



File No: 10537
Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), TAMIL NADU)



Dated 29/06/2024



To,

Kalidas Dattatraya Chavan
Ministry of Health & Family Welfare Dept., Govt. of India
ESIC Medical College & Hospital, Ashok Pillar Road, KK Nagar, Kodambakkam Village, CHENNAI,
TAMIL NADU, 600078
deanmc-kkn.tn@esic.nic.in

Subject: Grant of EC under the provision of the EIA Notification 2006 as amended thereof -regarding.

Sir/Madam,

This is in reference to your application for Grant of EC under the provision of the EIA Notification 2006-regarding in respect of Project Proposed Expansion of 500 beds to 1000 beds for Employees State Insurance Corporation Medical College and Hospital in Existing Building at T.S.No.7, S.F.Nos. 295 Part, 296 Part, 297 Part, 300 Part, 301 Part, 302 Part, 303 Part, 336 Part, 337 Part, 340 Part & 341 Part III of Kodambakkam Village, Mambalam – Guindy Taluk, Chennai District, Tamil Nadu by M/s. ESIC Medical College and Hospital submitted to Ministry vide proposal number SIA/TN/INFRA2/451684/2023 dated 29/04/2024.

Ref:

1. Online Proposal No. SIA/TN/INFRA2/451684/2023 dt.08.11.2023.
2. Application seeking Environmental Clearance submitted at SEIAA-TN on 16.11.2023.

2. The particulars of the proposal are as below :

(i) EC Identification No.	EC23C3804TN5766644N
(ii) File No.	10537
(iii) Clearance Type	EC
(iv) Category	B2
(v) Project/Activity Included Schedule No.	8(a) Building / Construction Expansion of 500 beds to 1000 beds for Employees State Insurance Corporation Medical College and Hospital in existing building with a total Built up area of 68,144 Sq. m
(vii) Name of Project	Ministry of Health & Family Welfare Dept., Govt. of India
(viii) Name of Company/Organization	

(ix) Location of Project (District, State)	CHENNAI, TAMIL NADU
(x) Issuing Authority	SEIAA
(xii) Applicability of General Conditions	no
(xiii) Applicability of Specific Conditions	no

3. In view of the particulars given in the Para 1 above, the project proposal interalia including Form-2(Part A and B) were submitted to SEIAA for an appraisal by the SEAC under the provision of EIA notification 2006 and its subsequent amendments.
4. The above-mentioned proposal has been considered by State Environment Impact Assessment Authority(SEIAA) Appraisal Committee of SEIAA in the meeting held on 25/06/2024. The minutes of the meeting and all the Application and documents submitted [(viz. Form-1 Part A, Part B, Part C EIA, EMP)] are available on PARIVESH portal which can be accessed by scanning the QR Code above.
5. The SEAC, based on information submitted viz: Form 1 (Part A, B) report etc., & clarifications provided by the project proponent and after detailed deliberations on all technical aspects and compliance thereto furnished by the Project Proponent, recommended the proposal for grant of Environment Clearance under the provision of EIA Notification, 2006 and as amended thereof subject to stipulation of Specific and Standard EC conditions as detailed in the point below
6. The SEIAA has examined the proposal in accordance with the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and after accepting the recommendations of the SSEAC hereby decided to grant EC for instant proposal of M/s. Kalidas Dattatraya Chavan under the provisions of EIA Notification, 2006 and as amended thereof.
7. The Ministry/SEIAA-TN reserves the right to stipulate additional conditions, if found necessary.
8. The EC to the aforementioned project is under provisions of EIA Notification, 2006. It does not tantamount to approvals/consent/permissions etc. required to be obtained under any other Act/Rule/regulation. The Project Proponent is under obligation to obtain approvals /clearances under any other Acts/ Regulations or Statutes, as applicable, to the project.
9. The PP is under obligation to implement commitments made in the Environment Management Plan, which forms part of this EC.
10. Validity of EC is for a period of 7 years from the date of issue of EC. In case the project proponent fails to complete the construction/proposed activities within the EC validity date, application for EC validity extension shall be submitted to the regulatory authority as per the provision contained in the Para 9.0 of EIA notification, 2006 and its amendment.

11. Salient features of the proposal are as follows:

S. No							
Description		Details					
1.	Name of the Project	Expansion of 500 Beds to 1000 Beds in the Existing Building for Employees State Insurance Corporation Medical College and Hospital.					
2.	Location	T.S.No.7, S.F.Nos. 295 Part, 296 Part, 297 Part, 300 Part, 301 Part, 302 Part, 303 Part, 336 Part, 337 Part, 340 Part & 341 Part III of Kodambakkam Village, Mambalam – Guindy Taluk, Chennai District, Tamil Nadu.					
3.	Type of Project	Category B2 Schedule – 8(a) - Building and Construction Projects					
4.	Total Plot Area (in sq. m)	Total Land Area – 56250.87 Sq. m					
		S. No	Components	Existing Area (Sq. m)	Proposed Area (Sq. m)	After Expansion Area (Sq. m)	Percentage (%)
		1	Plinth area	15491.63	-	15491.63	27.54

		2	Road/Paved area	10356.52	-	10356.52	18.41
		3	Greenbelt area	8437.63	-	8437.63	15.00
		4	OSR area	5625.08	-	5625.08	10.00
		5	Utility area	385.00	-	385.00	0.68
		6	Surface Parking/ Area	6606.25	-	6606.25	11.75
		7	Open area	9348.76	-	9348.76	16.62
		Total Land Area		56250.87	-	56250.87	100
5.	Built up area details	Total built-up area - 68144.68 Sq.m					
6.	Maximum height of the project	13.5 m					
7.	Maximum number of floors	G+3 floors					
8.	No. of blocks	6 Blocks					
9.	Cost of Project	Existing – Rs. 18254.40 Lakhs Proposed – Rs. 1205.22 Lakhs After Expansion – Rs. 19459.62 Lakhs					
10.	Expected Population	Existing – 1275 Nos. Proposed – 1586 Nos. After Expansion – 2861 Nos.					
11.	a) Water requirement (in KLD)	S. No	Description	Quantity (KLD)			
				Existing (As per EC)	Proposed	After Expansion	
		i	Total Water Requirement (Operational Phase)	630	483.4	1113.4	
		i)	Total Fresh water requirement	350	223.6	574	
		ii)	Total Treated Water requirement	280	259.4	539.4	
	b) Source	CMWSSB & Corporation Contractor Water Tankers					
12.	Details of Sewage generation and Treatment	STP Capacity – 700 KLD (Existing – 350KLD, Proposed – 350KLD) ETP Capacity – 40 KLD					
13.	Mode of Disposal of treated sewage/ effluent	Treated Wastewater – 539.4 KLD Flushing- 70 KLD Greenbelt Development – 31 KLD AC Cooling Tower Makeup – 393 KLD Boiler feed – 16 KLD Floor Cleaning – 29.4 KLD					
14.	Quantity of Solid Waste generation, Mode of treatment and Disposal	Description	Quantity (kg/day)		Mode of Treatment & Disposal		
			After Expansion				
		Total Solid Waste Generation	1716.6				
		Organic waste	686.64		Disposed to Municipal Corporation		
		Inorganic Waste	1029.96		TNPCB authorized recyclers		
		Biomedical Waste	1500		Collected in colour coded bins and disposed through bio-medical waste authorized vendors.		
		STP Sludge	30		Used as a manure.		
		ETP Sludge	8		Disposed to TNPCB authorized recyclers		
15.	Power Requirement	3500 kVA					
16.	Details of solar	20% of the total roof area is provided for solar panels.					

