



सत्यमेव जयते

**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:** Environmental clearance for proposed Apartment Project at Sy. No. 109/1A1, at Nellikode Village, Kozhikode Taluk & Municipality and Kozhikode District, Kerala by Sri. Rameshan P., M/s ULCCS IT Infrastructure (P) Ltd - E.C. Granted. Orders issued

**State Environment Impact Assessment Authority, Kerala**

**No. 831/SEIAA/EC4/2705/2015**

**Dated: 29-07-2016**

- Ref:
- 1 Application dated 7-7-2015 from Sri. Rameshan, P., Chairman & Managing Director, M/s ULCCS IT Infrastructure (P) Ltd , Special Economic Zone, Nellikode Village, Nellikode P.O., Kozhikode-673016
  - 2 Minutes of the 48<sup>th</sup> meeting of SEAC held on 6-11-2015
  - 3 Minutes of the 52<sup>nd</sup> meeting of SEAC held on 7/8-02-2016
  - 4 Minutes of the 51<sup>st</sup> meeting of SEIAA held on 29-03-2016
  - 5 Minutes of the 54<sup>th</sup> meeting of SEIAA held on 21-6-2016

**ENVIRONMENTAL CLEARANCE NO. 95 /2016**

Sri. Rameshan, P., Chairman & Managing Director, M/s ULCCS IT Infrastructure (P) Ltd , Special Economic Zone, Nellikode Village, Nellikode P.O., Kozhikode-673016 vide his application received on 14-7-2015, has sought Environmental Clearance under EIA Notification, 2006 for proposed apartment project at Sy. No. 109/1A1, at Nellikode Village, Kozhikode Taluk & Municipality and Kozhikode District. It is interalia, noted that the project comes under the Category B, 8(a) of Schedule of EIA Notification 2006. No forest land is involved in the present project. Other details of the project are as under:

Name of project	Environmental Clearance for the proposed Apartment project to be developed by M/s ULCCS IT Infrastructure Pvt. Ltd.
Brief description of the project	Proposed 188 apartments project with total plot area 0.73462 ha. (7,346.258 sq. m.) and total built-up area 39,031.32 sq. m.
Category/Subcategory & Schedule	Category 'B', Schedule 8 (a)
Location Sy no/ district,	Survey Nos. 109/1A1, Village Nellikode, Kozhikode Municipality,

Taluk/ village etc.		Kozhikode Taluk & District, Kerala	
GPS co-ordinates		Latitude (N)	11°15'25.71" to 11°15'22.75"
		Longitude (E)	75°49'57.75" to 75°49'53.75"
for Construction projects	Built up area (in m <sup>2</sup> )	39,031.32 sq.m	
	No. of floors	Basement + Ground + 28 floors	
	Maximum height from ground level	98.7252 m.	
	Facilities proposed	188 Apartments with supporting infrastructure facilities	
	Details of project cost	About Rs. 89 Crores	
	Financial statement including funding source and details of insurance	Source :- Own source & bank loan  Insurance :- Insurance to the workers and machinery during construction phase.	
	Activity schedule of the project	About 30 months	
CRZ recommendations		Not applicable	
Forest clearances			
Does it attract violation proceedings		Not applicable	
Environment Management plan/ Eco restoration plan (brief details)			<b>MANAGEMENT PLAN:</b>
		Air pollution	Provision will be made for D.G. sets with noise control measures and stack for flue gas.
		Water pollution	Provision of STP for treatment of sewage and it's partially recycling for meeting the water requirement for flushing & horticulture purposes.
		Noise	Provision will be made for D.G. sets with noise control measures.
		Solid Waste Management	Provision of bio-gas generation plant within the project site for disposal of the bio-degradable solid waste.
		Eco restoration	As part of the eco restoration, large number of saplings of native species would be planted.
<b>ABOUT THE PROJECT</b>			
<b>Environmental parameters considered</b>			
<b>WATER</b>			
Water requirement & sources	The total domestic water requirement of 131 KLD (which includes daily fresh water requirement of 86 KL). Treated water from STP to be used for flushing of toilets 45 KLD & Horticulture requirement will be of 5 KLD. Source :- Stored Rain water (Tanks), Open Well, KWA water supply and treated water from STP.		
RWH units proposed	Yes,  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	Yes,  Sewage Treatment Plant		
Impoundment, damming, culverting, realignment or other changes to the	No		

hydrology of watercourses or aquifers?	
Water quality meeting requirements	Water quality meets requirements after the treatment of water (filtration & disinfection).
Does it have provisions for use of recycled water	Yes, Treated water from STP to be used for flushing of toilets & horticulture water requirement.
<b>LAND</b>	
Proximity to forest lands	None within the study area
Access road to the site – Width & Condition	15 m. wide tarred road, S side
Storage of explosives /hazardous substances	Yes, all precautionary measures in the storage & handling of HSD & PNG waste will be followed.
Facility for solid waste management	<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-gas generation plant.</li> </ul>
Topographic features/ slope	There are some of native species of trees and different varieties of shrubs, herbs, grass & climbers at site. The slope of the site is towards south & south west side
Proneness of the area for landslides	No
Significant land disturbance resulting in erosion, subsidence & instability	No
Top soil, overburden etc.	Excavation of earthwork will be carried out at site. Laterite stones blocks recovered during the excavation will be used in the construction of the proposed building block. The top soil which is fertile will be kept at site for landscaping work.
<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	1,700 kVA
Energy sources	KSEB & D. G. Sets (320 kVA x 1 no. + 250 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.
<b>BIODIVERSITY</b>	
Presence of any endangered species or red listed category	Nil as stated by the 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, existing trees, shrubs, herbs, grass & climbers will be cleared. To be rectified as per EMP.

