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Validity expires on 08-09-2023

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 the proposed Kerala Technology Innovation Zone Phase II & Phase III project in Survey no. 321 Part 1 in Thrikkakara North Village, Kanayannur Taluk, Ernakulam District, Kerala application of Dr. Jayasankar Prasad C., Chief Executive Officer, M/s Kerala Start up- Mission - EC granted

STATE ENVIRONMENTAL IMPACT ASSESSMENT AUTHORITY

No. 910/SEIAA/EC3/3596/2015

Dated, Thiruvananthapuram 9-09-2016

- Ref: 1. Application dated 08-09-2015 from Sri. Dr. Jayasankar Prasad C., Chief Executive Officer M/s Kerala Start up- Mission., Tejaswini building, Technopark campus, Kariyavattom P.O., Thiruvananthapuram-695 581.
3. Minutes of the 56th meeting of SEAC held on 6th and 7th June, 2016.
5. Minutes of the 55th meeting of SEIAA held on 16th July 2016

Environmental Clearance No. 158/B/2016

Dr. Jayasankar Prasad C., Chief Executive Officer M/s Kerala Start up- Mission., Tejaswini building, Technopark campus, Kariyavattom P.O., Thiruvananthapuram-695 581, vide his application received on 08/09/2015 has sought Environmental Clearance under the EIA Notification, 2006 for the proposed Kerala Technology Innovation Zone Phase II & Phase III project by M/s Kerala Start up- Mission in Survey no. 321 Part 1 in Thrikkakara North Village, Kanayannur Taluk, Ernakulam District. It is inter alia, 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.

The proposed application is for an expansion project. The total plot area of the project is 5.34 ha and the existing built up area is 22343.41 m². The proposed built up area is 28092.40m². The total domestic water requirement for the proposed project during operation phase is 260 KLD. The total amount of treated water available for reuse is 198 KLD. The total cost of the project is Rs. 210 Crores. Other details of the project are as under:

Brief description of the project		Kerala Start Up Mission (K-SUM) (Formal name of Technopark Technology Business Incubator (T-TBI) is formally known as Kerala Start Up Mission) proposes to develop an incubation centre within KINFRA Hi tech Park, Kalamassery. The KINFRA Hi-tech Park is spread over 94.69 ha of land includes a cluster building infrastructures dedicated for biotechnology, electronics hardware, gem and jewellery, education, the special economic zones targeted at niche segments of economy.	
Category/Subcategory & Schedule		Category 8 B	
Location Syno/ district, Taluk/ village etc.		321 Part 1, Thrikkakkar north, Kanayannur Thaluk, Ernakulum district	
for Construction projects	Built up area (in m2)	Existing : 2234 3.41 Sq.mt Proposed : 28092.40 Sq. mt.	
	No. of floors	7	
	Maximum height from ground level	27.2 m	
	Facilities proposed	Office space with associated amenities like cafeteria	
	Details of project cost	210 Crores.	
	Financial statement including funding source and details of insurance	Government fund	
Does it attract violation proceedings		NA	
Env't Mgmt plan/ Eco restoration plan (brief details)		AIR POLLUTION	<p>Construction Phase</p> <ul style="list-style-type: none"> • The construction area will be screened properly • Water will sprinkled in the construction yard in a regular manner • Pollution- under -check (PUC) should be made mandatory for all vehicles used for construction activities. • Regular maintenance and inspection of the machineries should be conducted. • The excavators, loaders, vehicles and cranes should be operated only well within the fenced area of the project site. • Water should be sprinkled periodically to suppress the dust generation. • Personnel masks should be provided to workers. • The material transport vehicles should be adequately covered. • The DG should be operated only on standby mode. • Periodic emission test should be conducted. • The stack height of the DG set has to be in conformance with the CPCB guidelines.

		<p>Operation Phase</p> <ul style="list-style-type: none"> • Open burning of the Waste particularly if it contains plastics/polyethylene will be strictly prohibited since it produces dioxins in addition to other toxic gases. • A vegetation belt which involve evergreen trees and pollution suppressing plants will be maintained in the plot in order to minimise the air pollution from the pollutant emissions. • DG sets comply with MoEF norms of emissions will be used • Vehicles with pollution under control certificate may be allowed to ply.
	WATER POLLUTION	<p>Construction Phase</p> <ul style="list-style-type: none"> • Liquid mud will be collected in the temporary pits created in the site during the construction phase • The site clearance should not be initiated during or prior to heavy monsoon season. • Drainage from the construction area should be provided with provision for detention to avoid increase turbidity at the receiving water course. • The construction machineries and vehicles should be inspected periodically for the detection of leaks and spillages. • The maintenance and inspection of vehicles should be confined to designated paved areas only. • The oily surface run off should be collected for treatment and disposed of. • Confined area which is situated away from the water bodies should be allotted for cleaning for construction machineries. • Excavated earth should be stored properly and re used for levelling and filling. The surplus earth should be stored in such a way that the surface run off from the construction site will not lead to nearby water courses. • Toilets, sewage collection system and septic tanks shall be provided in labour camp and which shall be properly maintained. • Domestic waste generated from labour camp will never be permitted to dumping in water courses <p>Operational phase</p> <ul style="list-style-type: none"> • Waste water generated from the activities will be treated in a sewage treatment plan. • Storm water will be collected and rooted to the natural lake existing near to the plot .
	NOISE	Construction Phase