	energy										
17.	Details of D.G. set with Capacity	1 No. of 160 kVA, 1 No. of 1000 kVA & 1 No. of 2500 kVA									
18.	Details of Green Belt Area Total area of green belt i) No. of trees existing within the project site ii) No. of trees proposed to be planted iii) No. of trees to be transplanted/cut	8437.63SQ.M[15%] i) 200 Numbers ii) 1471 Numbers iii) Nil									
19.	Details of OSR Area	5625.08 Sq.m									
20.	Details of Parking Area	<table><tr><th>Description</th><th>Quantity</th></tr><tr><td>Four-Wheeler Parking</td><td>640</td></tr><tr><td>Two-Wheeler Parking</td><td>825</td></tr><tr><td>PH Parking</td><td>64</td></tr></table>	Description	Quantity	Four-Wheeler Parking	640	Two-Wheeler Parking	825	PH Parking	64	
Description	Quantity										
Four-Wheeler Parking	640										
Two-Wheeler Parking	825										
PH Parking	64										
21.	Provision for rain water harvesting	Volume of one rainwater harvesting pit is 6782.4 lit. No. of harvesting pit Provided is - 28 pits									
22.	EMP Cost (Rs.)	Capital Cost – Rs.1,00,00,000/- Recurring Cost – Rs.10,00,000/-									
23.	CER Cost	Rs.12.052 Lakhs									

12. General Instructions:

- The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of SEIAA website where it is displayed.
- The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn must display the same for 30 days from the date of receipt.
- The project proponent shall have a well laid down environmental policy duly approved by the Board of Directors (in case of Company) or competent authority, duly prescribing standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions.
- Action plan for implementing EMP and environmental conditions along with responsibility matrix of the project proponent (during construction phase) and authorized entity mandated with compliance of conditions (during operational phase) shall be prepared. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Six monthly progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Six-Monthly Compliance Report.
- Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
- The Regional Office of this SEIAA 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.
- Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.
- This issue with an approval of the Competent Authority. For information on deliberations, refer to the minutes of SEAC and SEIAA available in the PARIVESH Portal.

3.

Copy To

1. The Secretary, Ministry of Environment Forest & Climate Change, Government of India, Shastri Bhawan, New Delhi.
2. The Additional Chief Secretary to Government, Environment and Forests Department, Tamil Nadu.
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-Cum-Office Complex, East Arjun Nagar, New Delhi-110 032.
4. The Chairman, TNPC Board, 76, Mount Salai, Guindy, Chennai-32
5. El Division, Ministry of Environment & Forests, Paryavaran Bhawan, New Delhi.
6. Integrated Regional Office of MoEF&CC, Sasthri Bhawan, Nungambakkam, Chennai.
7. File Copy.

Annexure 1

Specific EC Conditions for (Building / Construction)

1. Seiaa Specific Conditions:

S. No	EC Conditions
1.1	<p>After detailed discussions, taking into account the reply furnished by the proponent, the Authority accepts the recommendation of SEAC and decided to grant Environmental Clearance subject to the conditions as recommended by SEAC & normal/standard conditions stipulated by MoEF&CC and with the Specific and Standard Conditions.</p> <p>i) The proponent shall ensure continuous operation and maintenance of STP & ETP as proposed. Logbook shall be properly maintained and shall be furnished to the regulatory & monitoring authorities as and when required.</p> <p>ii) Bio-medical wastes shall be properly disposed as per the Bio-Medical Waste Management Rules, 2016, as amended. Records for the same shall also be properly maintained and details shall be included in the Half-Yearly Compliance Report submitted to SEIAA-TN & the Ministry.</p> <p>iii) Half-Yearly Compliance Report shall be regularly submitted for the ECs obtained.</p>

2. Seiaa Standard Conditions:

S. No	EC Conditions
2.1	<p><u>Climate Change</u></p> <ol style="list-style-type: none"> 1. The proponent shall adopt strategies to decarbonize the building. 2. The proponent shall adopt strategies to reduce emissions during operation (operational phase and building materials). 3. The proponent shall adopt strategies to reduce temperature including the Building Façade. 4. The proponent shall adopt methodology to control thermal environment and other shocks in the building. 5. The proponent shall adopt detailed plan to reduce carbon footprints and also develop strategies for climate proofing and climate mitigation. 6. The proponent shall adopt strategies to ensure the buildings in blocks are not trapping heat to become local urban heat islands. 7. The proponent shall ensure that the building does not create artificial wind tunnels creating cold water and uncomfortable living conditions resulting in health issues. 8. The activities should in no way cause emission and build-up Green House Gases. All actions to

