



Validity expires on **5-9-2023**

***Proceedings of the State Environment Impact Assessment Authority Kerala***

*Present: Prof. (Dr.) K.P. Joy, Chairman; Dr. J. Subhashini, Member and  
Sri. V. S. Senthil, I.A.S., Member Secretary.*

Sub: SEIAA- Environmental clearance for proposed expansion of existing Residential Complex ("Kent Palm Grove") project in Sy.Nos. 221/3& 224/1 at Poonithura Village, Cochin Corporation, Kanayannur Taluk, Ernakulam District, by Sri.K. C. Raju, Managing Director, M/s Kent Constructions Pvt. Ltd. - EC granted

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**STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY**

**No. 939/SEIAA/EC3/4097/2015**

***Dated, Thiruvananthapuram 06-10-2016***

- Ref :
1. Application dated 06-10-2015 from Sri. K.C. Raju. Managing Director, M/s Kent Constructions Pvt. Ltd., Door No. 63/3441-A166, Kent Hail Garden, 1<sup>st</sup> Floor, Stadium Link Road, Near Jawaharlal Nehru International Stadium, Palarivattom P.O., Cochin -682025
  3. Minutes of the 58<sup>th</sup> Meeting of SEAC held on 28<sup>th</sup> & 29<sup>th</sup> June 2016.
  4. Minutes of the 57<sup>th</sup> Meeting of SEIAA held on 26<sup>th</sup> August 2016

**Environmental Clearance No 160/B/2016**

Sri. K.C. Raju. Managing Director, M/s Kent Constructions Pvt. Ltd., Door No. 63/3441-A166, Kent Hail Garden, 1<sup>st</sup> Floor, Stadium Link Road, Near Jawaharlal Nehru International Stadium, Palarivattom P.O., Cochin -682025, vide his application received on 06/10/2015 and has sought environmental clearance under the EIA Notification, 2006 for the proposed Expansion of existing Residential Complex ("Kent Palm Grove") Project in Sy. Nos. 221/3, 224/1 at Poonithura Village, Cochin Corporation, Kanayannur Taluk, Ernakulam District, Kerala. It is inter alia, noted that the project comes under the Category B, 8(a) of Schedule of EIA Notification 2006.

The total plot area of the proposed project is 0.7832 ha. (7,832.32 sq.m.) and total existing built-up area about 12,818.93 sq.m and the proposed built-up area is **18,160.62 sq.m.** The height of the proposed building is 57.60 m. The proposed parking facility is 213 cars and 266 two wheelers. The total domestic water requirement of about 126 KLD/day (which includes 83 KLD of fresh water requirements). The total power requirement is 400 kW which will be sourced through Kerala State Electricity Board and D. G. Sets (Capacity is 160 kVA x

1 no.). The project area and its surroundings falls under Zone III, according to the Indian Standards Seismic Zoning map. No forest land is involved in the present project. The proponent submitted Form I, Form I-A and Conceptual Plan of the project, including Environment Management Plan (EMP) and Corporate Social Responsibility (CSR). Total project cost is Rs. 22.4985 Crores. Other details of the project are as under:

Name of project	Environmental Clearance for Proposed Expansion of Existing Residential Complex Project ("Kent Palm Grove") by M/s Kent Constructions (P) Ltd.	
Brief description of the project	Proposed expansion of existing Residential project with total plot area about 0.7832 ha. (7,832.32 sq. m.) and total built-up area about 30,979.55 sq. m. (Existing built-up area - 12,818.93 sq.m. + Proposed built-up area - 18,160.62 sq.m.)	
Category/Subcategory & Schedule	Category 'B', Schedule 8 (a)	
Location Sy no/ district, Taluk/ village etc.	Stadium Link Road, Kaloor in Survey No. 221/3, 224/1 of Poonithura Village, Cochin Corporation, Kanayannur Taluk, Ernakulam District, Kerala	
GPS co-ordinates	Latitude (N)	9°59'22.45" to 9°59'20.43"
	Longitude (E)	76°18'14.82" to 76°18'09.92"
Built up area (in m <sup>2</sup> )	After the proposed expansion, total built-up area about 30,979.55 sq. m. (Existing built-up area - 12,818.93 sq.m. + Proposed built-up area - 18,160.62 sq.m.)	
No. of floors	Gr. + 16 floors	
Maximum height from ground level	57.60 m.	
Facilities proposed	After the proposed expansion total 180 apartments with supporting infrastructure facilities	
Details of project cost	About Rs. 22.4985 Crores	
Financial statement including funding source and details of insurance	Source :- Own source & bank loan	
Activity schedule of the project	About 12 months	
EnvmtMgmt plan/ Eco restoration plan (brief details)	<b>MANAGEMENT PLAN:</b>	
	<b>Air pollution</b>	Provision will be made for D.G. sets with noise control measures and stack for flue gas.
	<b>Water pollution</b>	Provision of STP for treatment of sewage and it's partially recycling for meeting the water requirement for flushing & horticulture water requirement within the site.
	<b>Noise</b>	Provision will be made for D.G. sets with noise control measures.
	<b>Solid Waste Management</b>	Provision of bio-bin system within the project site for disposal of the bio-degradable solid waste.
	<b>Eco restoration</b>	As part of the eco restoration, large number of saplings of native species would be planted.
<b>ABOUT THE PROJECT</b>		
Environmental parameters considered	Description	
<b>WATER</b>		