		<ul style="list-style-type: none"> Well maintained drilling equipment's will be used Diesel generator should have noise control measures to meet the noise standards set by Central Pollution Control Board Workers shall not be exposed to sound of more than 85 - 90 dB for more than eight hours a day Noise level of vehicles used for construction activities should meet the noise standards set by Central Pollution Control Board (maximum 80 dB(A)) Construction contract shall clearly specify the use of equipment emitting noise of not greater than 90 dB (A) for the eight hour operation shift. <p>Operational</p> <ul style="list-style-type: none"> DG sets will be provided with acoustics enclosure DG sets will be placed in acoustically treated room
	Solid waste Management	<p>Construction Phase</p> <ul style="list-style-type: none"> The construction waste should be handled properly by the construction contractor Periodical maintenance of waste handling facilities should be undertaken. Provision of separate waste bins for bio-degradable, non-degradable and domestic waste should be made and management shall be in conformance with the waste management proposal. Regular inspection of the camp should be done by the project executing agency to confirm the compliance with the routine waste management practices. <p>Operational Phase</p> <ul style="list-style-type: none"> Proper waste management will be adopted as presented in form I A
	Eco restoration	A thick green belt will be developed as part of the project

ABOUT THE PROJECT

Environmental parameters considered	Description
RWH units proposed	The entire rain water generated from the proposed plot after the development will be diverted to a detention pond proposed at the lowest point within the plot through a well-planned storm water management system shown in Conceptual plan DWG No 3 which consists of connecting drain network , recharge pits , culverts and a detention pond constructed at lower contour elevation of the plot near to the natural lake. From the detention pond this water will be diverted to the natural lake existing at the north western side of the proposed plot (the main water source), through the culvert across the road at the northern side. The amount of rain water that can be harvested from the site after the development is quantified as

	44677 KL /annum.
Facilities for liquid waste treatment	<p>During the construction period adequate no of toilets will be provided for male & female with adequate water supply. It would be a better option to provide portable toilets at the construction site and the night soil from these to be disposed through designated septic tanks at any place instead of constructing septic tanks at site.</p> <p>During the operational phase separate STP will be provided for the proposed in the project. It is estimated that total waste water of an amount of 208 m3/day will be generated under maximum occupancy condition and an amount of 198 m3/day treated water with inland irrigation surface water standard is expecting, which will be reused for flushing, chiller water demand and gardening.</p> <p>The Sewage Treatment Plant is designed on the based Activated Sludge process followed by ultra-filtration. The treated water from STP is stored in a separate treated water sump, which is integrated with the STP. Sewage treatment plant being considered in two locations such as Building -3 -1No separate STP and building 1,2and residential area is centralized STP.</p>
Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	Nil
Does it have provisions for use of recycled water	It is estimated that total waste water of an amount of 208 m3/day will be generated under maximum occupancy condition and an amount of 198 m3/day treated water with inland irrigation surface water standard is expecting, which will be reused for flushing, chiller water demand and gardening.
LAND	
Proximity to forest lands	Nil
Access road to the site – Width & Condition	16 m & tarred road
Facility for solid waste mgmt	The provision for segregation, storage and disposal arrangement is provided as part of the project. Waste management scheme proposed for the construction and operation phase is presented in Annexure IX of form I A
Topographic features/ slope	The proposed site is located within the KINFRA park area at Kalamassery. The site is a rectangular plot with its long axis in a broad east-west direction, and forms part of a rolling lateritic planation surface dissected by broad valleys. The western edge of the plot ends up in a valley portion with very gentle slopes (0-20). Slope increases upwards (east wards) up to 15-200, and merges with the lateritic crest, where the slope is around 5-10 0 only.
Proneness of the area for landslides	Nil
Significant land disturbance resulting in erosion, subsidence & instability	Nil
ENERGY	
Energy requirement	<p>During construction : 30kW/day</p> <p>During operation phase : 2161 kW</p>
Extent of usage of alternative energy resources	<ul style="list-style-type: none"> • LED Standalone Solar street lighting system considered around 5 kW • The Solar generation for common area lighting system &

