

## **RESIDENTIAL APARTMENT PROJECT**

**KHATA NO.13/2, THANISANDRA WARD NO.6, THANISANDRA  
MAIN ROAD (COMPRISING OF OLD SY.NO.47 /L(P), 47 /2(P),  
48/L(P), 48/2(P),48/4, 48/5, 48/6(P), 48/7, 48/8(P),  
48/9, 49/2(P), 50/2(P), 51.(P), 52/1, 52/2,52/7, 52/8,  
53, 54/1, 54/2, 54/3, 54/4, 55/1, 55/2, 55/3, 55/4,  
55/5(P), 55/6(P), 55/7(P), 55/8, 55/9(P), 56/1, 56/2(P),  
56/3(P), 56/ 4(P), 58/2, 59/2, 60/1(P) OF BENGALURU  
EAST TALUK. BENGALURU**

**BY**

**G CROP HOMES PVT LTD**

**HALF YEARLY COMPLIANCE REPORT  
FOR A PERIOD OF OCTOBER 2023 TO MARCH 2024  
(FILE NO SEIAA 136 CON 2020)**

**ENVIRONMENT CONSULTANT: A K ENVIRO SERVICES**



**REGISTERED OFFICE: 7TH FLOOR, SKAV 909  
LAVELLE, LAVELLE ROAD, RICHMOND CIRCLE,  
BENGALURU - 560001**

## BACKGROUND AND INTRODUCTION

M/s G Crop Homes Pvt Ltd have got into a Joint Development Agreement with the landowner covering a land area of 80,025.91Sq.m located at BBMP Khatha No. 13/2, Thanisandra Ward No. 6, Thanisandra Main Road, comprises of (Old Sy. No. 47/I(P), 47/2(P), 48/I(P), 48/2(P), 48/4, 48/5, 48/6(P), 48/7, 48/8(P), 48/9, 49/2(P), 50/2(P), 5 I(P), 52/1, 52/2, 52/7, 52/8, 53, 54/1, 54/2, 54/3, 54/4, 55/1, 55/2, 55/3, 55/4, 55/5(P), 55/6(P), 55/7(P), 55/8, 55/9(P), 56/1, 56/2(P), 56/3(P), 56/4(P), 58/2, 59/2, 60/I(P) of Bengaluru East Taluk, Bengaluru.

M/s G Crop Homes Pvt Ltd proposes to develop the land parcel into best-in-class apartment complex with 1,544 flats and club house along with modern-day amenities, apart from Uninterrupted Power Supply through Generator sets, Children Play Area, beautiful landscape with adequate native plantations, recreation center, Efficient Security system, Rainwater harvesting facility, Sewage Treatment Plant, Organic Waste Converter and solar water heaters for flats on top two floors, etc.

### Environment Clearance

Also, Environment Clearance from SEIAA vide order No. SEIAA 135 CON 2010, dated 24-05-2011 3,61,786.9Sq.m with 1550 units, 21 Row Houses (Total 1,571 Dwelling Units) and Clubhouse.

M/s G Crop Homes Pvt obtained Extension of Validity of Environment Clearance from SEIAA vide Order No. SEIAA 135 CON 2010, dated 01.01.2018.

M/s G Crop Homes Pvt obtained Modification to the Environment Clearance from SEIAA vide order No. SEIAA 136 CON 2020, dated 01-10-2021 with Built-up area of 3,41,359.56Sq.m with 1,312 Flats and 16 Rowhouses (Total 1,328 dwelling units) and Clubhouse.

M/s G Crop Homes Pvt obtained Corrigendum to Environment Clearance by retaining the built-up area of 3,41,359.56 unchanged and increasing the number of dwelling units from 1328 to 1544 (Increase of 216 units) vide order No. SEIAA 136 CON 2020 dated 08.03.2023.

### Consent for Establishments

M/s G Crop Homes Pvt Ltd have obtained Consent for Establishment (CFE) from KSPCB initially for Built-up Area of 3,61,786.9Sq.m with 1550 units, 21 Row Houses (Total 1,571 Dwelling Units) and Clubhouse in 2011 vide Order No. CFE No. PCB/378/CNP/10/H.235 dated 30.05.2011.

M/s G Crop Homes Pvt Ltd Obtained Extension of Validity of CFE issued by KSPCB vide order No. PCB/378/CNP/10/351, dated 26-04-2016. The Validity extended upto 29.05.2018 through the above order.

M/s G Crop Homes Pvt Ltd Obtained Extension of Validity of CFE by KSPCB vide order No. PCB/378/CNP/10/4717, dated 20.11.2019. The Validity extended upto 28.05.2020. Copy of the extension of validity of CFE is enclosed as Annexure 3.