Water requirement & sources	The total domestic water requirement of about 126 KLD (which includes daily fresh water requirement of about 83 KL). Treated water from STP to be used for flushing of toilets (about 43 KLD) and horticulture requirement (about 5 KLD). Source :- Stored Rain water (tanks), Wells, KWA water supply and treated water from STP.
RWH units proposed	The project has provision for rain water storage tanks which will be used as source of water during rainy days & non-rainy days.
Facilities for liquid waste treatment	Sewage Treatment Plant for domestic sewage.
Water quality meeting requirements	Water quality to meets requirements as per rules after the treatment of water (filtration & disinfection).
Does it have provisions for use of recycled water	Treated water from STP to be used for flushing & horticulture purposes within the site.
<b>LAND</b>	
Proximity to forest lands	None within the study area as stated by proponent
Access road to the site – Width & Condition	The access to the project site is from 20 m. wide Stadium Link Road and another access is from 11 m. wide Pipeline Road.
Storage of explosives /hazardous substances	All precautionary measures in the storage & handling of HSD will be followed.
Facility for solid waste mgmt	<ul style="list-style-type: none"> <li>➤ Collection &amp; segregation within the site (bio-degradable waste (green bins) &amp; non-biodegradable waste (blue bins).</li> <li>➤ The recyclable waste like packaging material, paper etc. would be sold through vendors.</li> <li>➤ Bio-degradable waste would be disposed through the bio-bin system within the site.</li> </ul>
Topographic features/ slope	There are some of native species of trees and different varieties of shrubs, herbs, grass & climbers at site. For the development of the proposed project, existing trees, different varieties of shrubs, herbs, grass & climbers will be cleared. Also there is old house /structures which also to be demolished. The slope is towards west side.
<b>AIR</b>	
Air quality meeting requirements	To comply with the requirements as per rules.
Noise level meeting requirements	To comply with the requirements as per rules.
Likely emissions affecting environment	Emissions from D.G. sets and from the vehicles only.
<b>ENERGY</b>	
Energy requirement	400 kW
Energy sources	KSEB & D. G. Sets (existing 160 kVA x 1 no. as back-up)
Extent of usage of alternative energy resources	Solar water heating system for the hot water generation and solar power operated street lights will be provided.
<b>BIODIVERSITY</b>	
Presence of any endangered species or red listed category	Nil as stated by proponent.
Loss of native species and genetic diversity	There are some native tree species and different varieties of shrubs, herbs, grass, climbers existing at site. For the development of the proposed project, most of the existing species are cleared. It should be re-vegetated properly.
Likely displacement of fauna	Nil as stated by proponent