Likely displacement of fauna	Nil as stated by the proponent.																					
Any introduction of alien / invasive species	Yes. Invasive species (shrubs) :- ➤ <i>Chromolaena odorata</i> (L.) R.M.King & H.Rob. ➤ <i>Lantana camara</i> L. ➤ <i>Ageratum conyzoides</i> L.																					
<b>SOCIAL ASPECTS</b>																						
Proximity to nearest habitation	The project site is within the Corporation limits and several houses located within the 500 m. radius.																					
CSR related to the project/ allocation/ time frame (details mandatory)	<table><tr><th colspan="3">Proposed common CSR Budget</th></tr><tr><th>Sl.No.</th><th>Particulars</th><th>Amount Rs. In lakhs</th></tr><tr><td>1.</td><td>Infrastructure development</td><td>Recurring = Nil Non-recurring = Rs. 6.3 lakhs</td></tr><tr><td>2.</td><td>Capacity building of Schools</td><td>Recurring = Rs. 1.82 lakhs Non-recurring = Rs. 25.77 lakhs</td></tr><tr><td>3.</td><td>Skill development programme</td><td>Recurring = Rs. 12.0 lakhs Non-recurring = Nil</td></tr><tr><td>4.</td><td>Help the helpless</td><td>Recurring = Rs. 18.60 lakhs Non-recurring = Rs. 3.0 lakhs</td></tr><tr><td></td><td>Total</td><td>Recurring = Rs. 32.42 lakhs Non-recurring = Rs. 35.07 lakhs</td></tr></table>	Proposed common CSR Budget			Sl.No.	Particulars	Amount Rs. In lakhs	1.	Infrastructure development	Recurring = Nil Non-recurring = Rs. 6.3 lakhs	2.	Capacity building of Schools	Recurring = Rs. 1.82 lakhs Non-recurring = Rs. 25.77 lakhs	3.	Skill development programme	Recurring = Rs. 12.0 lakhs Non-recurring = Nil	4.	Help the helpless	Recurring = Rs. 18.60 lakhs Non-recurring = Rs. 3.0 lakhs		Total	Recurring = Rs. 32.42 lakhs Non-recurring = Rs. 35.07 lakhs
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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	Yes, 296 Cars + 94 Two wheelers																					
Litigation/court cases, if any, against the project (provide details)	No																					
Right & nature of ownership of land	Private land																					
Is the property forest land/govt. land/own land	Own land																					
Details of Authorized. Signatory	Sri. Rameshan, P., Chairman & Managing Director, M/s ULCCS IT Infrastructure (P) Ltd , Special Economic Zone, Nellikode Village, Nellikode P.O., Kozhikode-673016 Email:kishor@ulcyberpark.com, info@ulcyberpark.com Ph.No.0495-2741404, 2351401																					
Details of NABET	M/s Environmental Engineers & Consultants Pvt. Ltd.																					

approved EIA consultant organization	(Sr. No. 55 as per MoEF & CC list of Accredited Consultant Organization) Head Office :- A1-198, Janak Puri, New Delhi.-110058 Email:eecnewdelhi@yahoo.in Branch Office:- C-306, Kanchanjunga Apartments, Palarivattom P.O., Kochi, Kerala.
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2. The proposal was placed before 48<sup>th</sup> meeting of SEAC held on 6-11-15. The Committee deferred the item for Field Inspection focussed on stability of the cuttings, facility of discharging treated water to the public drain system, location of RWH pond, nature and texture of soil, and violations if, any. As per the decision taken by 48<sup>th</sup> SEAC field inspection was conducted on 13-12-15 by the subcommittee members. The field inspection details are given below:

*"The site is a barren and plain land adjacent to the already constructed building of the proponent. On verification, it is found that the details provided by the proponent in the project proposal was factual. The proponent is harvesting the rain water efficiently by providing appropriate pit, drainage and RWH structures. Proper groundwater recharge is also done. Safe distance about 15 m is provided from the cutting for the proposed building. General conditions are applicable."*

3. The proposal was again placed in the 52<sup>nd</sup> meeting of SEAC held on 7/8-02-2016. The Committee appraised the proposal based on the Form I, Form IA, Conceptual plan, Field Inspection Report and other related documents submitted and decided to recommend for issuance of Environmental Clearance, with specific condition in addition to the general conditions stipulated for non-mining projects.

1. To the extent possible local Biodiversity Management Committee shall be involved in the environmental management/restoration activities.
2. Reclamation and eco-restoration should be done by planting native species.