M/s G Crop Homes Pvt Ltd Obtained CFE – Modification for Built-up area of 3,41,359.56Sq.m, for 1,328 dwelling units, (1,312 Flats and 16 Rowhouses) and Clubhouse vide Order No. CTE-323571, PCB ID: 99918, dated 04.02.2021.

M/s G Crop Homes Pvt Ltd Obtained CFE – Modification again vide Order No. CTE – 337999, PCB ID: 99918, Inward Id: 192108, dated 6<sup>th</sup> June 2023 with Built-up area of 3,41,359.56Sq.m with 1,312 Flats and 16 Rowhouses (Total 1,328 dwelling units) and Clubhouse.

#### Consent for Operation

M/s G Crop Homes Pvt Ltd have also obtained partial Consent for Operation for Phase 1A comprising of 159 Dwelling units and a built-up area of 56,297.98Sq.m with STP of 45KLD and 50KLD (Total 95KLD) vide order No PCB/378/CNP/10/H 1192, dated 17.12.2015. The CFO is periodically renewed and presently is valid upto 30-09-2027 (Order No. W326762, PCB ID: 101625, dated 14.09.2021).

M/s G Crop Homes Pvt Ltd have also obtained partial Consent for Operation for Phase 1B of their project vide CFO Order No. PCB/378/CNP/10/H485, dated 18.09.2017 for 322 Dwelling units with Built-up area of 61,314.59Sq.m with 185KLD of Sewage Treatment Plant. CFO – Renewal has been obtained vide Order No. W – 334698 with PCB ID: 105902 and Inward ID 166896 dated 01.12.2022.

#### **About the Project in Brief**

The water demand of 1003KLD and electricity of 7000KVA is proposed to be sourced from Bengaluru Water Supply and Sewerage Board (BWSSB) and Bengaluru Electricity Supply Company Limited (BESCOM) respectively. The Wastewater (Sewage) generated from the project (about 902KLD) shall be treated in Sewage Treatment Plant of 1030KLD (Total Capacity) with Sequencing Batch Reactor Technology. The Municipal Solid Waste is proposed to be segregated at source into Organic, Recyclable and Reject. The Organic Waste of about 2084kg/day will be converted to compost within

the project premises. Recyclable waste of about 1,389kg/day shall be sold to local recyclers and the rejects will be handed over to authorized agencies for safe disposal.

The proposed 1,544 Dwelling units are well-spaced keeping the privacy of the unit intact, also ensuring adequate natural lighting and ventilation. All units open out onto the spread of gardens, letting natural light into units. Interior spaces are exquisitely planned with Contemporary and Modern finish.

The Clubhouse consist of a grand lobby and well-planned amenities such as, Indoor games room, AV room, Party Hall, Gym, Kids play area and Swimming pool looking out to the landscape below.

High standards of construction shall be adopted with locally sourced / available materials to reduce carbon footprint apart from using water and energy efficient fixtures / fittings.

Project has been designed considering the element of sustainability such as:

- Dual piping system
- Rainwater harvesting for conserving water.
- Rainwater Recharging systems to improve the water table.
- Sewage Treatment Plant to treat 100% of the wastewater (Sewage) generated from the project and make it fit for reuse for toilet flushing and landscaping.
- Solar lighting / heating

**Table: Salient Features of the Project:**

Sl. No.	Particulars	Description
1	Address	BBMP Khatha No. 13/2, Thanisandra Ward No. 6, Thanisandra Main Road, comprises of (Old Sy. No. 47/1(P), 47/2(P), 48/1(P), 48/2(P), 48/4, 48/5, 48/6(P), 48/7, 48/8(P), 48/9, 49/2(P), 50/2(P), 51(P), 52/1, 52/2, 52/7, 52/8, 53, 54/1, 54/2, 54/3, 54/4, 55/1, 55/2, 55/3, 55/4, 55/5(P), 55/6(P), 55/7(P), 55/8, 55/9(P), 56/1, 56/2(P), 56/3(P), 56/4(P), 58/2, 59/2, 60/1(P) of Bengaluru East Taluk, Bengaluru.
2	Total Plot Area	80,025.91Sq.m
3	Total Built up Area	3,41,359.56Sq.m

4	Landscape Area	24,095.93 Sq.m
5	No. of Flats	1,544 Dwelling Units
6	Activity	Residential Apartments and Club House
7	Project Cost	665 Crores
8	No. of Occupants	7,432 People
9	Parking Proposed	2,330 Car Parking Slots
10	Water requirement	1,003KLD
11	Sources of Water	BWSSB + Rooftop Rainwater + Treated Water
12	Total Wastewater Generation	902KLD
13	Wastewater Treatment Plant	1,030KLD (Total)
14	Use of Treated Water	Toilet Flushing, Landscaping, etc
15	Power Requirement	7,000KVA
16	Source of Power	BESCOM
17	Backup Power (DG Sets)	500KVA x 3 Nos + 250KVA x 1No. + 625KVA x 3Nos + 100KVA x 1No + 50KVA x 2Nos.
18	Fuel for Backup Power	PNG / HSD
19	Renewable Energy	Solar PV Panels for common area lighting and Solar Hot Water Heaters for apartments in top two floors of the building
20	Solid Waste Generation and Disposal	Total Solid Waste = 3,473kg/day (2,084kg/day of Organic Waste + 1,389Kg/day of Inorganic Waste)

Note: The construction of Phase 2 of the project is started in October 2023 after obtaining all required approvals and No Objection Certificates (NOCs) from the concerned statutory authorities.