	Emergency lighting in interior fit-out considered on 3% of MD load of 2161 kW = 65 kW & the cost will be around 2.5 Lacs per kW Total Cost of 65 kW x 2.5 Lacs= 162.50 Lacs.. Space required @ terrace level 120Sq.Ft/KW.	
BIODIVERSITY		
Presence of any endangered species or red listed category	Nil	
Loss of native species and genetic diversity	No significant threat to the biodiversity is anticipated from the project execution since the proposed development site is situated within an active zone of urban and infrastructure development. The vegetation cover is composed mostly of planted trees, other ornamental species and weeds.	
Likely displacement of fauna	Nil	
Any introduction of alien / invasive species	Nil	
SOCIAL ASPECTS		
	NH 47	Bordering the site
	KINFRA hi tech park main road	Bordering the site
	Govt. College of Nursing	At an aerial distance of 0.37 km
	Co-operative Medical College	At an aerial distance of 0.4 km
CSR related to the project/ allocation/ time frame (details mandatory)	NA	
GENERAL		
Eeco restoration programmes	It is proposed to develop greenery in the project site, including aesthetically designed landscapes, walkways, gardens and green belts	
E-waste management	As per rules applicable	
Sufficiency of parking spaces/ traffic management	as per KMBR norms	
Litigation/court cases, if any, against the project (provide details)	Nil as stated by proponent	
Is the property forest land/govt. land/own land	Nil	
Details of Authorized Signatory	Dr.Jayasankar Prasad C Chief Executive Officer Kerala Start-Up Mission (Formerly Technopark Technology Business Incubator), Thejaswini Building Technopark Campus, Kariyavattom P.O Thiruvananthapuram ceo@technoparktbi.org	
Details of NABET approved EIA consultant organisation	M/s KITCO Ltd Femith's, PB No.4407 Puthiya Road, NH Bypass Vennala, Cochin-682 028 Kerala , India Phone : 91-484-4129000, 2805033	

2. The proposal was considered in the 56th Meeting of SEAC held on 6th & 7th 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 .. The Committee appraised the proposal based on Form 1, Form I A and conceptual plan. The Committee decided to recommend for issuance of EC subject to the general conditions.

3. Authority considered the proposal in its 55th meeting held on 16th July 2016. It was decided to accept the recommendation stated in Para2 and to issue E.C to the proposed Kerala Technology Innovation Zone Phase II & Phase III projects of M/s Kerala Startup Mission in Survey no. 321 Part 1 in Thrikkakara North Village, Kanayannur Taluk, Ernakulam District subject to the usual general conditions for non-mining 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.
4. Environmental clearance as per the EIA notification 2006 is hereby accorded for the proposed project by M/s Kerala Start up- Mission in Survey nos. 321 Part 1 in Thrikkakara North Village, Kanayannur Taluk, Ernakulam District subject to Green Building conditions in Para 3 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 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.

5. Validity of this environmental clearance will be seven years from 10.08.2016, subject to earlier review in the event of non-compliance or violation of any of the conditions stipulated herein.

6. 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, Ernakulam to take legal action under the Environment (Protection) Act 1986.
- III. The given address for correspondence with the authorised signatory of the project is Dr. Jayasankar Prasad C., Chief Executive Officer M/s Kerala Start up- Mission., Tejaswini building, Technopark campus, Kariyavattom P.O., Thiruvananthapuram-695 581

Sd/

V.S.SENTHIL, I.A.S
Member Secretary (SEIAA)

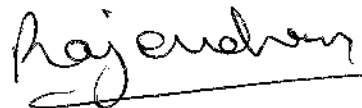
To,

Dr. Jayasankar Prasad C.,
Chief Executive Officer
M/s Kerala Start up- Mission.
Tejaswini building,
Technopark campus, Kariyavattom P.O.,
Thiruvananthapuram-695 581

Copy to

1. The District Collector, Ernakulam
2. Tahsildar, Ernakulam.
3. The District Town Planner, Ernakulam.
4. Additional Secretary, Environment Department,
Government of Kerala.
5. Principal Secretary, Information Technology Department
Government of Kerala.
- ✓ 6. O/C.
7. S/F

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) Act, 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. 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 27th 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 perspective 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

Rajendran

For Member Secretary, SEIAA



C. Rajendran

Chetti.

Administra.