



State Level Environment Impact Assessment Authority-Karnataka

(Constituted by MoEF, Government of India, under section 3(3) of E(P) Act, 1986)

No. SEIAA 159 CON 2018

Date: 11-10-2019

To,

Ramesh P.
Managing Partner
M/s. Ecolife Developers
Sy No. 30, Balagere Village,
Varthur Hobli, Bangalore - 560 087,

Sir,

Sub: Proposed Development of Residential Apartment Project at
Sy. Nos. 17/3, 18/2, 19, 20, 21/3, 22 & 23 of Balagere Village,
Varthur Hobli, Bengaluru East Taluk, Bengaluru by M/s. Ecolife
Developers - Issue of Environmental Clearance - Reg.

This has reference to your online application dated 18th May 2019 bearing proposal No. SIA/KA/NCP/36428/2019 addressed to SEIAA, Karnataka and subsequent letters addressed to SEIAA/SEAC Karnataka furnishing further information/seeking prior Environmental Clearance for the above project under the EIA Notification, 2006. The proposal has been appraised as per the prescribed procedure in light of the provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., the Form 1, Form 1A, conceptual plans and the additional clarifications furnished in response to the observations of the SEAC, Karnataka. SEAC has recommended for issue of Environmental Clearance in their meeting held on 26th August 2019.

2. It is, inter-alia, noted that M/s. Ecolife Developers have proposed for Development of Residential Apartment Building Project on a plot area of 22,535.74 Sqm. The total built up area is 65,516.37 Sqm. The proposed project comprising of Basement + Ground floor + 14 Upper floors with total of 390 units. Total parking space proposed is for 430 No's of Cars. Total water consumption is 263 KLD (Fresh water + Recycled water). The total wastewater discharge is 224 KLD. It is proposed to construct Sewage Treatment Plant with a capacity of 230 KLD. The project shall have DG sets of 500 KVA x 1 No and 380 KVA x 1 No as alternative source of power supply. The project cost is Rs. 50 Crores.

3. The SEIAA Karnataka after due consideration of the relevant documents submitted by the project proponent, additional clarifications furnished in response to its observations and the recommendation of the SEAC have in their meeting held on 27th September 2019 and decided to accord Environmental Clearance in accordance with the provisions of Environmental Impact Assessment Notification-2006 and its



subsequent amendments, subject to strict compliance of the following terms and conditions: -

I. Statutory Compliance.

- i) 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.
- ii) 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.
- iii) 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.
- iv) The proponent shall obtain clearance from the National Board for Wildlife, if applicable.
- v) 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.
- vi) The project proponent shall obtain the necessary permission for drawl of ground water / surface water required for the project from the competent authority.
- vii) 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.
- viii) 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.
- ix) The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste Management Rules, 2016 shall be followed.
- x) The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

II. Air quality monitoring and preservation

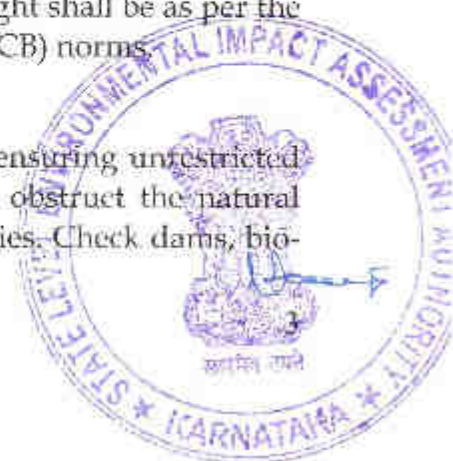
- i) Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.



- ii) A management plan shall be drawn up and implemented to contain the current exceedance if any in ambient air quality at the site.
- iii) 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 PM_{2.5}) covering upwind and downwind directions during the construction period.
- iv) 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 with in consultation with State Pollution Control Board.
- v) 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.
- vi) Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
- vii) Wet jet shall be provided for grinding and stone cutting.
- viii) Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
- ix) 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.
- x) 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.
- xi) 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.

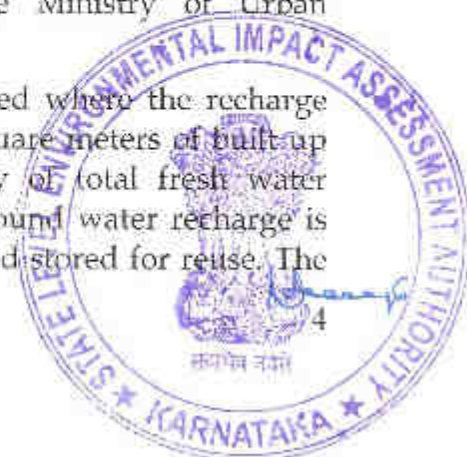
III. Water quality monitoring and preservation

- 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, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rain water.