Few photographs of the completed blocks for which CFO is obtained and are under operation are given below.



**Photos: Completed Blocks of the Project**



Photographs: Phase 2 Under Construction

## POINT-WISE COMPLIANCE REPORT

### I. Statutory compliance

1. 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.

**Condition Complied.** The construction of the project is taken up in 2 phases. Phase 1 of the project complete and required approves including Occupancy Certificate from Bruhat Bengaluru Mahanagara Palike, Fire Clearance Certificate from Karnataka State Fire and Emergency Services (KSFES) Department, Consent for Operation from Karnataka State Pollution Control Board (KSPCB), Water and Electricity connection from Bengaluru Water Supply and Sewerage Board (BWSSB) and Bangalore Electricity Supply Company (BESCOM) Limited are obtained before start of occupancy of the project. Further, all required

approvals for start of construction for Phase 2 of the project are also obtained and the construction is started from October 2023. The approval for construction of Phase 2 of the project includes Development Plan from Bengaluru Development Authority (BDA), Building Plan Sanction from BBMP, Consent for Establishment from KSPCB, Environment Clearance from State Environment Impact Assessment Authority (SEIAA), Karnataka, Fire NOC from KSFES, Water NOC from BWSSB, Electricity NOC from BESCO, Height NOC from Airport Authority of India, etc.

2. The approval of the Competent Authority shall be obtained for structural safety of the constructions due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightening etc.

**Condition Complied. The building structural design complies with relevant sections of National Building Code (NBC) 2016. The project site falls under Seismic Zone II and all required design criteria shall be incorporated to ensure structural safety of the construction due to earthquakes, etc. As indicated in Point 1, Fire NOC for Phase 2 and Fire Clearance Certificate for Phase 1 are already obtained from the KSFES Department. The lighting arrester is installed for Phase 1 of the project as per NBC 2016.**

3. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of diversion of forest land for non-forest purpose involved in the project.

**Condition Not Applicable. No Forest Area is involved in the project.**

4. The proponent shall obtain clearance from the National Board for Wildlife, if applicable.

**Condition Not Applicable.**

5. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.

**Condition Complied. Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 is obtained from the KSPCB.**



6. The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.

**Condition Not Applicable. The source of water for the project is BWSSB.**

7. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.

**Condition Complied. NOC from BESCO for supply of electricity is obtained for the project.**

8. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.

**Approval for storage of Diesel is not applicable for the project as the storage capacity of Diesel is within the threshold at which permission is not required. NOCs from Fire Department and Airport Authority of India (AAI) are obtained for the project.**

9. The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste Management Rules, 2016 shall be followed.

**Condition Complied. All the provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste Management Rules, 2016 are followed.**

10. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

**Condition Complied. ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power are strictly followed for the project.**

## **II. Air Quality Monitoring and Preservation**

1. 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.

**Condition Complied. Following measures were taken to reduce noise, air and water pollution:**

- Hi-tech and latest construction equipment's complying with latest emission norms were used.
- No construction activity was carried out during the nighttime.
- DG sets with Acoustic enclosures were used during construction period.
- Compound walls with required height were constructed along the boundary of the project site.
- Water was sprinkled on temporary internal roads and pathways at regular intervals to suppress dust emissions.
- Personal Protective Equipment's like Hard Hats, Safety goggles, ear plugs, masks, etc., were provided to construction labourers.
- Portable toilets and bathrooms were provided at site with adequate capacity of septic tank and soak pits.
- Low Sulphur High Speed Diesel with Sulphur content <10ppm was used for DG sets during construction period.
- Recyclable construction waste such as wood, metals, glass etc., was segregated and stored at designated area, and sold / disposed to recyclers etc.
- Ready Mix Concrete (RMC) mixed with curing agents, which aid in faster curing, were used to reduce water demand during construction.
- Curing activities were done during the early hours of the day and in the late evening to reduce water loss due to evaporation.

2. A management plan shall be drawn up and implemented to contain the current exceedance if any in ambient air quality at the site.

