

DR. H.MALLESHAPPA,I.F.S.,
MEMBER SECRETARY



STATE LEVEL ENVIRONMENT
IMPACT ASSESSMENT
AUTHORITY,
TAMILNADU,
3rd Floor, PanagalMaaligai,
No.1 Jeenis Road, Saidapet,
Chennai-15.

Letter No.SEIAA-TN/F – 1686/ EC(8a)/ 222 /2013 Dt: 8.10.2013

To

Thiru Rajendra Mootha
Chief Operating officer
01FA –First Floor,
IIT Madras Research Park
Chennai -600113.

Sir / Madam,

Sub: SEIAA, Tamilnadu –Environmental Clearance-Proposed construction of Research park **M/s. IIT Madras Research Park** - at S.No. 2D & 2F, (S.No.2, Block No. 6) Kanagam Village, Guindy – Manbalam Taluk, Chennai District, Tamilnadu under Category “B2” and Schedule S.No. 8(a) issued - reg

This has reference to your application dated 30.08.2013 submitted to the State Level Environment Impact Assessment Authority, Tamil Nadu seeking Environmental Clearance under the Environment Impact Assessment Notification, 2006, as amended.

It is noted, interalia that the project proposal involves to construct a Research Park at S.F.No. 2D & 2F, (S.No.2, Block No. 6) Kanagam Village, Guindy – Manbalam Taluk, Chennai District, Tamilnadu comprising **Block 1- Parking - G+5+ Terrace floors, Block 2- Office Block – G+10 floors, Block 3- Service Block–G, Block 4- Service Block- G** and Expected Occupancies – 2970. The area of the plot is 46215.10 m² and the built up area is 108172.20 m². The parking area as per report is 31634.4 m² and green belt area is 2711.51 m².

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Daily fresh water requirement for the project will be 271 KLD, which will be met from the CMWSSB water supply. The sewage generated after treatment will be 114 KLD out of which 60 KLD will be recycled for flushing, 10 KLD will be utilized for gardening & 44 KLD will be utilized for HAVC.

Solid Waste generation has been projected as 614 Kg /day out of which 249 Kg/day of Biodegradable waste, the 20 Kg/day of Organic sludge generation from STP will be used as manure for gardening, the 339 Kg/day of Non-Biodegradable / recyclable waste and 6 Kg/day E- waste will be handed over to the authorized vendors as reported.

The power required will be of 3693.75 KVA with backup power for 5 nos of 500 KVA with stack height of 55 m each from ground level. The total cost of the project is about Rs. 200 crores.

The project activity is covered in 8(a) of the Schedule and is of 'B' category. It does not require Public Consultation as per Para 7(i) III Stage (3) (d) 'Public Consultation' of EIA Notification, 2006. Based on the application made in Form-1, Form-IA, Conceptual plan, Annexure, and the additional clarifications furnished by the proponent, the SEAC in its 44th meeting conducted on 30th September, 2013 and the committee decided to recommend the proposal to SEIAA, for the grant of EC after call for certain details. The details were submitted by the proponent to SEIAA vide letter dated 03.10.2013.

The proponent also furnished a affidavit stating that,

I Chief Operating officer representin M/s IIT Madras Research Park a company registered under section 25 of Companies Act, 1956 and promoted by Indian Institute of Technology , Madras with the approval of Ministry of Human Resource Development, Government of India, having its registered office at Electrical Science Block, IIT Madras Campus Chennai – 36 Proposed to

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construct a Multi storeyed building at Kanagam Village Mambalam - Guindy Taluk

An application submitted by us seeking Environmental Clearance under the EIA Notification, 2006 is under scrutiny in the Authority. I am furnishing the following undertaking to the Authority.

For Fresh water supply

The CMWSSB has given a letter of commitment to supply 271 KLD of water required during the entire period of operation.

Based on the above commitment I /we hereby undertake and commit that required water for entire operation period will be obtained from the above Authority.