S. No	EC Conditions
	<p>be eco-friendly and support sustainable management of the natural resources within and outside the campus premises.</p> <p>The proponent shall ensure that the buildings should not cause any damage to water environment, air quality and should be carbon neutral building.</p> <p><u>Health</u></p> <p>10. The proponent shall adopt strategies to maintain the health of the inhabitants.</p> <p><u>Energy</u></p> <p>11. The proponent shall adopt strategies to reduce electricity demand and consumption.</p> <p>12. The proponent shall provide provisions for automated energy efficiency.</p> <p>13. The proponent shall provide provisions for controlled ventilation and lighting systems.</p> <p>14. The proponent shall provide solar panels and contribute to the grid from the solar panel as proposed.</p> <p>15. All the construction of Buildings shall be energy efficient and conform to the green building norms. The PP shall ensure that carbon neutral building.</p> <p>The proponent shall provide adequate capacity of DG set (standby) for the proposed STP so as to ensure continuous and efficient operation.</p> <p><u>Regulatory Frameworks</u></p> <p>17. The proponent shall adopt methodologies to effectively implement the Solid Waste Management Rules, 2016, E-Waste (Management) Rules, 2016, Plastic Waste Management Rules, 2016 as amended, Bio-Medical Waste Management Rules, 2016 as amended, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 as amended, Construction and Demolition Waste Management Rules, 2016, & Batteries (Management and Handling) Rules, 2001.</p> <p>18. The project proponent shall ensure to provide adequate elevated closed area earmarked for collection, segregation, storage & disposal of wastes generated within the premises as per provisions of Solid Waste Management Rules, 2016, E-Waste (Management) Rules, 2016, Plastic Waste Management Rules, 2016 as amended, Bio-Medical Waste Management Rules, 2016 as amended, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 as amended, Construction and Demolition Waste Management Rules, 2016, & Batteries (Management and Handling) Rules, 2001.</p> <p>19. The proponent shall provide elevator as per rules CMDA/DTCP.</p> <p><u>Database maintenance & audits</u></p> <p>20. The database record of environmental conditions of all the events from pre-construction, construction and post-construction should be maintained in digitized format.</p> <p>21. The proponent should maintain environmental audits to measure and mitigate environmental concerns.</p> <p><u>Biodiversity</u></p> <p>22. There should not be any impact due to the modification of the habitat on critically endangered species, biodiversity, etc.,</p> <p>23. The proponent shall ensure that the proposed activities in no way result in the spread of invasive species.</p> <p>24. The proponent shall adopt sustainability criteria to protect the micro environment from wind turbulences and change in aerodynamics since high rise buildings may stagnate air movements.</p> <p>25. The proponent shall ensure almost safety for the existing biodiversity, trees, flora & fauna shall not disturb under any circumstances.</p> <p>26. The proponent shall develop building-friendly pest control strategies by using non chemical measures so as to control the pest population thereby not losing beneficial organisms.</p> <p>27. The proponent shall adopt strategies to prevent bird hits.</p> <p><u>Safety measures</u></p>

S. No	EC Conditions
	<p>28. The proponent should develop an emergency response plan in addition to the disaster management plan.</p> <p>29. The proponent shall develop detailed evacuation plan for disabled people and safety evacuation plan in emergencies.</p> <p>30. All bio-safety standards, hygienic standards and safety norms of working staff and patients to be strictly followed as stipulated in EIA/EMP.</p> <p>31. The disaster management and disaster mitigation standards to be seriously adhered to avoid any calamities.</p> <p>32. The proponent shall provide the emergency exit in the buildings.</p> <p>33. The proponent shall adhere to the provision and norms regard to fire safety prescribed by competent authority.</p> <p><u>Water/Sewage</u></p> <p>34. The proponent shall ensure that no treated or untreated sewage shall be let outside the project site & shall find access to nearby water-bodies under any circumstances other than the permitted mode of disposal.</p> <p>35. The proponent shall provide STP of adequate capacity as committed and shall continuously & efficiently operate STP so as to satisfy the treated sewage discharge standards prescribed by the TNPCB time to time.</p> <p>36. The proponent shall periodically test the treated sewage the through TNPCB lab /NABL accredited laboratory and submit report to the TNPCB.</p> <p>37. The proponent shall periodically test the water sample for the general water quality core parameters including fecal coliform within the proposed project site through TNPCB lab /NABL accredited laboratory and submit report to the concerned authorities.</p> <p>38. The proponent shall ensure that provision should be given for proper utilization of recycled water.</p> <p>39. The project proponent shall adhere to storm water management plan as committed.</p> <p><u>Parking</u></p> <p>40. The project proponent shall adhere to provide adequate parking space for visitors of all inmates including clean traffic plan as committed.</p> <p><u>Solid waste Management</u></p> <p>41. The proponent shall ensure that no form of municipal solid waste shall be disposed outside the proposed project site at any time.</p> <p>42. The proponent should strictly comply with, Tamil Nadu Government order regarding ban on one time use and throwaway plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986.</p> <p><u>EMP</u></p> <p>43. The proponent shall ensure that the EIA/EMP and disaster management plan should be adhered strictly.</p> <p>44. The proponent shall ensure that all activities of EMP shall be completed before obtaining CTO from TNPCB.</p> <p>45. The proponent shall provide and ensure the green belt plan is implemented as indicated in EMP. Also, the proponent shall explore possibilities to provide sufficient grass lawns.</p> <p><u>Others</u></p> <p>46. As per the 'Polluter Pay Principle', the proponent will be held responsible for any environmental damage caused due to the proposed activity including withdrawal of EC and stoppage of work.</p> <p>47. The project proponent shall adhere to height of the buildings as committed.</p>

CONDITIONS IMPOSED BY SEAC:

1. The DEAN of M/s. ESIC Medical College & Hospitals shall furnish an affidavit stating that all the non-compliances of the earlier EC dated.01.10.2009 will be complied with and the conditions to be imposed in the proposed EC will be strictly adhered to.
2. All the existing bore wells within the project area should be closed and should not be used. No ground water should be extracted for any purpose.
3. The project proponent shall submit structural stability certificate obtained from CPWD or IIT to TNPCB before obtaining CTO.
4. The project proponent shall provide STP of capacity 700 KLD and ETP capacity of 40 KLD as committed. The treated water shall be recycled as proposed.
5. The PP shall ensure no untreated sewage /trade effluent is let-out at any time.
6. The PP shall comply with the Bio Medical Waste Management Rules 2016 as amended and the Bio medical waste generated shall be disposed through Authorised Bio medical waste Management facilities.
7. The proponent shall dispose the organic waste through local body and non-Biodegradable waste to authorized recyclers as committed.
8. The height of the stacks of DG sets shall be provided as per the CPCB norms.
9. The Existing trees available in the project site shall be retained/re planted in the periphery of the project site and no trees shall be cut down from the project site.
10. The project proponent shall obtain the necessary authorization from TNPCB and strictly follow the Hazardous & Other Wastes (Management and Transboundary Movement) Rules, 2016, as amended for the generation of Hazardous waste within the premises.
11. No waste of any type to be disposed of in any other way other than the approved one.
12. All the mitigation measures committed by the proponent for the flood management, to avoid pollution in Air, Noise, Solid waste disposal, Sewage treatment & disposal etc., shall be followed strictly.
13. The project proponent shall furnish commitment for post-COVID health management for construction workers as per ICMR and MHA or the State Government guidelines as committed for during SEAC meeting.
14. The project proponent shall provide a medical facility, possibly with a medical officer

in the project site for continuous monitoring the health of construction workers during COVID and Post - COVID period.

15. The project proponent shall measure the criteria air pollutants data (including CO) due to traffic again before getting consent to operate from TNPCB and submit a copy of the same to SEIAA.
16. That the grant of this E.C. is issued from the environmental angle only, and does not absolve the project proponent from the other statutory obligations prescribed under any other law or any other instrument in force. The sole and complete responsibility, to comply with the conditions laid down in all other laws for the time-being in force, rests with the project proponent.
17. As part of Corporate Environmental Responsibility, the proponent shall adopt Irular tribes in Oragadam village, Chengalpet and contribute towards the health and welfare of the community.