**The ambient Air quality is monitored regularly and is within the permissible norms. Required measures will be taken to keep the air quality at check and within the norms.**

3. The project proponent shall install system to carryout Ambient Air Quality monitoring for common / criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5) covering upwind and downwind directions during the construction period.

**Condition Complied. The ambient noise and air quality has been monitored by NABL accredited laboratories. The reports for Air, Noise, Water and Soil are enclosed as Annexure.**

**Monitoring was conducted in respect of the following parameters:**

- **Particulate Matter (PM<sub>10</sub>)**
- **Particulate Matter (PM<sub>2.5</sub>)**
- **Sulphur Dioxide (SO<sub>2</sub>)**
- **Oxides of Nitrogen (NO<sub>x</sub>)**

The duration of sampling of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and NO<sub>x</sub> was 24 hourly continuous sampling per day and CO was sampled for 8 hours continuous, thrice in 24 hour duration monitoring. The monitoring was conducted for one day at two locations.

The air samples were analyzed as per standard methods specified by Central Pollution Control Board (CPCB) and IS: 5182. The techniques used for ambient air quality monitoring and minimum detectable levels are given in below table.

Fine particulate sampler APM 550 instrument have been used for monitoring Particulate Matter (PM<sub>2.5</sub>) i.e. <2.5 micron Respirable Dust Samplers APM-451 instruments have been used for monitoring Particulate Matter (PM<sub>10</sub>), Respirable fraction (<10 microns) and gaseous pollutants like SO<sub>2</sub>, and NO<sub>x</sub>.

#### Techniques used for Ambient Air Quality Monitoring

Sl. No.	Parameter	Technique	Technical Protocol
1.	Particulate Matter (PM <sub>2.5</sub> )	Fine Particulate Sampler APM 550 (Gravimetric Method)	IS - 5182 (Part- IV)
2.	Respirable Particulate Matter (PM <sub>10</sub> )	Respirable Dust Sampler APM 550 (Gravimetric Method)	IS - 5182 (Part- 23)
3.	Sulphur Di-oxide	Modified West & Gaeke	IS - 5182 (Part- 2)
4.	Oxides of Nitrogen	Jacob & Hochheiser	IS - 5182(Part- 6)

4. Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided in consultation with State Pollution Control Board.

**Condition Complied.** The backup power DG Sets used are enclosed type silent DG Sets and confirm to the rules made under the Environment (Protection) Act 1986. The height of stack of DG Sets are as per prescribed norms.

5. 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.

**Condition Complied.** Site is barricaded all round the project site.



**Photographs: Site Barricades all around the Project Site**

6. Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.

**Condition Complied. Sand, murrum, loose soil, cement, stored on site are covered using tarpaulin sheets to prevent dust pollution.**



**Photographs: Loose Construction Materials is Covered using tarpaulin sheets**

7. Wet jet shall be provided for grinding and stone cutting.

**Condition Complied for Phase 1. Condition will be complied for Phase 2 of the construction activity too.**

8. Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.

**Condition Complied. Regular water sprinkling is carried out on unpaved surfaces to suppress dust emissions from the movement of construction vehicles within the project site.**



**Photographs: Water Sprinkling for Dust Suppression**



**Photographs: a., b., & d. Sprinkling System for Dust Suppression along the temporary Roads within the project site, c. Tyre Washing Bay**

9. 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.

**Condition Complied. Construction debris are segregated to recyclable and non-recyclable waste. The non-recyclable debris is used for leveling, backfilling, construction of internal roads and formation of basement floor within the project site. The recyclable debris is segregated according to its characteristics and sold to local authorized recyclers. Surplus debris shall be handed as per the provisions of the construction and Demolition Waste Rules 2016.**



**Photographs: a. & b. Construction Waste Segregation and Storage, Waste Barrels and Chemical Cans Storage Area and d. Storage of Aluminum Framework Structure.**

10. The diesel generator sets to be used during construction phase shall be low sulphur diesel type and shall conform to standards prescribed under Environmental (Protection) Rules for air and noise emission standards.

**Condition Complied. The DG set used during construction phase are low Sulphur Diesel type and comply with the standards prescribed under Environmental (Protection) Rules for air and noise emission.**



**Photograph: Enclosed Type Silent DG Set**

11. 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.

**Condition Complied. DG Sets are Enclosed type and the stack height is as per norms to mitigate the Air and Noise pollution. Low Sulphur diesel with Sulphur content of <10ppm is used.**

### **III. Water Quality Monitoring and Preservation**

1. 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 rainwater.

**Condition is being complied. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are Proposed**



2. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.

**Condition Complied. The natural topography of the project site is made use to reduce cut and fill in the project construction. The natural topography of the project site is maintained to ensure free flow of rainwater runoff from the project and near surroundings.**

3. Total freshwater use shall not exceed the proposed requirement as provided in project details.

**Condition Complied. The total freshwater demand shall not exceed the proposed requirement submitted in our application for Environment Clearance.**

4. The quantity of freshwater 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 along with six monthly Monitoring reports.