For Sewage disposal

The CMWSSB has given a letter of commitment to receive the excess treated sewage generated from the above said projects during operation periods to

Agree to discharge in to the sewer line

I am aware that I can be prosecuted under relevant Act and Rules, if I am not ensuring the adherence of the above commitment.

Commitment signed by me on 3rd day of October 2013 as an Authorised signatory of the Project Proponent before the SEIAA, Tamilnadu.

The proposal was considered by the SEIAA, Tamil Nadu vide Item No.88-06 in its meeting held on 04.10.2013 and the proposal was discussed in detail and decided to issue EC to the project.

SEIAA hereby accords Environmental Clearance to the above project under the provisions of EIA Notification dated 14th September, 2006 as

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amended, with validity for five years from the date of issue of EC, subject to the condition that and strict compliance of the terms and conditions stipulated below:

SPECIFIC CONDITIONS**Construction Phase**

- i) "Consent for Establishment" shall be obtained from the Tamil Nadu Pollution Control Board and a copy shall be submitted to the SEIAA, Tamil Nadu before taking up of any construction activity at the site.
- ii) Provision shall be made for the housing labour within the site with all necessary infrastructures and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
- iii) The height and coverage of the constructions shall be in accordance with the existing FSI/FAR norms as per Coastal Regulation Zone Notification, 2011.
- iv) 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.
- v) All required sanitary and hygienic measures should be in place before starting construction activities and they have to be maintained throughout the construction phase.
- vi) A First Aid Room shall be provided in the project site during the entire construction phase of the project.
- vii) Adequate drinking water and sanitary facilities should be provided for construction workers at the site. The safe disposal of waste water and solid wastes generated during the construction phase should be ensured.

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- viii) All the laborers to be engaged for construction should be screened for health and adequately treated before and during their employment on the work at the site.
- ix) The solid waste in the form of excavated earth excluding the top soil generated from the project activity shall be scientifically utilized for construction of approach roads and peripheral roads, as reported.
- x) All the top soil excavated during construction activities should be stored for use in horticulture/ landscape development within the project site.
- xi) Disposal of other construction debris during construction phase should not create any adverse effect on the neighboring communities and be disposed off only in approved sites, with the approval of Competent Authority with necessary precautions for general safety and health aspects of the people.
- xii) Construction spoils, including bituminous materials and other hazardous materials, must not be allowed to contaminate watercourses. The dump sites for such materials must be secured so that they should not leach into the adjacent land/ lake/ stream etc.
- xiii) Low Sulphur Diesel shall be used for operating diesel generator sets to be used during construction phase. The air and noise emission shall conform to the standards prescribed in the Rules under the Environment (Protection) Act, 1986, and the Rules framed thereon.
- xiv) 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.
- xv) Vehicles hired for bringing construction materials to the site should be in good condition and should conform to air and noise emission standards, prescribed by TNPCB/CPCB. The vehicles should be operated only during non-peak hours.

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- xvi) Ambient air and noise levels should conform to residential standards prescribed by the TNPCB, both during day and night. Incremental pollution loads on the ambient air and noise quality should be closely monitored during the construction phase.
- xvii) Fly- Ash bricks should be used as building material in the construction as per the provision of Fly ash Notification of September, 1999 and amended as on 27th August, 2003.
- xviii) Ready-mix concrete of high quality should be used in building construction and necessary cub-tests should be conducted to ascertain their quality.
- xix) Storm water control and its re-use shall be as per CGWB and BIS standards for various applications.
- xx) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices prevalent.
- xxi) Fixtures for showers, toilet flushing and drinking water should be of low flow type by adopting the use of aerators / pressure reducing devices / sensor based control.
- xxii) Use of glass shall be reduced up to 40% to reduce the electricity consumption and load on air conditioning. If necessary, high quality double glass with special reflecting coating shall be used in windows.
- xxiii) Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material, to fulfill the requirement.
- xxiv) Adequate measures to reduce air and noise pollution during construction shall be adopted, conforming to norms prescribed by the TNPCB on noise limits.
- xxv) Opaque wall should meet prescribed requirement as per Energy Conservation Building Code which is mandatory for all air conditioned