1. Statutory Compliance:

1. The project proponent shall obtain all necessary clearance/ permission from all relevant agencies including town planning authority before commencement of work. All the construction shall be done in accordance with the local building byelaws.
2. The approval of the Competent Authority shall be obtained for structural safety of buildings due to earthquakes, adequacy of firefighting equipment etc as per National Building Code including protection measures from lightning etc.
3. The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1986, in case of the diversion of forest land for non-forest purpose involved in the project.
4. The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
5. The project proponent shall obtain Consent to Establish / Operate under the provisions of Air (Prevention & Control of Pollution) Act, 1981 and the Water (Prevention & Control of Pollution) Act, 1974 from the concerned State Pollution Control Board/ Committee.
6. A certificate of adequacy of available power from the agency supplying power to the project along with the load allowed for the project should be obtained.

7. All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department and Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.
8. The provisions of the Solid Waste (Management) Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste (Management) Rules, 2016 shall be followed.
9. The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.

2. Air quality monitoring and preservation:

11. Notification GSR 94(E) dated 25.01.2018 of MoEF&CC regarding Mandatory Implementation of Dust Mitigation Measures for Construction and Demolition Activities for projects requiring Environmental Clearance shall be complied with.
12. A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
13. The project proponent shall install a system to carry out Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g., PM10 and PM25) covering upwind and downwind directions during the construction period.
14. Construction site shall be adequately barricaded before the construction begins. Dust, smoke & other air pollution prevention measures shall be provided for the building as well as the site. These measures shall include screens for the building under construction, continuous dust/ wind breaking walls all around the site (at least 3-meter height). Plastic/tarpaulin sheet covers shall be provided for vehicles bringing in sand, cement, murram and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
15. Sand, murram, loose soil, cement, stored on site should be covered adequately so as to prevent dust pollution.
16. Wet jet shall be provided for grinding and stone cutting.
17. Unpaved surfaces and loose soil should be adequately sprinkled with water to suppress dust.
18. All construction and demolition debris shall be stored at the site (and not dumped on the roads or open spaces outside) before they are properly disposed. All demolition and construction waste shall be managed as per the provisions of the Construction and Demolition Waste Rules 2016.

19. The diesel generator sets to be used during construction phase shall be low Sulphur diesel type and shall conform to Environmental (Protection) prescribed for air and noise mission standards.
20. The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
21. For indoor air quality the ventilation provisions as per National Building Code of India.

3. Water Quality Monitoring and Preservation:

1. The natural drain system should be maintained for ensuring unrestricted flow of water. No construction shall be allowed to obstruct the natural drainage through the site, on wetland and water bodies. Check dams, bio-swales, landscape, and other sustainable urban drainage systems (SUDS) are allowed for maintaining the drainage pattern and to harvest rainwater.
2. Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
3. Total freshwater use shall not exceed the proposed requirement as provided in the project details.
4. The quantity of freshwater usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with Half Yearly Compliance Reports (HYCR).
5. A certificate shall be obtained from the local body supplying water, specifying the total annual water availability with the local authority, the quantity of water already committed, the quantity of water allotted to the project under consideration and the balance water available.
6. At least 20% of the open spaces as required by the local building byelaws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
7. Installation of dual pipe plumbing for supplying fresh water for drinking, cooking and bathing etc and other for supply of recycled water for flushing, landscape irrigation car washing, thermal cooling, conditioning etc. shall be done.
8. Use of water saving devices/ fixtures (viz. low flow flushing systems; use of low flow faucets tap aerators etc) for water conservation shall be incorporated in the building plan.
9. Water demand during construction should be reduced by use of pre-mixed concrete,

curing agents and other best practices referred.

10. The local bye-law provisions on rainwater harvesting should be followed. If local byelaw provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rainwater harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
11. A rainwater harvesting plan needs to be designed where the recharge bores of minimum one recharge bore per 5,000 square meters of built-up area and storage capacity of minimum one day of total freshwater requirement shall be provided. In areas where ground water recharging is not feasible, the rainwater should be harvested and stored for reuse. The ground water shall not be withdrawn without approval from the Competent Authority.
12. All recharges should be limited to shallow aquifer.
13. No ground water shall be used during construction Operation phase of the project.
14. The quantity of freshwater usage, water recycling and rainwater harvesting shall be measured and recorded to monitor the water balance as projected by the project proponent. The record shall be submitted to the Regional Office, MoEF&CC along with Half Yearly Compliance Reports (HYCR).
15. Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing. As proposed, not related water shall be disposed into municipal drain.
16. No sewage or untreated effluent water would be discharged through storm water drains.
17. Onsite sewage treatment of capacity of treating 100% wastewater to be installed. The installation of the Sewage Treatment Plant (STP) shall be certified by an independent expert and a report in this regard shall be submitted to the Ministry before the project is commissioned for operation. Treated wastewater shall be reused on site for landscape, flushing, cooling tower, and other end-uses. Excess treated water shall be discharged as per statutory norms notified by Ministry of Environment, Forest and Climate Change. Natural treatment systems shall be promoted.
18. Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be taken to mitigate the odor problem from STP.
19. Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Centre Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

4. Noise Monitoring and Prevention:

1. Ambient noise levels shall conform to residential area/commercial area/industrial area/silence zone both during day and night as per Noise Pollution (Control and Regulation) Rules, 2000. Incremental pollution loads on the ambient air and noise quality shall be closely monitored during construction phase. Adequate measures shall be made to reduce ambient air and noise level during construction phase, so as to conform to the stipulated standards by CPCB / SPCB.
2. Noise level survey shall be carried out as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of Half Yearly Compliance Report (HYCR).
3. Acoustic enclosures for DG sets, noise barriers for ground-run bays, ear plugs for operating personnel shall be implemented as mitigation measures for noise impact due to ground sources.

5. Energy Conservation Measures:

1. Compliance with the Energy Conservation Building Code (ECBC) of Bureau of Energy Efficiency shall be ensured. Buildings in the States which have notified their own ECBC, shall comply with the State ECBC.
2. Outdoor and common area lighting shall be LED.
3. The proponent shall provide solar panels covering a minimum of 20% of terrace area as committed.
4. Concept of passive solar design that minimize energy consumption in buildings by using design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass etc. shall be incorporated in the building design. Wall, window, and roof u-values shall be as per ECBC specifications.
5. Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design and should be in place before project commissioning.
6. Solar, wind or other Renewable Energy shall be installed to meet electricity generation equivalent to 1% of the demand load or as per the state level/ local building byelaws requirement, whichever is higher.
7. Solar power shall be used for lighting in the apartment to reduce the power load on grid. Separate electric meter shall be installed for solar power. Solar water heating shall be provided to meet 20% of the hot water demand of the commercial and institutional

building or as per the requirement of the local building byelaws, whichever is higher. Residential buildings are also recommended to meet its hot water demand from solar water heaters, as far as possible.