Any introduction of alien / invasive species	Nil as stated by proponent												
<b>SOCIAL ASPECTS</b>													
Proximity to nearest habitation	The project site is in Poonithura Village which is within the Cochin Corporation limits and several houses / buildings located within the 500 m. radius.												
CSR related to the project/ allocation/ time frame (details mandatory)	<b>Proposed common CSR Budget</b>												
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;">SLN o.</th> <th style="text-align: center;">Particulars</th> <th style="text-align: center;">Amount Rs. In lakhs</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1.</td> <td>Construction of toilets nearby Govt. school.</td> <td rowspan="4" style="vertical-align: top;">The project proponent has earmarked an amount of Rs. 10 Lakhs (Non-recurring) and Rs.15 Lakhs annually (Recurring) for implementing the activities under Corporate Social Responsibility.</td> </tr> <tr> <td style="text-align: center;">2.</td> <td>Health check camps in collaboration with Rotary club.</td> </tr> <tr> <td style="text-align: center;">3.</td> <td>Participating in the social forestry activities of the Municipality.</td> </tr> <tr> <td style="text-align: center;">4.</td> <td>Providing food and medical aid to the poor patients in the Govt. hospital.</td> </tr> </tbody> </table>	SLN o.	Particulars	Amount Rs. In lakhs	1.	Construction of toilets nearby Govt. school.	The project proponent has earmarked an amount of Rs. 10 Lakhs (Non-recurring) and Rs.15 Lakhs annually (Recurring) for implementing the activities under Corporate Social Responsibility.	2.	Health check camps in collaboration with Rotary club.	3.	Participating in the social forestry activities of the Municipality.	4.	Providing food and medical aid to the poor patients in the Govt. hospital.
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<b>GENERAL</b>													
Does it have eco restoration programmes	Provision for the green area development which includes native species such as medicinal trees, flowering trees, deciduous & evergreen trees, fruit trees, medicinal trees, shrubs & grass coverage.												
Sufficiency of parking spaces/ traffic management	213 Cars + 266 Two wheelers												
Litigation/court cases, if any, against the project (provide details)	Nil as declared by proponent												
Right & nature of ownership of land	Private land												
Is the property forest land/govt. land/own land	Own land												
Details of Authorised Signatory	Mr. K.C. Raju, Managing Director, M/s Kent Constructions Pvt. Ltd. Door No. 63/3441-A166, Kent Hail Garden, 1st Floor, Stadium Link Road, Near Jawaharlal Nehru International Stadium, Palarivattom P.O., Cochin, Kerala-682025.												
Details of NABET approved EIA consultant organization	M/s Environmental Engineers & Consultants Pvt. Ltd. (at Sr. No. 59 as per MoEF & CC list of Accredited Consultant Organization ) <i>Head Office :-</i> A1-198, JanakPuri, New Delhi. <i>Branch Office:-</i> C-306, Kanchanjunga Apartments, Palarivattom P.O., Kochi, Kerala.												

3. The proposal was considered in the 58<sup>th</sup> Meeting of SEAC held on 28<sup>th</sup> & 29<sup>th</sup> June 2016. Further to the intimation of SEAC, the proponent and engineer attended the meeting and the engineer made a power point presentation about the salient features of the project briefly. The Committee appraised the proposal based on Form 1, Form I A and conceptual plan. The Committee recommend for issuance of EC for the construction project subject to the general conditions and to the following specific conditions.

1. No access shall be provided from the Pipeline Road as indicated in the plan. Access should only from Stadium Link Road and should have minimum width as prescribed in relevant rules and no exemption shall be provided for the same.
2. Treated effluent shall be disposed off only through the drainage facility available in Stadium Link Road.
3. Minimum 1200KL capacity shall be provided for rain water harvesting.

4. The proposal was considered in the 57<sup>th</sup> Meeting of SEIAA held on 26<sup>th</sup> August 2016. Authority accepted the recommendation of 59<sup>th</sup> SEAC and decided to issue environmental clearance subject to the specific conditions mentioned in *para 3* and the general conditions for construction projects. The Authority approved the application for issuance of E.C. as per the recommendations of SEAC incorporating the Environment Management Plan, mitigation measures and the green building conditions as under.

1. There shall be RWH facility with adequate capacity
2. Technology and capacity of the STP to be indicated with discharge point (if any) of the treated effluent water not conforming to specifications shall not be let out water bodies
3. Effluent water not conforming to specifications shall not be let out water bodies
4. Maximum reuse of grey water for toilet flushing and gardening and construction work shall be ensured
5. Dual plumbing for flushing shall be done
6. Provisions of disposal of e wastes, solid wastes, non biodegradables, hazardous materials and separate parking facility for building shall be provided
7. Generation of solar energy to be mandatory for own use and/ or to be provided to the grid
8. There shall not be any compromise on safety conditions and facilities to be provided by the project proponent, which shall be ensured for occupation, regularisation or consent to operate.