**Condition will be complied.**

5. A certificate shall be obtained from local body supplying water, specifying the total annual water availability with 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 the other users.

**Condition Complied. The source of water for the project is BWSSB. Water NOC from BWSSB is obtained for the project.**

6. At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.

**Condition being complied**

7. 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.

**Condition complied for completed buildings of the project. Dual plumbing systems to reuse treated water from STP for toilet flushing, landscaping, etc. are installed. The same system is proposed for Phase 2 of the Project.**

8. 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 project area.

**Condition Complied. Water fixtures are low flow type for water conservation.**

9. 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.

**Condition Complied. Dual Plumbing system for separation of Grey and Black Water is provided.**

10. The project proponent shall identify a suitable source of treated water for construction and submit an MOU/Agreement with such suppliers. If so the supplier identified shall be responsible for treatment of water with appropriate technology to the standards required for construction purpose.

**Condition Complied. The source of water for construction purposes is from the existing STPs from within the project campus and from the STP installed at the Labour Camp.**

11. The local bye-law provisions on rainwater 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.

**Condition Complied for Phase 1. Adequate Rainwater Harvesting systems are provided for Phase 1 of the project and shall be implemented for Phase 2 too.**

12. A rainwater harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built-up area and storage capacity of minimum one day of total freshwater requirement shall be provided. In areas where ground water recharge is not feasible, the rainwater should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.

**Condition Complied.**

13. All recharge should be limited to shallow aquifer.

**Condition Complied.**

14. No ground water shall be used during construction phase of the project.

**Condition Complied.**

15. 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.

**Condition Not Applicable.**

16. The quantity of freshwater usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.

**Condition being complied**

17. Sewage shall be treated in the STP based on MBBR/SBR Technology with tertiary treatment i.e. Ultra Filtration. The treated effluent from STP shall be recycled/re-used for flushing, landscaping and HVAC cooling. No treated water shall be discharged to municipal drain.

**Condition Complied. SBR treatment technology is used to treat the sewage generated from the Project. The treated water from STP is used for Landscaping, Toilet Flushing, etc. within the project site.**



Photographs: STP at Project Site



**Photographs: STP at Project Site**

18. No sewage or untreated effluent water would be discharged through storm water drains.

**Condition Complied**

19. The existing water body, canals and rajakaluve and other drainage and water bound structures shall be retained unaltered with due buffer zone as applicable and maintained under tree cover.

**Condition Complied**

20. Onsite sewage treatment of capacity of treating 100% wastewater to be installed. 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 Ministry before the project is commissioned for operation. Treated wastewater shall be reused on site for landscape flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change Natural treatment systems shall be promoted.

**Condition Complied**

21. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.

**Condition Complied. The treated water is regularly analyzed and is within CPCB norms. There are no odour problems with the operations of the STP.**

22. 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.

**Condition Complied. Sludge is dewatered and the dried sludge cakes are used as manure for Landscaping within project site.**

**IV. Noise Monitoring and Prevention**

1. Ambient noise levels shall conform to residential area 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.

**Condition Complied**

2. Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.

**Condition Complied. Noise levels are monitored regularly and the results are enclosed as annexure for your kind perusal.**

3. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

**Condition Complied**

4. The project proponent shall ensure the time specification prescribed by the Honourable High Court of Karnataka in WP. No. 1958/2011 (LB – RES - PIL) on 04.12.2012 for different activities involved in construction work

**Condition being complied with.**

#### **V. Energy Conservation Measures**

1. 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.

**Condition Complied**

2. Outdoor and common area lighting shall be LED.

**Condition Complied**

3. 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.

**Condition Complied.**

4. Energy conservation measures like installation of 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.

**Condition Complied**

5. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building bye-laws requirement, whichever is higher.

**Condition Complied.**

6. 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.

**Condition Complied.**

## **VI. Waste Management**

1. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.

**Condition Complied**

2. Disposal of muck during construction phase shall not create any adverse effect on the neighboring 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.

**Condition Complied. Construction debris are segregated to recyclable and non-recyclable waste. The non-recyclable debris is used for leveling, backfilling, construction of internal road and formation of basement floor within the project site. The recyclable debris is segregated according to its characteristics and sold to local authorized recyclers.**

3. Separate wet and dry bins must be provided and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.

**Condition Complied**

4. Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.

**Condition Complied.**





**Photographs: Solid Waste Management Facility at Project Site**

5. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.

**Condition is being complied with.**

6. 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.

**Condition Complied.**

7. 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.