6. Waste Management:

1. A certificate from the competent authority handling municipal solid wastes, indicating the existing civic capacities of handling and their adequacy to cater to the M.S.W. generated from project shall be obtained.
2. Disposal of muck during construction phase shall 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.
3. Separate wet and dry bins must be provided in each unit and at the ground level for facilitating segregation of waste. Solid waste shall be segregated into wet garbage and inert materials.
4. Organic waste compost/ Vermiculture pit/ Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
5. All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.
6. Any hazardous waste generated during construction phase shall be disposed of as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
7. Use of environmentally friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environmentally friendly materials.
8. Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September 1999 and amended from time to time. Ready mixed concrete must be used in building construction.
9. Any wastes from construction and demolition activities related thereto shall be managed to strictly conform to the Construction and Demolition Rules, 2016.
10. 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.

7. Green Cover:

1. No tree can be felled/transplant unless exigencies demand. Where absolutely necessary, tree felling shall be with prior permission from the concerned regulatory authority. Old trees should be retained based on girth and age regulations as may be prescribed by the Forest Department. Plantations to be ensured species (cut) to species (planted).
 2. A minimum of 1 tree for every 80 sqm of land should be planted and maintained. The existing trees will be counted for this purpose. The landscape planning should include plantation of native species. The species with heavy foliage, broad leaves and wide canopy cover are desirable. Water intensive and/or invasive species should not be used for landscaping.
 3. Where the trees need to be cut with prior permission from the concerned local authority, compensatory plantation in the ratio of 1:10 (i.e. planting of 10 trees for every 1 tree that is cut) shall be done and maintained. Plantations to be ensured species (cut) to species (planted). Area for green belt development shall be provided as per the details provided in the project document.
 4. Topsoil should be stripped to a depth of 20 cm from the areas proposed for buildings, roads, paved areas, and external services. It should be stockpiled appropriately in designated areas and reapplied during plantation of the proposed vegetation on site.
 5. A wide range of indigenous plant species should be planted as given in the Appendix-I, in consultation with the Government Forest/Horticulture Departments and State Agriculture University.
- 8. Transport:**
1. A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be prepared to include motorized, non-motorized, public, and private networks. Road should be designed with due consideration for environment, and safety of users. The road system can be designed with these basic criteria.
 - a. Hierarchy of roads with proper segregation of vehicular and pedestrian traffic.
 - b. Traffic calming measures.
 - c. Proper design of entry and exit points.
 - d. Parking norms as per local regulation.
 2. Vehicles hired to bring construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
 3. A detailed traffic management and traffic decongestion plan shall be drawn up to ensure that the current level of service of the roads within a 05 kms radius of the project is

maintained and improved upon after the implementation of the project. This plan should be based on cumulative impact of all development and increased habitation being carried out or proposed to be carried out by the project or other agencies in this 05 Kms radius of the site in different scenarios of space and time and the traffic management plan shall be duly validated and certified by the State Urban Development department and the P.W.D./ competent authority for road augmentation and shall also have their consent to the implementation of components of the plan which involve the participation of these departments.

9. Human Health Issues:

1. All workers working at the construction site and involved in loading, unloading, carriage of construction material and construction debris or working in any area with dust pollution shall be provided with dust mask.
2. For indoor air quality the ventilation provisions as per National Building Code of India.
3. Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
4. Provision shall be made for the housing of construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.
5. Occupational health surveillance of the workers shall be done on a regular basis.
6. A First Aid Room shall be provided in the project both during construction and operations of the project.

10. Corporate Environment Responsibility:

1. The PP shall complete the CER activities, as committed, before obtaining CTO.
2. The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe standard operating procedures to have proper checks and balances and to bring into focus any infringements/deviation/violation of the environmental / forest / wildlife norms / conditions. The company shall have defined system of reporting infringements / deviation / violation of the environmental / forest / wildlife norms / conditions and / or shareholders / stake holders. The copy of the board resolution in this regard shall be submitted to the MoEF&CC as a part of Half Yearly Compliance Report (HYCR).

3. A separate Environmental Cell both at the project and company head quarter level, with qualified personnel shall be set up under the control of senior Executive, who will directly to the head of the organization.
4. Action plan for implementing EMP and environmental conditions along with responsibility matrix of the company shall be prepared and shall be duly approved by competent authority. The year wise funds earmarked for environmental protection measures shall be kept in separate account and not to be diverted for any other purpose. Year wise progress of implementation of action plan shall be reported to the Ministry/Regional Office along with the Half Yearly Compliance Report (HYCR).

11. Miscellaneous:

1. The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in Tamil language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.
2. The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn must display the same for 30 days from the date of receipt.
3. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.
4. The project proponent shall submit Half Yearly Compliance Reports (HYCR) on the status of the compliance of the stipulated environmental conditions on the website of the Ministry of Environment, Forest and Climate Change at environment clearance portal.
5. The project proponent shall submit the environmental statement for each financial year in Form-V to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently and put on the website of the company.
6. The project proponent shall inform the Authority (SEIAA) of the date of financial closure and final approval of the project by the concerned authorities, commencing the land development work and start of production operation by the project.
7. The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.

8. The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also during their presentation to the State Expert Appraisal Committee.
9. No further expansion or modifications to the plant shall be carried out without prior approval of the Authority (SEIAA).
10. Concealing factual data or submission of false/fabricated data may result in revocation of this environmental clearance and attract action under the provisions of Environment (Protection) Act, 1986.
11. The Authority (SEIAA) may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
12. The Authority reserves the right to stipulate additional conditions if found necessary. The Company in a time-bound manner shall implement these conditions.
13. The Regional Office of the MoEF&CC Ministry 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.
14. The above conditions shall be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 and the Public Liability Insurance Act, 1991 along with their amendments and Rules and any other orders passed by the Hon'ble Supreme Court of India / High Courts and any other Court of Law relating to the subject matter.

Environmental Clearance is issued along with the following conditions containing four parts namely

Part - A – Common conditions applicable for Pre-construction, Construction and Operational Phases

Part - B – Specific Conditions – Pre construction phase

Part - C – Specific Conditions – Construction phase

Part - D – Specific Conditions – Operational Phase/Post constructional Phase / Entire life of the project.

Part - A – Common conditions applicable for Pre-construction, Construction and Operational Phases;

1. 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.
2. The construction of STP, ETP, Solid Waste Management facility, E-waste management facility, DG sets, etc., should be made in the earmarked area only. In any case, the location of these utilities should not be changed later on.
3. The Environmental safeguards contained in the application of the proponent /mentioned during the presentation before the State Level Environment Impact Assessment Authority / State Level Expert Appraisal Committee should be implemented in the letter and spirit.
4. 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.
5. The SEIAA reserves the right to add additional safeguard measures subsequently, if non-compliance of any of the EC conditions is found and to take action, including revoking of this Environmental Clearance as the case may be.
6. A proper record showing compliance of all the conditions of Environmental Clearance shall be maintained and made available at all the times.
7. 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. The status of compliance of environmental clearance conditions and shall also be sent to the Regional Office of the Ministry of Environment and Forests, Chennai by e-mail.
8. The Regional Office of the Ministry located at Chennai 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.