- ii) Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
- iii) Total fresh water use shall not exceed the proposed requirement as provided in project details.
- iv) The quantity of fresh water usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with six monthly Monitoring reports.
- v) 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.
- vi) 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.
- vii) 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.
- viii) 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.
- ix) 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.
- x) 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.
- xi) The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016.
- xii) A rain water 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 fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse. The



ground water shall not be withdrawn without approval from the Competent Authority.

- xiii) All recharge should be limited to shallow aquifer.
- xiv) No ground water shall be used during construction phase of the project.
- xv) 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.
- xvi) The quantity of fresh water 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.
- xvii) 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.
- xviii) No sewage or untreated effluent water would be discharged through storm water drains.
- xix) 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.
- xx) Onsite sewage treatment of capacity of treating 100% waste water 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 waste water 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.
- xxi) Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
- xxii) 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.

IV. Noise monitoring and prevention

- i) 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.

- ii) 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.
- iii) 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.
- iv) 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

V. Energy Conservation measures

- 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.
- ii) Outdoor and common area lighting shall be LED.
- iii) 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.
- iv) 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.
- v) 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.
- vi) 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.

VI. Waste Management

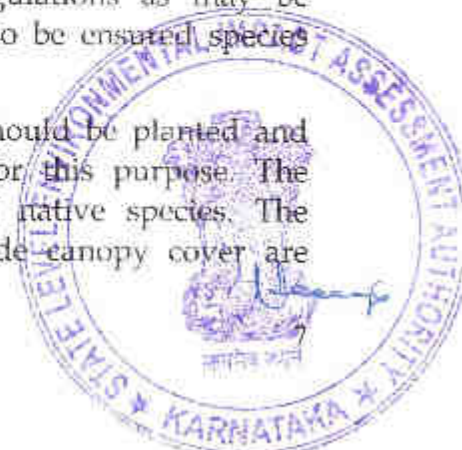
- i) A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.



- ii) 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.
- iii) 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.
- iv) Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
- v) All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
- vi) 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.
- vii) 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.
- viii) 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.
- ix) 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.
- x) 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.

VII. Green Cover

- i) 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).
- ii) 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.

- iii) 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).
- iv) 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.

VIII. Transport

- i) 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.
- ii) 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.
- iii) 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.
- iv) Provide at the main entrances bell gates, which are located at least 12' inside the boundary of the project to enable smooth flow of traffic on the main road leading to the entrance



IX. Human health issues

- i) 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.
- ii) 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
- iii) For indoor air quality the ventilation provisions as per National Building Code of India,
- iv) Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
- v) 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.
- vi) Occupational health surveillance of the workers shall be done on a regular basis.
- vii) A First Aid Room shall be provided in the project both during construction and operations of the project.

X. Corporate Environment Responsibility

- i) The project proponent shall comply with provision contained in OM vide F.No. 22-65/2017-IA.III dated 1st May 2018, 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. 1.0 Crores as submitted vide letter dated on 10/10/2019, around the project site.
- ii) The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or 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.
- iii) A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization. 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.

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

XI. Miscellaneous

- i) 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.
- ii) The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
- iii) The Project Proponent shall 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.
- iv) 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.
- v) 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.
- vi) 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.
- vii) 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.

- viii) 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.
- ix) 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.
- x) The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
- xi) 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.
- xii) No further expansion or modifications in the plan shall be carried out without prior Environmental Clearance from the competent authority.
- xiii) 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.
- xiv) 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.
- xv) The SEIAA, Karnataka reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
- xvi) 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.
- xvii) 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.
- xviii) 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.



- xix) Copies of six monthly compliance on the conditions of the Environmental Clearance shall be submitted to SEIAA, Karnataka.

XII. Specific Conditions

- i) The proponent to conduct energy audit by an accredited agency before operation of the project in accordance with the Bureau of Energy Efficiency.
- ii) 15% of parking space shall be reserved for electric vehicles with recharging facility.



Yours faithfully,


(Vijayakumar Gogi)
Member Secretary,
SEIAA, Karnataka.

Copy to:

1. The Secretary, Ministry of Environment, Forests and Climate Change, Indira Paryavaran Bhavan, Jor Bagh Road, Aliganj, New Delhi - 110 003.
2. The Commissioner, Bruhat Bengaluru Mahanagara Palike (BBMP), N.R. Square, Bangalore - 560 002.
3. The Member Secretary, Karnataka State Pollution Control Board, Bengaluru.
4. The APCCF, Regional Office, Ministry of Environment & Forests (SZ), Kendriya Sadan, IV Floor, E & F wings, 17th Main Road, Koramangala II Block, Bengaluru - 560 034.
5. Guard File.