**Condition Complied. Cement containing Fly ash was used in Ready Mix Concrete. Ground Granulated blast-furnace slag (GGBS) was also used as recycled content in RMC.**

8. Fly ash should be used as construction material 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 construction.

**Condition Complied**

9. Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.

**Condition Complied. Construction debris are segregated to recyclable and non-recyclable waste. The non-recyclable debris is used for leveling, backfilling, construction of internal roads and formation of basement floor within the project site. The recyclable debris is segregated according to its characteristics and sold to local authorized recyclers.**

10. Used CFLs/TFLs/LED should be properly collected and disposed off/sent for recycling as per the prevailing guidelines / rules of the regulatory authority to avoid mercury contamination.

**Condition Complied.**

## **VII. Greenbelt**

1. No tree cutting/transplantation should be carried out unless exigencies demand. Where absolutely necessary, tree transplantation shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).

**Condition Complied**

2. A minimum of 1 tree for every 80 Sqm 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.

**Condition Complied**

3. Where the trees need to be cut with prior permission from the concerned local Authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted).

**Condition Complied**

4. 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.

**Condition Complied**



**Photographs: Landscape / Greenbelt at Project Site**



**Photographs: Landscape / Greenbelt at Project Site**

### **VIII. Transport**

1. A comprehensive mobility plan, as per MoUD 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.
  - a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
  - b. Traffic calming measures.
  - c. Proper design of entry and exit points.
  - d. Parking norms as per local regulation.

#### **Condition Complied**

2. 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 nonpeak hours.

#### **Condition Complied**

3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of roads within a 5 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 5 km 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.

**Condition Complied. Traffic Management Plan submitted along with Environment Clearance Application.**

4. Provide at the main entrance bell gates, which are located atleast 12' inside the boundary of the project to enable smooth flow of traffic on the main road leading to the entrance.

**Condition Complied.**



**Photographs: Entry / Exit of Project Site**

#### **IX. Human Health Environment**

1. 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.

**Condition Complied**

- All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase. Sufficient number of toilets/bathrooms shall be provided with required mobile toilets, mobile STP for construction workforce