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spaces by use of appropriate thermal insulation material to fulfill the requirement.

xxvi) The Project proponent is requested to indicate the probable date of commissioning of the project supported with necessary bar charts.

xxvii) Adequate fire protection equipments and rescue arrangements should be made as per the prescribed standards.

xxviii) Proper approach road for fire-fighting vehicles and for rescue operations in the event of emergency shall be made.

xxix) Design of buildings should be in conformity with the Seismic Zone Classifications.

xxx) All ECBC norms have to be adopted.

xxxi) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects. Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to dust and take corrective measures, if needed.

xxxii) Periodical medical examination of the workers engaged in the project shall be carried out and records maintained. For the purpose, schedule of health examination of the workers should be drawn and followed accordingly. The workers shall be provided with personnel protective measures such as masks, gloves, boots etc.

Operation Phase

- i) The Proponent shall be responsible for the maintenance of greening, rain water harvesting, sewage disposal, solid waste disposal and environmental monitoring facility for entire period of operation.
- ii) The entire water requirement during operation phase shall be met from CMWSSB water supply source as committed.

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- iii) The Proponent as committed shall utilize 60 KLD of treated sewage for flushing, 10 KLD for gardening & 44 KLD utilized for HAVC throughout the period of operation as committed.
- iv) There shall be no drawl of ground water. If ground water is required it has to be drawn only after obtaining the necessary permission from CGWA.
- v) STP design should be approved by TNPCB before issue of CTE.
- vi) 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 SEIAA, TN 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 decentralized treatment should be done. Discharge of unused treated effluent shall conform to the norms and standards of the Tamil Nadu State Pollution Control Board.
Necessary measures should be made to mitigate the odour problem from STP. Explore the less power consuming systems viz. baffle reactor etc. for the treatment of sewage.
- vii) The Proponent shall install STP unit of Bar Screen Chamber, Equalization Tank, Aeration tank, Secondary settling tank, Alum doser, Clarified water tank, Pressure sand filter, Activated carbon filter, Filter press & UV treatment as committed (Capacity of 370 KLD) and operated continuously to achieve the standards prescribed by the Tamil Nadu Pollution Control Board.
- viii) The Proponent shall operate STP continuously by providing DG set in case of power failure.

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- ix) It is the sole responsibility of the proponent that the treated sewage water disposed for green belt development/ avenue plantation should not pollute the soil/ ground water/ adjacent canals/ lakes/ ponds, etc.
- x) Adequate measures should be taken to prevent odour and Mosquito breeding problem from solid waste processing plant and STP.
- xi) The Biodegradable solid waste, Non - Biodegradable solid waste, STP sludge, etc generated from the project activity shall be properly collected, segregated and disposed as committed, and as per the provision of Solid Waste (Management and Handling) Rules, 2000.
- xii) The biodegradable municipal solid waste shall be decomposed through Organic waste convertor and the manure shall be used as compost for green belt development/ avenue plantation as committed.
- xiii) The Plastic wastes shall be segregated and disposed as per the provisions of Plastic Waste (Management & Handling) Rules 2011.
- xiv) The e - waste generated should be collected and disposed to a nearby authorized e-waste centre as per e waste (Management & Handling), Rules 2011.
- xv) Diesel power generating sets proposed as source of back-up power 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. The location of the DG sets may be decided with in consultation with Tamil Nadu Pollution Control Board.
- xvi) The diesel required for operating DG sets shall be stored in underground tanks and if required, clearance from the Chief Controller of Explosives shall be taken.