5. Environmental clearance as per the EIA notification 2006 is hereby accorded for the proposed expansion of existing Residential Complex (“Kent Palm Grove”) project in Sy.Nos.

221/3 & 224/1 at Poonithura Village, Cochin Corporation, Kanayannur Taluk, Ernakulam District, by Sri.K. C. Raju, subject to the specific conditions stipulated in para3 and Green Building conditions in *para 4* above, all the environmental impact mitigation and management measures undertaken by the project proponent in the Forms I and IA and other documents submitted to SEIAA and the mitigation measures proposed in the table in *para 2* above. The assurances and clarifications given by the proponent will be deemed to be a part of these proceedings as if incorporated herein. Also the general conditions for projects other than mining, appended hereto will be applicable and have to be strictly adhered to.

6. Validity of this environmental clearance will be seven years from 01.06.2016, subject to earlier review in the event of non- compliance or violation of any of the conditions stipulated herein.

7. Compliance of the conditions herein will be monitored by Authority or its agencies and also by the regional office of the Ministry of Environment& Forests Government of India, Bangalore.

- I. Necessary assistance for entry and inspection should be provided by the project proponent and those who are engaged or entrusted by him to the staff for inspection or monitoring.
- II. Instances of violation if any shall be reported to the District Collector, Eranakulam to take legal action under the Environment (Protection) Act 1986.
- III. The given address for correspondence with the authorised signatory of the project is Sri. K.C. Raju. Managing Director, M/s Kent Constructions Pvt. Ltd., Door No. 63/3441-A166, Kent Hail Garden, 1<sup>st</sup> Floor, Stadium Link Road, Near Jawaharlal Nehru International Stadium, Palarivattom P.O., Cochin -682025.

Sd/

V. S., Senthil, I.A.S.  
Member Secretary, SEIAA

To,

Sri. K.C. Raju.  
Managing Director,  
M/s Kent Constructions Pvt. Ltd.,  
Door No. 63/3441-A166, Kent Hail Garden,  
1<sup>st</sup> Floor, Stadium Link Road,  
Near Jawaharlal Nehru International Stadium,  
Palarivattom P.O., Cochin -682025

Copy to

1. The District Collector, Ernakulam
2. Tahsildar, Ernakulam.
3. The District Town Planner, Ernakulam.
4. Additional Chief Secretary, Environment Department,  
Government of Kerala.
6. ✓ Chairman SEIAA
7. O/C.
8. Website
9. S/F



Forwarded/ By order

*Rajendran*

Administrator

**T.C. RAJENDRAN CHETTIAR**  
Administrator

State Environment Impact Assessment Authority  
Pallimukku, Pettan  
Thiruvananthapuram-24  
Phone No: 0471-2742282

**GENERAL CONDITIONS** *(for projects other than mining)*

- (i) Rain Water Harvesting capacity should be installed as per the prevailing provisions of KMBR / KPBR, unless otherwise specified elsewhere.
- (ii) Environment Monitoring Cell as agreed under the affidavit filed by the proponent should be formed and made functional.
- (iii) Suitable avenue trees should be planted along either side of the tarred road and open parking areas, if any, inclusive of approach road and internal roads.
- (iv) The project shall incorporate devices for solar energy generation and utilization to the maximum possible extent with the possibility of contributing the same to the national grid in future.
- (v) Safety measures should be implemented as per the Fire and Safety Regulations.
- (vi) STP should be installed and made functional as per KSPCB guidelines including that for solid waste management.
- (vii) The conditions specified in the Companies Act, 2013 should be observed for Corporate Social Responsibility.
- (viii) The proponent should plant trees at least 5 times of the loss that has been occurred while clearing the land for the project.
- (ix) Consent from Kerala State Pollution Control Board under Water and Air Act(s) should be obtained before initiating activity.
- (x) All other statutory clearances should be obtained, as applicable, by project proponents from the respective competent authorities including that for blasting and storage of explosives.
- (xi) In the case of any change(s) in the scope of the project, the project would require a fresh appraisal by this Authority.
- (xii) The Authority 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 Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
- (xiii) The stipulations by Statutory Authorities under different Acts and Notifications should be complied with, including the provisions of 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 EIA Notification, 2006.
- (xiv) The environmental safeguards contained in the EIA Report should be implemented in letter and spirit.
- (xv) Provision should be made for supply of kerosene or cooking gas and pressure cooker to the labourers during construction phase.
- (xvi) Officials from the Regional of MOEF, Bangalore who would be monitoring the implementation of environmental safeguards should be given full co-operation, facilities and documents/data by the project proponents during their inspection. A complete set of all the documents submitted to MoEF should be forwarded to the CCF, Regional Office of MOEF, Bangalore.
- (xvii) These stipulations would be enforced among others under the provisions of Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control Pollution) at 1981, the Environment (Protection) Act, 1986, the Public Liability (Insurance) Act, 1991 and EIA Notification, 2006.

