPONENT:**

**7.20 Other Conditions:**

- (i) The project proponent shall inform the Integrated Regional Office, MoEF&CC, Govt. of India, Bhubaneswar as well as SEIAA, Odisha the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of operation by the project.
  - (ii) No further expansion/revision or modifications in the project shall be carried out without prior approval of SEIAA, Odisha. In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by the SEIAA, Odisha.
  - (iii) 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. The company in a time bound manner shall implement these conditions.
- 8 All EC condition 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.

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- 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.

Yours faithfully,

  
Member Secretary

**Copy to:**

1. **Joint Secretary (IA Division)**, Ministry of Environment, Forests and Climate Change Govt. of India, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi-110003 for information.
2. **Additional Chief Secretary**, Forests & Environment Dept., Government of Odisha for information.
3. **Secretary**, SEAC, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar for information.
4. Guard file for record/Website/Parivesh Portal.

**Copy for information and necessary action:**

1. **Member Secretary**, State Pollution Control Board, Odisha, Paribesh Bhawan, A/118, Nilakantha Nagar, Unit-8, Bhubaneswar.
2. **Deputy D.G.Forest**, Integrated Regional Office (IRO), Ministry of Environment & Forests, A/3, Chandrasekharapur, Bhubaneswar.
3. **Regional Director**, CGWA, South Eastern Region, Bhujal Bhawan, Khandagiri, Bhubaneswar, Pin-751030.
4. **Vice Chairman**, BDA, Bhubaneswar Development Authority, Akash Shova Building, Sachivalay Marg, Bhubaneswar, Pin-751001.
5. **Executive Engineer**, Bhubaneswar Municipal Corporation, Janpath Road, Unit-9, Bhubaneswar, Pin-751022.
6. **Member Secretary**, OWSSB, Unnati Bhawan, 2<sup>nd</sup> floor, Satya Nagar, Bhubaneswar, Pin-751007.
7. **Engineer-in-Chief**, PHD, Unnati Bhawan, 1<sup>st</sup> floor, Satya Nagar, Bhubaneswar, Pin-751007.
8. **Collector, District Magistrate**, Khordha, District-Khordha.

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Member Secretary