9. "Consent for Establishment" shall be obtained from the Tamil Nadu Pollution Control Board and a copy shall be submitted to the SEIAA, Tamil Nadu.
10. In the case of any change(s) in the scope of the project, a fresh appraisal by the SEAC/SEIAA shall be obtained before implementation.
11. The 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.
12. The Environmental Clearance shall not be cited for relaxing the other applicable rules to this project.
13. 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.
14. 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, Chennai, the respective Zonal Office of CPCB, Bengaluru and the TNPCB. The criteria pollutant levels namely; PM₁₀, PM_{2.5}, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored.
15. 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 Environmental Clearance.
16. The 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.

17. The SELAA, TN may alter/modify the above conditions or stipulate any further condition in the interest of environment protection, even during the subsequent period.
18. 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.
19. Where the trees need to be cut, compensation plantation in the ratio of 1:10 (i.e. planting of 10 trees for every one tree that is cut) should be done with the obligation to continue maintenance.
20. 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 and the shortfall shall be strictly reviewed and addressed.
21. The EMP cost shall be deposited in a nationalized bank by opening separate account and the head wise expenses statement shall be submitted to TNPCB with a copy to SELAA annually.
22. The Project Proponent has to provide adequate rain water harvesting pits as committed s to recover and reuse the rain water during normal rains as reported.
23. The project activity should not cause any disturbance & deterioration of the local bio diversity.
24. The project activity should not impact the water bodies. A detailed inventory of the water bodies and forest should be evaluated and fact reported to the Forest Department & PWD for monitoring.
25. All the assessed flora & fauna should be conserved and protected.
26. The proponent should strictly comply with, Tamil Nadu Government Order (Ms) No.84 Environment and forests (EC.2) Department dated 25.06.2018 regarding ban on one time use and throwaway plastics irrespective of thickness with effect from 01.01.2019 under Environment (Protection) Act, 1986.
27. Necessary permission shall be obtained from the competent authority for the drawl / outsourcing of fresh water before obtaining consent from TNPCB.
28. The proponent shall appoint an Environmental Engineer with necessary qualification for the operation and maintenance of STP (Sewage Treatment Plant) and GWTP (grey water Treatment Plant)
29. The Proponent shall provide the dispenser for the disposal of Sanitary Napkins.
30. All the mitigation measures committed by the proponent for the flood management,

Solid waste disposal, Sewage treatment & disposal etc., shall be followed strictly.

31. No waste of any type to be disposed of in any watercourse including drains, canals and the surrounding environment.
32. Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided.
33. The safety measures proposed in the report should be strictly followed.

Part - B – Specific Conditions – Pre construction phase:

1. **The project authorities should advertise with basic details at least in two local newspapers widely circulated, one of which shall be in the vernacular language of the locality concerned, within 7 days of the issue of clearance. The press releases also mention that a copy of the clearance letter is available with the State Pollution Control Board and also at website of SEIAA, TN. The copy of the press release should be forwarded to the Regional Office of the Ministry of Environment and Forests located at Chennai and SEIAA-TN.**
2. In the case of any change(s) in the scope of the project, a fresh appraisal by the SEAC/SEIAA shall be obtained before implementation.
3. **A copy of the clearance letter shall be sent by the proponent to the Local Body. The clearance letter shall also be put on the website of the Proponent.**
4. The approval of the competent authority shall be obtained for structural safety of the buildings during earthquake, adequacy of firefighting equipments, etc. as per National Building Code including protection measures from lightning etc. before commencement of the work.
5. All required sanitary and hygienic measures for the workers should be in place before starting construction activities and they have to be maintained throughout the construction phase.
6. Design of buildings should be in conformity with the Seismic Zone Classifications.
7. The Construction of the structures should be undertaken as per the plans approved by the concerned local authorities/local administration.
8. No construction activity of any kind shall be taken up in the OSR area.
9. Consent of the local body concerned should be obtained for using the treated sewage in the OSR area for gardening purpose. The quality of treated sewage shall satisfy the bathing quality prescribed by the CPCB.

10. The height and coverage of the constructions shall be in accordance with the existing FSI/FAR norms as per Coastal Regulation Zone Notification, 2011.
11. The Project Proponent shall provide car parking exclusively for the visiting guest in the proposed residential apartments as per CMDA norms.
12. The project proponent shall ensure the entry of basement shall be above maximum flood level.
13. The proponent shall prepare completion plans showing Separate pipelines marked with different colours with the following details
 - i. Location of STP, compost system, underground sewer line.
 - ii. Pipe Line conveying the treated effluent for green belt development.
 - iii. Pipe Line conveying the treated effluent for toilet flushing
 - iv. Water supply pipeline
 - v. Gas supply pipe line, if proposed
 - vi. Telephone cable
 - vii. Power cable
 - viii. Storm water drains, and
 - ix. Rain water harvesting system, etc. and it shall be made available to the owners
14. A First Aid Room shall be provided in the project site during the entire construction and operation phases of the project.
15. The present land use surrounding the project site shall not be disturbed at any point of time.
16. The green belt area shall be planted with indigenous native trees.
17. Natural vegetation listed particularly the trees shall not be removed during the construction/operation phase. In case any trees are likely to be disturbed, shall be replanted.
18. During the construction and operation phase, there should be no disturbance to the aquatic eco-system within and outside the area.
19. The Provisions of Forest conservation Act 1980, Wild Life Protection Act 1972 & Bio diversity Act 2002 should not be violated.
20. There should be Firefighting plan and all required safety plan.
21. Regular fire drills should be held to create awareness among owners/ residents.

Part - C - Specific Conditions – Construction phase:

1. Construction Schedule:

- i) The Project proponent shall have to furnish the probable date of commissioning of the project supported with necessary bar charts to SEIAA-TN.

2. Labour Welfare:

- i) 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.
- ii) 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 contradictions due to exposure to dust and take corrective measures, if needed.
- iii) 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.

3. Water Supply:

- i) The entire water requirement during construction phase may be met from private tankers
- 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) Adequate drinking water and sanitary facilities should be provided for construction workers at the site. The treatment and disposal of waste water shall be through dispersion trench after treatment through septic tank. The MSW generated shall be disposed through Local Body and the identified dumpsite only.
- iv) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices prevalent.

- v) 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.