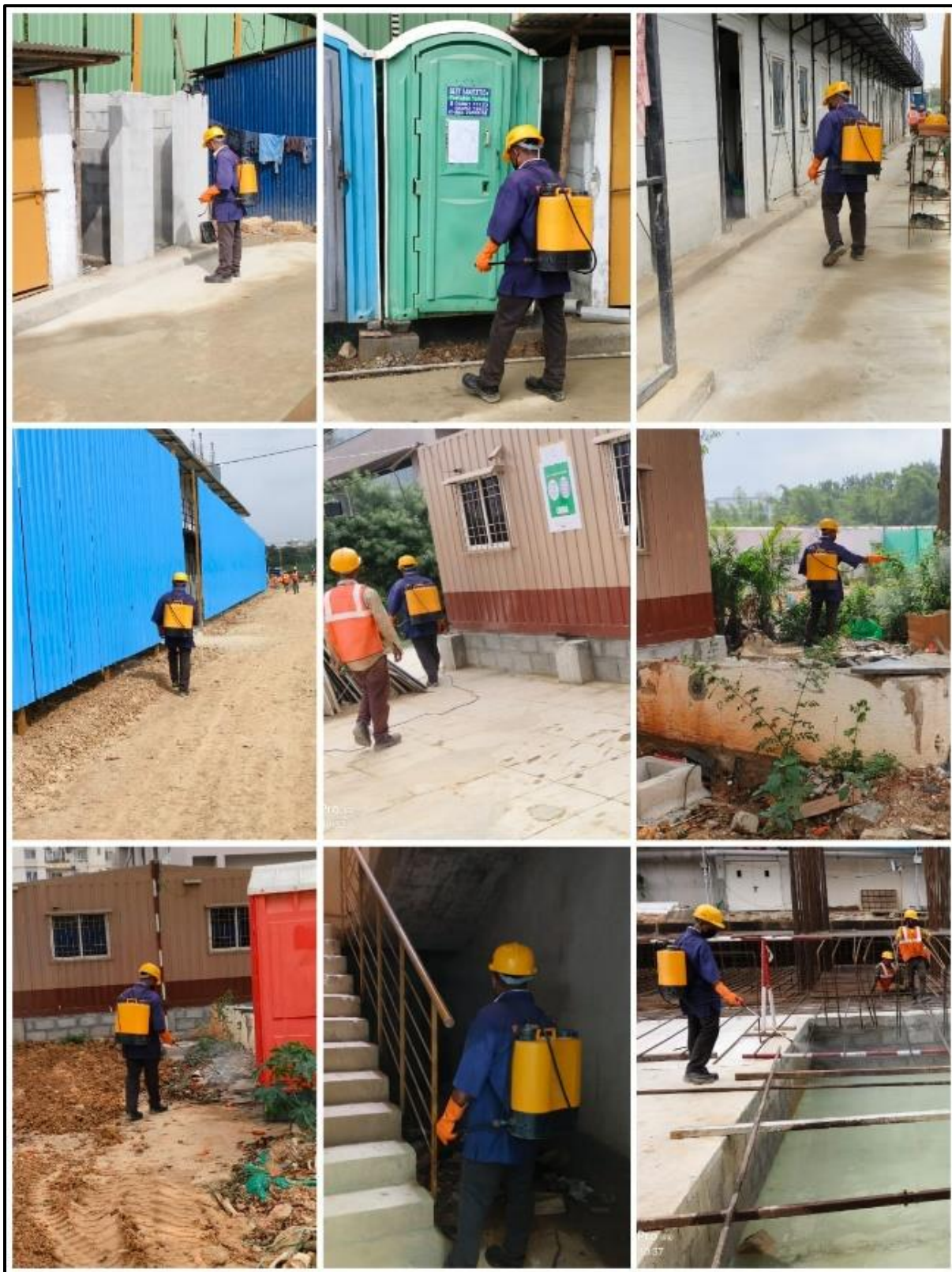
**Condition Complied.**



**Photographs: Labour Colony at Project Site**



**Photographs: Drinking Water Facility at Project Site and Labour Colony**



Photographs: Pest Control Activity at Project Site

- For indoor air quality the ventilation provisions as per National Building Code of India.

**Condition Complied.**

- Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.

**Condition Complied. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan is implemented.**

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

**Condition Complied.**

- Occupational health surveillance of the workers shall be done on a regular basis.

**Condition Complied**



**Photographs: Safety Meeting and Medical Examination Camp at Project Site**



7. A First Aid Room shall be provided in the project both during construction and operations of the project.

**Condition Complied**



**Photographs: First Aid and Medical Room at Project Site**



**Photographs: Emergency Vehicle at Project Site**

**X. Corporate Environmental Responsibility**

1. The project proponent shall comply with provision contained in OM vide F.No. 22-65/2017-IA.III dated 20th October 2020, of the Ministry of Environment, Forest and Climate Change as applicable, regarding Corporate Environment Responsibility and shall execute the action plan with a total cost of minimum of Rs. 87.5 Lakhs for Rain Water Harvesting, Development of Infrastructure, Solar Panels Provision, Health care, Drinking Water and Sanitation facility and Avenue Plantation at Thanisandra Govt Hospital, Govt Lower Primary School Horamavu Agara, as submitted vide letter dated 28.09.2021.

**Condition Complied**

2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements / deviation / violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or stakeholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of six-monthly report.

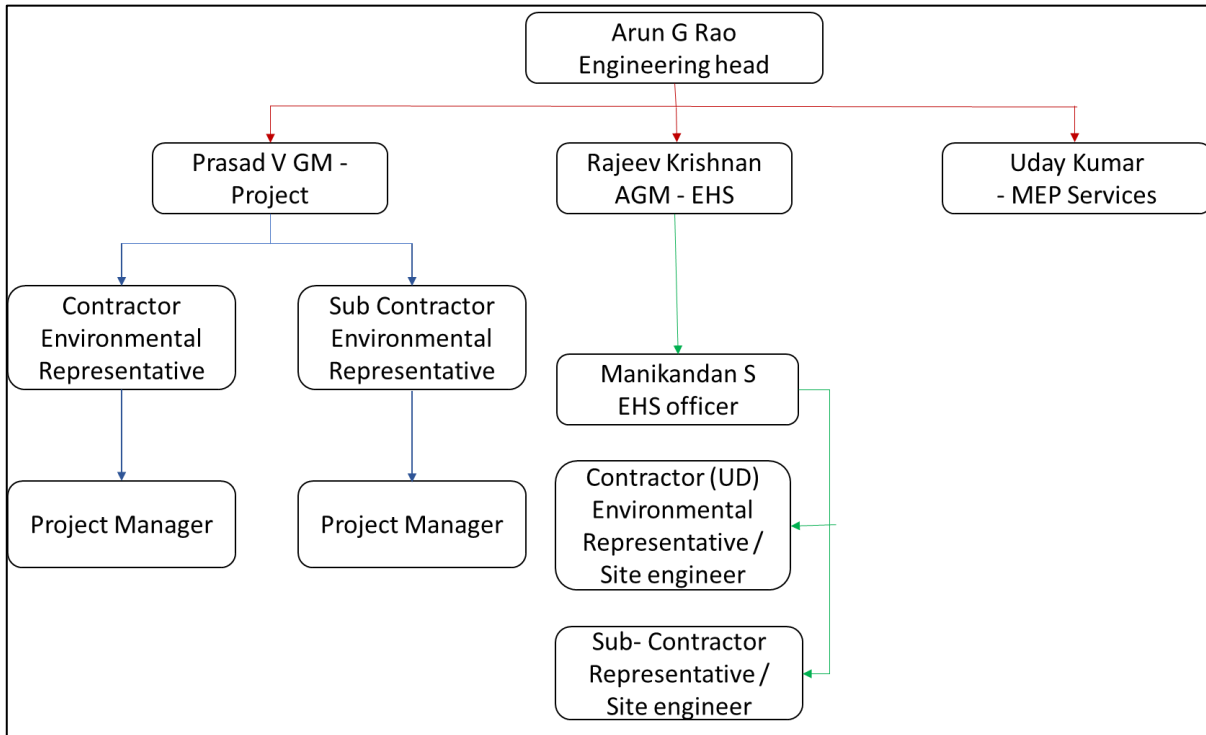
**Condition Complied. The company is a ISO 45001 Certified. They have a well laid down environmental policy duly approved by the Board of Directors.**

3. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization. The project proponent enter into an agreement with the prospective buyers/ tenants to ensure that they maintain the cell and take care of all environment concerns during the operation phase of the project. In addition, sufficient fees should be levied so as to raise a corpus fund to maintain the Environment cell.

**Condition Complied. Environmental cell for construction phase is in place to manage / maintain the environmental aspects. The Environmental Cell is co-headed by the project head and an experienced Environmental Engineer.**

**The main objective of the Environmental Cell is to diligently implement the conditions stipulated in the Environmental Clearance and Consent for Establishment. The conditions are also discussed with the project contractors to ensure its strict implementation throughout the project.**

Critical environmental issues like drinking & sanitary facilities for the labourers at labour camp & site, monitoring of ambient air, noise, water & soil with respect to CPCB standards, health check-up for the labourers, analysis of fire & safety mock drill conducted etc., are discussed in the Environmental Cell meeting and ensured that they are complying to all applicable norms.



**Fig: Flow Chart of Environment Cell**

4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry of Environment, Forest and Climate Change/Regional Office along with the Six Monthly Compliance Report.

**Condition Complied**

**XI. Miscellaneous**

1. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating

that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.

**Condition Complied**

2. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.

**Condition Complied. The Environment Clearance is uploaded on RERA, Karnataka website.**

3. The Project Proponent shall obtain the construction material such as stones and aggregates etc. only from the approved quarries and other construction material shall also be procured from the authorized agencies/traders.

**Condition Complied. Gravel / aggregate and Sand is procured from approved quarries.**

4. The project proponent shall not use Kharab land if any for any purpose and keep available to the general public duly displaying a board as public property. No structure of any kind be put up in the Kharab land and shall be afforested and maintained as green belt only.

**Condition Complied. The Kharab area is barricaded and not used for any purposes.**

5. The Project proponent shall build in infrastructure required for use of Piped Natural Gas (PNG) such as pipelines and space for installation of PNG distribution equipment for both domestic/commercial purpose and DG set and shall ensure that PNG is supplied for both commercial and for DG sets instead of other type of fuels.

**Condition Complied. PNG line is not available in the project vicinity. LPG Gas Bank is provided to residents in their kitchens.**



**Photographs: LPG Gas Bank for Phase 1 of the Project**

6. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.

**Condition Complied**

7. The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal.

**Condition Complied**

8. The Half Yearly Compliance Reports (HYCRs) with its contents of a covering letter, compliance reports, and environmental monitoring data has to be in PDF format merged into a single document. The email should clearly mention the name of project, EC No & date, period of submission and to be sent to the Regional Office of MOEF&CC by email only at email ID [rosz.bng-mefcc@gov.in](mailto:rosz.bng-mefcc@gov.in) Hard copy of HYCRs shall not be acceptable.

**Condition Complied**

9. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.

**Condition will be complied with**

10. The project proponent shall inform the Regional Office as well as the Ministry of Environment, Forest and Climate Change, the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.

**Conditions will be complied with**

11. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

**Conditions are being complied with**

12. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during their presentation to the Expert Appraisal Committee.

**Conditions are being complied with**

13. No further expansion or modifications in the plan shall be carried out without prior Environmental Clearance from the competent authority.

**Condition Complied.**

14. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.

**Only factual information is being submitted**

15. The State Level Environment Impact Assessment Authority, Karnataka may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

**Condition accepted**

16.The SEIAA, Karnataka reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.

**Condition accepted**

17.The Regional Office of MoEF&CC shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.

**Condition accepted**

18.The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

**Condition accepted**

19.Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

**No Appeal**

## **XII. Additional Condition**

1. Assured water supply, commensurate with the ultimate occupancy envisaged in the project. shall be ensured before commencement of the project

**Condition Complied**