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- xvii) The acoustic enclosures shall be installed at all noise generating equipments such as DG sets, air conditioning systems, etc. and the noise level shall be maintained as per MoEF/CPCB/TNPCB guidelines/norms both during day and night time.
- xviii) Spent oil from D.G sets should be stored in HDPE drums in an isolated covered facility and disposed as per the Hazardous Wastes (Management, Handling, Transboundary Movement) Rules 2008. Spent oil from D.G sets should be disposed off through registered recyclers.
- xix) The proponent shall ensure that storm water drain provided at the project site shall be maintained without choking or without causing stagnation and should also ensure that the storm water shall be properly disposed off in the natural drainage / channels without disrupting the adjacent public. Adequate harvesting of the storm water should also be ensured.
- xx) The proponent should also ensure that necessary trenches for openings shall be provided at periodic intervals along the compound wall, so as to let out the storm water during rainy season, without stagnation / ponding.
- xxi) The proponent shall ensure that roof rain water run-off collected from the covered roof of the buildings, etc shall be scientifically harvested so as to ensure the maximum beneficiation of rain water harvesting. It shall be stored in a sump of 2 nos. of 15KL capacity each and reused.
- xxii) Rain water harvesting for surface run-off, as per plan submitted should be implemented. Before recharging the surface run off, pre-treatment with screens, settlers etc. must be done to remove suspended matter, oil and grease, etc. The Proponent shall provide 10 nos. of percolation pits as committed. The percolation pits for

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rainwater recharging should be kept at least 5 mts. above the highest ground water table.

- xxiii) Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting in addition to provision for solar water heating. A hybrids system or fully solar system for a portion of the apartments shall be provided.
- xxiv) A report on the energy conservation measures conforming to energy conservation norms prescribed by the Bureau of Energy Efficiency shall be prepared incorporating details about building materials & technology; R & U factors etc and submitted to the SEIAA in three month's time.
- xxv) Energy conservation measures like installation of CFLs/TFLs for lighting the areas outside the building should be integral part of the project design and should be in place before project commissioning. Used 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.
- xxvi) Traffic congestion near the entry and exit points from the roads adjoining the proposed project site shall be avoided. Parking shall be fully internalized and no public space should be utilized. Parking plan to be as per MoEF norms.
- xxvii) A First Aid Room shall be provided during operation of the project, with necessary equipments and life- saving medicines.
- xxviii) The green belt design along the periphery of the plot shall achieve attenuation factor conforming to the day and night noise standards prescribed for residential land use. The open spaces inside the plot

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shall be suitably landscaped and covered with vegetation of suitable variety.

- xxix) Incremental pollution loads on the ambient air quality, noise and water quality shall be periodically monitored after commissioning of the project.
- xxx) No construction activity of any kind shall be taken up in the OSR area. Consent of the local body concerned should be obtained for using the secondary treated sewage in the OSR area.
- xxxi) The building should have adequate distance between them to allow free movement of fresh air and passage of natural light, air and ventilation. Landscape plan to be revised accordingly.
- xxxii) As part of the CSR activity, proponent should ensure for providing drinking water facility and sanitary arrangements for a nearby Government school for entire period of operation.

GENERAL CONDITIONS

- i) The Construction of the structures should be undertaken as per the plans approved by the concerned local authorities/local administration.
- ii) It is mandatory for the Project proponent to furnish to the SEIAA, Half yearly compliance report in Hard and Soft copies on 1st June and 1st December of each calendar year in respect of the conditions stipulated in the prior Environmental Clearance.
- iii) In the case of any change(s) in the scope of the project, a fresh appraisal by the SEAC/SEIAA shall be obtained.
- iv) A copy of the clearance letter shall be sent by the proponent to the Commissioner of Corporation/ municipalities/ executive officers of town panchayat / Block development officers of panchayat union

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whichever is applicable and the Local NGO, if any, from whom suggestions /representations, if any, have been received while processing the proposal. The clearance letter shall also be put on the website of the Proponent.