4. Solid Waste Management:

- i) In the solid waste management plan, the STP sludge management plan for direct use as manure for gardens is not acceptable; it must be co-composted with biodegradables.
- ii) Hazardous waste such as batteries, small electronics, CFL bulbs, expired medicines and used cleaning solvent bottles should be segregated at source, collected once in a month from residences and disposed as per the SWM Rules 2016.
- iii) Domestic solid wastes to be regularly collected in bins or waste handling receptacles and disposed as per the solid waste management rules 2016.
- iv) No waste of any type to be disposed of in any watercourse including drains, canals and the surrounding environment.
- v) E-waste shall be disposed through Authorized vendor as per E-waste (Management and Handling) Rules, 2016 and subsequent amendment.

5. Top Soil Management:

- i) All the top soil excavated during construction activities should be stored for use in horticulture/ landscape development within the project site.

6. Construction Debris disposal:

- i) Disposal of 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. The construction and demolition waste shall be managed as per Construction & Demolition Waste Management Rules, 2016.
- ii) 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.

7. Diesel Generator sets:

- i) 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.
- ii) The diesel required for operating stand by DG sets shall be stored in barrels fulfilling the safety norms and if required, clearance from Chief Controller of Explosives shall be taken.
- iii) The acoustic enclosures shall be installed at all noise generating equipments such as DG sets, air conditioning systems, cooling water tower etc.

8. Air & Noise Pollution Control:

- i) 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.
- ii) 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. The pollution abatement measures shall be strictly implemented.
- iii) 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 CMDA norms. The traffic department shall be consulted and any cost effective traffic regulative facility shall be met before commissioning.
- iv) The buildings should have adequate distance between them to allow free movement of fresh air and passage of natural light, air and ventilation.
- v) The project proponent should ensure that adequate Air Pollution Control measures shall be provided from buses and other vehicles, which will be entering the bus terminal. Further, water sprinkling system shall be provided and same shall be used at regular interval to control the dust emission within the project site.

9. Building material:

- i) Fly-ash blocks 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 and Notification No. S.O. 2807 (E) dated: 03.11.2009.
- ii) Ready-mix concrete shall alone be used in building construction and necessary cube-tests should be conducted to ascertain their quality.
- iii) 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.

10. Storm Water Drainage:

- i) Storm water management around the site and on site shall be established by following the guidelines laid down by the storm water manual.
- ii) Storm water management plan shall be obtained by engaging the services of Anna University/IIT.

11. Energy Conservation Measures:

- i) Roof should meet prescriptive requirement as per Energy Conservation Building Code by using appropriate thermal insulation material, to fulfill the requirement.
- ii) Opaque wall should meet prescribed requirement as per Energy Conservation Building Code which is mandatory for all air conditioned spaces by use of appropriate thermal insulation material to fulfill the requirement.
- iii) All norms of Energy Conservation Building Code (ECBC) and National Building Code, 2005 as energy conservation have to be adopted Solar lights shall be provided for illumination of common areas.
- iv) Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting. A hybrids system or fully solar system for a portion of the apartments shall be provided.
- v) 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.
- vi) 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.

12. Fire Safety:

- i) Adequate fire protection equipments and rescue arrangements should be made as per the prescribed standards.
- ii) Proper and free approach road for fire-fighting vehicles upto the buildings and for rescue operations in the event of emergency shall be made.

13. Green Belt Development:

- i) The Project Proponent shall plant tree species with large potential for carbon capture in the proposed green belt area based on the recommendation of the Forest department well before the project is completed.
- ii) The proponent has to earmark the greenbelt area with dimension and GPS coordinates for the green belt area all along the boundary of the project site with at least 3 meter wide and the same shall be included in the layout out plan to be submitted for CMDA/DTCP approval.
- iii) The proponent shall develop the green belt as per the plan furnished and area earmarked for the greenbelt shall not be alter at any point of time for any other purpose.

14. Sewage Treatment Plant:

- i) The Sewage Treatment Plant (STP) installed should be certified by an independent expert/ reputed Academic institutions for its adequacy and a report in this regard should be submitted to the SEIAA, TN before the project is commissioned for operation. Explore the less power consuming systems viz baffle reactor, etc., for the treatment of sewage.
- ii) The Proponent shall install STP as furnished. Any alteration to satisfy the bathing quality shall be informed to SEIAA-TN.
- iii) The project proponent shall operate and maintain the Sewage treatment Plant and Effluent treatment plant effectively to meet out the standards prescribed by the CPCB.
- iv) The project proponent shall continuously operate and maintain the Sewage treatment plant and Effluent treatment plant to achieve the standards prescribed by the CPCB.
- v) The project proponent has to ensure the complete recycling of treated Sewage & Effluent water after achieving the standards prescribed by the CPCB.

- vi) The project proponent has to provide separate standby D.G set for the STP/GWTP for the continuous operation of the STP/GWTP in case of power failure.

15. Rain Water Harvesting:

- i) The proponent shall ensure that roof rain water collected from the covered roof of the buildings, etc shall be harvested so as to ensure the maximum beneficiation of rain water harvesting by constructing adequate sumps so that 100% of the harvested water shall be reused.
- ii) 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.
- iii) The Project Proponent has to provide adequate rain water harvesting pits as committed to recover and reuse the rain water during normal rains as reported.
- i) The project activity should not cause any disturbance & deterioration of the local bio diversity.

16. Building Safety:

Lightning arrester shall be properly designed and installed at top of the building and where ever is necessary.

Part – D - Specific Conditions – Operational Phase/Post constructional phase/Entire life of the project:

- 1. There should be Firefighting plan and all required safety plan.
- 2. Regular fire drills should be held to create awareness among owners/ residents.
- 3. Hazardous waste such as batteries, small electronics, CFL bulbs, expired medicines and used cleaning solvent bottles should be segregated at source, collected once in a month from residences and disposed as per the SWM Rules 2016.
- 4. The building should not spoil the green views and aesthetics of surroundings and should provide enough clean air space.
- 5. Solar energy saving shall be increased to atleast 10% of total energy utilization.
- 6. The Project proponent has to spend the CER as committed in the affidavit. The above activity shall be carried out before obtaining CTO from TNPCB.
- 7. The EMP cost shall be deposited in a nationalized bank by opening separate account and the head wise expenses statement shall be submitted to TNPCB with a copy to SEIAA annually