- (xviii) Environmental Clearance is subject to final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation Vs. Union of India in Writ Petition (Civil) No.460 of 2004 as may be applicable to this project.
- (xix) Any appeal against this Environmental Clearance shall lie with the National Environment Appellate Authority, if preferred, within a period of 30 days as prescribed under section 11 of the National Environment Appellate Act, 1997.
- (xx) The project proponent should advertise in at least two local newspapers widely circulated in the region, one of which (both the advertisement and the newspaper) shall be in the vernacular language informing that the project has been accorded Environmental Clearance and copies of clearance letters are available with the Department of Environment and Climate Change, Govt. of Kerala and may also be seen on the website of the Authority at [www.seiaakerala.org](http://www.seiaakerala.org). The advertisement should be made within 10 days from the date of receipt of the Clearance letter and a copy of the same signed in all pages should be forwarded to the office of this Authority as confirmation.
- (xxi) A copy of the clearance letter shall be sent by the proponent to concerned GramaPanchayat/ District Panchayat/ Municipality/Corporation/Urban Local Body and also to the Local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The Environmental Clearance shall also be put on the website of the company by the proponent.
- (xxii) The proponent shall submit half yearly reports on the status of compliance of the stipulated EC conditions including results of monitored data (**both in hard copies as well as by e-mail**) and upload the status of compliance of the stipulated EC conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the respective Regional Office of MoEF, Govt. of India and also to the Directorate of Environment and Climate Change, Govt. of Kerala.
- (xxiii) The details of Environmental Clearance should be prominently displayed in a metallic board of 3 ft x 3 ft with green background and yellow letters of Times New Roman font of size of not less than 40.
- (xxiv) The proponent should provide notarized affidavit (*indicating the number and date of Environmental Clearance proceedings*) that all the conditions stipulated in the EC shall be scrupulously followed.

## **SPECIFIC CONDITIONS**

### **I. Construction Phase**

- i. "Consent for Establishment" shall be obtained from Kerala State Pollution Control Board under Air and Water Act and a copy shall be submitted to the Ministry before start of any construction work at the site.
- ii. All required sanitary and hygienic measures should be in place before starting construction activities and to be maintained throughout the construction phase.
- iii. A First Aid Room will be provided in the project both during construction and operation of the project.
- iv. Adequate drinking water and sanitary facilities should be provided for construction workers at the site, Provision should be made for mobile toilets. The safe disposal of wastewater and solid wastes generated during the construction phase should be ensured.
- v. All the topsoil excavated during construction activities should be stored for use in horticulture/landscape development within the project site.

- vi. Disposal of muck during construction phase should 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.
- vii. Soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.
- viii. Construction spoils, including bituminous material and other hazardous materials, must not be allowed to contaminate watercourses and the dump sites for such material must be secured so that they should not leach into the ground water.
- ix. Any hazardous waste generated during construction phase, should be disposed off as per applicable rules and norms with necessary approval of the Kerala State Pollution Control Board.
- x. The diesel generator sets to be during construction phase should be low sulphur diesel type and should conform to Environment (Protection) Rules prescribed for air and noise emission standards.
- xi. The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from Chief Controller of Explosives shall be taken.
- xii. 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 the applicable air and noise emission standards and should be operated only during non-peak hours.
- xiii. Ambient noise levels should conform to residential standards both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during construction phase. Adequate measures should be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB/KSPCB.
- xiv. Fly ash should be used as building material in construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27<sup>th</sup> August 2003. (The above condition is applicable Power Stations).
- xv. Ready mixed concrete must be used in building construction.
- xvi. Storm water control and its re-use per CGWB and BIS standards for various applications.
- xvii. Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
- xviii. Permission to draw ground shall be obtained from the Computer Authority prior to construction/operation of the project.
- xix. Separation of grey and black water should be done by the use of dual plumbing line for separation of grey and black water.
- xx. Fixtures for showers, toilet flushing and drinking should be of low flow either by use of aerators or pressure reducing devices or sensor based control.
- xxi. Use of glass may be reduced by upto 40% to reduce the electricity consumption and load on airconditioning. If necessary, use high quality double glass with special reflective coating in windows.
- xxii. Roof should meet prespective requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfil requirement.
- xxiii. Opaque wall should meet prespective requirement as per energy Conservation Building Code which is proposed to be mandatory for all airconditioned spaces while it is aspirational for non-airconditioned spaces by use of appropriate thermal insulation material to fulfil requirement.