4. The proposal was placed in the 51<sup>st</sup> meeting of SEIAA held on 29-3-2016. The Authority found that this is a 30 floor building with 99 m height. Authority wanted to verify these parameters. Also conditions on green norms and e-waste management to be incorporated. After obtaining the clarifications from the proponent on structure and the environmental aspects the case may be placed before the Authority for final decision on grant of E.C. As decided by 51<sup>st</sup> SEIAA, the proponent submitted clarifications on 1-6-2016, which are extracted below:

- a. The structural Stability Certificate issued by the Structural Engineer.
- b. The Green Environmental Norms proposed within the site are as follows:
  1. Rain water storage capacity of 600 KL and the stored rainwater will be used to meet the non-flushing water requirement after filtration and disinfection.

2. The sewage of the proposed project will be treated within the project premises through STP (126 KL Capacity) and treated water will be used for flushing & horticulture water requirement.
  3. The biodegradable solid waste generated from the site will be treated through Bio-gas generation plant proposed within the site.
  4. About 250 trees of local native species will be proposed to plant within the green area. The green area proposed within the site is 1840.37 sq. m (25%).
  5. Solar energy will be used for lighting in external area and energy efficient lighting fixtures will be used to conserve electricity.
  6. Acoustic enclosure with stack height as per CPCB guidelines will be proposed for the DG Sets (standby source of electricity).
- c. The proposed project is a residential project and e-waste generated from individual house will be in less quantity and the e- waste will be stored separately and disposed through KSPCB approved agency.
5. The proposal was again considered by the Authority in its 54<sup>th</sup> meeting held on 21-6-2016. Authority examined the documents submitted by proponent and recommendations of SEAC. Authority decided to grant EC to the project subject to usual Green conditions, specific conditions by SEAC given in para 3 and the general conditions for building projects.
6. Environmental Clearance as per the EIA notification 2006 is hereby accorded for the proposed apartment project at Sy. No. 109/1A1 at Nellikode Village, Kozhikode Taluk & Municipality and Kozhikode District subject to the specific conditions stipulated in para3 above, all the environmental impact mitigation and management measures undertaken by the project proponent in the Form I and Form IA and other documents submitted to SEIAA, the mitigation measures proposed in the table in para1 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 and the following green guidelines will be applicable and have to be strictly adhered to.
- There shall be RWH facility with adequate capacity.
  - Technology and capacity of the STP to be indicated with discharge point (if any) of the treated effluent.
  - Effluent water not conforming to specifications shall not be let out to water bodies
  - Maximum reuse of grey water for toilet flushing and gardening and construction work shall be ensured.
  - Dual plumbing for flushing shall be done.
  - Provisions for disposal of e-wastes, solid wastes, non-biodegradables and separate parking facility for the buildings shall be provided.
  - Generation of solar energy to be mandatory for own use and/or to be provided to the grid.
  - Mitigation measures to reduce carbon dioxide production as part of climate change action shall be adopted.

- 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.

7. Validity of the Environmental Clearance will be seven years from the date of this clearance, subject to earlier review in the event of genuine complaint from anybody from the safety area or violation or non-compliance of any of the conditions stipulated herein.

8. Compliance of the conditions herein will be monitored by the Authority or its agencies and also by the regional office of the Ministry of Environment & Forests, Govt. 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, Kozhikode to take legal action under the Environment (Protection) Act, 1986.

iii) The given address for correspondence with the authorized signatory of the project Sri. Rameshan, P., Chairman & Managing Director, M/s ULCCS IT Infrastructure (P) Ltd., Special Economic Zone, Nellikode P.O., Kozhikode-673016.

Sd/-  
V.S. SENTHIL I.A.S  
Member Secretary, SEIAA  
&  
Additional Chief Secretary  
Environment & Forest Department  
Government of Kerala

To,

Sri. Rameshan, P.,  
Chairman & Managing Director,  
M/s ULCCS IT Infrastructure (P) Ltd.,  
Special Economic Zone,  
Nellikode P.O.,  
Kozhikode-673016

Copy to,

1. MoEF Regional Office, Southern Zone, Kendriya Sadan, 4<sup>th</sup> Floor, E&F Wing, II Block, Koramangala, Bangalore-560034.
2. The Additional Chief Secretary to Government, Environment Department, Government of Kerala.

3. Chief Town Planner, Palayam, Thiruvananthapuram.
4. District Collector, Kozhikode
5. Secretary, Kozhikode Municipal Corporation Office, Mananchira, Kozhikode-673032.
- ✓ 6. Chairman, SEIAA.
7. Website.
8. S/f
9. O/c



Forwarded/ By Order

Administrator,  
SEIAA



**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 prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material to fulfil requirement.
- xxiii. Opaque wall should meet prescriptive 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 lightening 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 protect 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 affluent 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 affluent 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 confirming 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



For Member Secretary, SEIAA

**G. RAJEEV**  
Administrator  
State Environment Impact Assessment Authority  
Pallimukku, Pattah  
Thiruvananthapuram-695024  
Phone: 0471-2762264