- v) The SEIAA reserves the right to add additional safeguard measures subsequently, if non-compliance of any of the EC conditions are found and to take action, including revoking of this Environmental Clearance as the case may be.
- vi) All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire and Rescue Services Department, Civil Aviation Department, Forest Conservation Act, 1980 and Wild Life (Protection) Act, 1972, State / Central Ground Water Authority, Coastal Regulatory Zone Authority, other statutory and other authorities as applicable to the project shall be obtained by project proponent from the concerned competent authorities.
- vii) The project authorities should advertise with basic details at least in two local newspaper widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of clearance and a copy of the clearance letter is available with the State Pollution Control Board and also at website of SEIAA, TN and a copy of the same should be forwarded to the Regional Office of the Ministry of Environment and Forests located at Bangalore.
- viii) Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it is found that Construction of the project has been started without obtaining Environmental Clearance, and for any other action resulting in violation of any condition stipulated in the Environmental Clearance.

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- ix) The proponent shall 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 Regional Office of MoEF, Bengaluru, the respective Zonal Office of CPCB, Bengaluru and the TNPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- x) A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- xi) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry of Environment and Forests and its Regional Office located at Bangalore. Funds for CSR activity shall be allotted and used for that purpose and separate account shall be maintained.
- xii) The Regional Office of the Ministry located at Bangalore shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information / monitoring reports.
- xiii) The project proponent shall submit six - monthly reports on the status of compliance of the stipulated environmental clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the Ministry of Environment and Forests, its Regional Office Bangalore, the respective Zonal Office of Central

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Pollution Control Board, SEIAA, TN and the State Pollution Control Board.

- xiv) The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, Bangalore by e-mail.
- xv) This Environmental Clearance does not imply that the other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would be considering the project on merits and be taking decisions independently of the Environmental Clearance.
- xvi) The SEIAA, TN may alter/modify the above conditions or stipulate any further condition in the interest of environment protection, even during the subsequent period.
- xvii) The Environmental Clearance does not absolve the applicant/proponent of his obligation/requirement to obtain other statutory and administrative clearances from other statutory and administrative authorities.
- xviii) The SEIAA, TN may cancel the environmental clearance granted to this project under the provisions of EIA Notification, 2006, if, at any stage of the validity of this environmental clearance, if it is found or if it comes to the knowledge of this SEIAA, TN that the project proponent has deliberately concealed and/or submitted false or misleading information or inadequate data for obtaining the

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environmental clearance.

- xix) Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance and attract action under the provisions of the Environment (Protection) Act, 1986.
- xx) The above conditions will be enforced inter-alia, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, the Public Liability Insurance Act, 1991, along with their amendments, draft Minor Mineral Conservation & Development Rules, 2010 framed under MMDR Act 1957, National Commission for protection of Child Right Rules, 2006 and rules made there under and also any other orders passed by the Hon'ble Supreme Court of India/Hon'ble High Court of Madras and any other Courts of Law, including the Hon'ble National Green Tribunal relating to the subject matter.
- xxi) 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.
- xxii) Any appeal against this environmental clearance shall lie with the Hon'ble National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.


MEMBER SECRETARY
SEIAA -TN

Copy to:-

1. The Principal Secretary to Government, Environment & Forests Dept,
Govt. of Tamil Nadu, Fort St. George, Chennai - 9.

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2. The Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD Cum-Office Complex, East Arjun Nagar, New Delhi 110032.
3. The Member Secretary, Tamil Nadu Pollution Control Board, 76, Mount Salai, Guindy, Chennai-600 032.
4. The CCF, Regional Office, Ministry of Environment & Forest (SZ), Kendriya Sadan, IV floor, E&F wings, 17th Main Road, Koramangala II Block, Bangalore - 560034.
5. Monitoring Cell, I A Division, Ministry of Environment & Forests, Paryavaran Bhavan, CGO Complex, New Delhi 110003.
6. Corporation Commissioner, Ripon Building, Chennai
7. Stock File



SEIAA
TN