- xxiv. The approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of fire fighting equipments, etc. as per National, Building Code including protection measures from lightning etc.
- xxv. Regular supervision of the above and other measures for monitoring should be in place all through the construction phase, so as to avoid disturbance to the surroundings.
- xxvi. Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it was found that construction of the project has been started without obtaining environmental clearance.

## **II. Operation Phase**

- i. The installation of the Sewage Treatment Plant (STP) should be certified by an independent expert and a report in this regard should be submitted to the Ministry before the project is commissioned for operation. Treated effluent emanating from STP shall be recycled / reused to the maximum extent possible. Treatment of 100% grey water by decentralised treatment should be done. Discharge of unused treated effluent shall conform to the norms and standards of the Kerala State Pollution Control Board. Necessary measures should be made to mitigate the odour problem from STP.
- ii. The solid waste generated should be properly collected and segregated. Wet garbage should be composted and dry/inert solid waste should be disposed off to the approved sites for land filling after recovering recyclable material.
- iii. Diesel power generating sets proposed as source of back up power for elevators and common area illumination during operation phase 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 low sulphur diesel. The location of the DG sets may be decided with in consultation with Kerala State pollution Control Board.
- iv. Noise should be controlled to ensure that it does not exceed the prescribed standards. During night time the noise levels measured at the boundary of the building shall be restricted to the permissible levels to comply with the prevalent regulations.
- v. The green belt of the adequate width and density preferably with local species along the periphery of the plot shall be raised so as to provide protection against particulates and noise.
- vi. Weep holes in the compound walls shall be provided to ensure natural drainage of rain water in the catchment area during the monsoon period.
- vii. Rain water harvesting for roof run-off and surface run-off, as plan submitted should be implemented. Before recharging the surface run off, pre-treatment must be done to remove suspended matter, oil and grease. The borewell for rainwater recharging should be kept at least 5 mts. Above the highest ground water table.
- viii. The ground water level and its quality should be monitored regularly in consultation with Central Ground Water Authority.
- ix. Traffic congestion near the entry and exit points from the roads adjoining the purposed project site must be avoided. Parking should be fully internalized and no public space should be utilized.
- x. A Report on the energy conservation measures conforming to energy conservation norms finalise by Bureau of Energy Efficiency should be prepared incorporating details about building materials & technology, R & U Factors etc and submit to the Ministry in three months time.

- xi. Energy conservation measures like installation of CFLs/TFLs for the lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Use CFLs and TFLs should be properly collected and disposed off/sent for recycling as per the prevailing guidelines/rules of the regulatory authority to avoid mercury contamination. Use of solar panels may be done to the extent possible.
- xii. Adequate measures should be taken to prevent odour problem from solid waste processing plant and STP.
- xiii. The building should have adequate distance between them to allow movement of fresh air and passage of natural light, air and ventilation.

### **III Post Operational Phase**

Environmental Monitoring Committee with defined functions and responsibility should foresee post operational environmental problems e.g. development of slums near the site, increase in traffic congestion, power failure, increase in noise level, natural calamities, and increase in suspended particulate matter etc. solve the problem immediately with mitigation measures



*Rajendran*

For Member Secretary, SEIAA  
G. RAJENDRAN CHETTIAR  
Administrator  
State Environment Impact Assessment Authority  
Pallimukku, Pettah  
Thiruvananthapuram-24  
Phone No: 0471-2742262