8. The EMP cost shall be printed in the Brochure / Pamphlet for the preparation of the sale of the property and should also mention the component involved.
9. The Project proponent shall get due permission from the wetland Authority before the commencement of the work, if applicable.
10. The Project proponent should discuss with the wet land Authority, Tamil Nadu Forest Department, PWD and support lake restoration cum improvement, awareness and conservation programs.
11. The project activities should in no way disturb the manmade structures.
12. The Proponent shall do afforestation/ restoration programme contemplated to strengthen the open spaces shall preferably include native species along with the financial forecast for planting and maintenance for 5 years.
13. "Consent to Operate" should be obtained from the Tamil Nadu pollution Control Board before the start of the operation of the project and copy shall be submitted to the SEIAA-TN.
14. Raw water quality to be checked for portability and if necessary RO plant shall be provided.
15. The Proponent should be responsible for the maintenance of common facilities including greening, rain water harvesting, sewage treatment and disposal, solid waste disposal and environmental monitoring including terrace gardening for a period of 3 years. Within one year after handing over the flats to all allottees a viable society or an association among the allottees shall be formed to take responsibility of continuous maintenance of all facilities with required agreements for compliance of all conditions furnished in Environment Clearance (EC) order issued by the SEIAA-TN or the Proponent himself shall maintain all the above facilities for the entire period. The copy of MOU between the buyers Association and proponent shall be communicated to SEIAA-TN.
16. The ground water level and its quality should be monitored and recorded regularly in consultation with Ground Water Authority.
17. Treated effluent emanating from STP shall be recycled / reused to the maximum extent possible. The treated sewage shall conform to the norms and standards for bathing quality laid down by CPCB irrespective of any use. Necessary measures should be made to mitigate the odour and mosquito problem from STP.
18. The Proponent shall operate STP continuously by providing stand by DG set in case of power failure.

19. 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
20. Adequate measures should be taken to prevent odour emanating from solid waste processing plant and STP.
21. The e - waste generated should be collected and disposed to a nearby authorized e-waste centre as per E- waste (Management & Handling), Rules 2016 as amended.
22. 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.
23. The noise level shall be maintained as per MoEF/CPCB/TNPCB guidelines/norms both during day and night time.
24. Spent oil from D.G sets should be stored in HDPE drums in an isolated covered facility and disposed as per the Hazardous & other Wastes (Management & Transboundary Movement) Rules 2016. Spent oil from D.G sets should be disposed off through registered recyclers.
25. The proponent is required to provide a house hold hazardous waste / E-waste collection and disposal mechanism.
26. 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.
27. 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.
28. 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.
29. The Environmental Clearance is issued based on the documents furnished by the project proponent. In case any documents found to be incorrect/not in order at a later date the Environmental Clearance issued to the project will be deemed to be revoked/ cancelled.

30. AFFIDAVIT FURNISHED BY THE PROPONENT

31. I Kalidas Dattatraya Chavan the Dean, M/s. ESIC Medical College and Hospital, KK Nagar Chennai-78. We have submitted the EC application for “Expansion of 500 beds to 1000 beds for Employees State Insurance Corporation Medical College and Hospital in existing building with a total Built up area of 68,144.68 Sq.m”, located at TS. No.7, SF. No. 295 Part & 296 Part, 297 Part, 300 Part, 301 Part, 302 Part, 303 Part, 336 Part, 337 Part, 340 Part and 341 Part III, Kodambakkam Village, Mambalam - Guindy Taluk, Chennai District, Tamil Nadu.
32. An application submitted by us seeking Environmental Clearance under the EIA Notification, 2006 is under scrutiny in the Authority with the File no – 10537 (Proposal No. SIA/TN/INFRA2/451684/2023)
33. I am furnishing the following undertaking to the Authority, hereby solemnly affirm and state as follows: -
34. We commit to SEIAA that the total water requirement is 1113.4 KLD. The required water will be outsourced through CMWSSB/ Corporation Contractor water tankers.
35. We commit to SEIAA that the Total quantity of sewage generated from the proposed project is 549 KLD, which will be treated in the STP with the capacity of 350 KLD (2no's) and Trade effluent generation from the proposed project is 39 KLD which will be treated in the ETP with the capacity of 40 KLD, out of which 540 KLD of treated sewage will be generated. From the recycled water 70 KLD will be used for Flushing, 31 KLD will be used for green belt development, 393 KLD will be used for AC Cooling Tower Makeup, 30 KLD treated water will be used for floor cleaning and remaining 16 KLD treated water will be used for Boiler Feed.
36. We commit to SEIAA that the Total Municipal Solid waste generated from the development will be 1716.6 Kg/day from Which Biodegradable waste of 686.64 Kg/day waste will be sent to Municipality/ corporation and Non-Biodegradable Waste of 1029.96 Kg/day Will Sent to TNPCB authorized recyclers.
37. We commit to SEIAA that the Biomedical waste of 1500 kg will be generated from the development which will be Collected in colour coded bins and disposed through Bio-medical waste authorized vendors.
38. We have allocated the CER fund of **Rs.12.052 Lakhs** will be utilized for the following activities. Hereby undertake and confirm to carry out the corporate environmental responsibility as follows, This fund will be spent to the neighborhood villages on

Environmental Sustainability activities and as per the recommendation prescribed by
State Level Expert Appraisal committee.

S. No.	Activities	Proposed Budget (INR)
1.	Medical Camp for Tribal Peoples near Poonamalle Villages	8,00,000
2.	Swachhata Hi Seva near KK Nagar	2,05,200
3.	Plantation in surrounding areas near KK Nagar	2,00,000
Total Cost		12,05,200/-

39. The capital cost of Rs. 12.05 Lakhs towards CER activities will be spent before
applying for CTO from TNPCB.

40. The cost of Environmental Management plan (EMP) is Rs.100 lakhs, as mentioned
below:

41. Environmental Management Plan Cost

S. No.	Description	Existing		Proposed		After Expansion	
		Capital Cost (INR.)	Recurring Cost (INR.)	Capital Cost (INR.)	Recurring Cost (INR.)	Capital Cost (INR.)	Recurring Cost (INR.)
1	Sewage Treatment Plant	10,00,000	1,00,000	20,00,000	2,00,000	30,00,000	3,00,000
2	Effluent Treatment Plant	-	-	25,00,000	2,50,000	25,00,000	2,50,000
3	Landscaping & Gardening	5,00,000	50,000	10,00,000	1,00,000	15,00,000	1,50,000
4	Air pollution Control measures (DG Stack)	20,50,000	2,05,000	-	-	20,50,000	2,05,000

5	Rainwater harvesting	-	-	9,45,000	95,000	9,45,000	95,000
Total		35,50,000	3,55,000	64,50,000	6,45,000	1,00,00,000	10,00,000

42. Note: There is no Construction Phase in this project.

43. Environmental Monitoring Plan Cost- Operation Phase

S. No	Item	Parameters	Frequency	Unit cost (Rs.)	Samples / Year	Cost /Year (Rs)
1	Air Quality	PM10, PM2.5, SO2 & NOx	Quarterly	3000	8	24000
2	Noise Level	Equivalent Noise Level	Quarterly	500	8	4000
3	Exhaust from DG sets	SPM, SO2	Quarterly	3500	24	84000
4	Ground Water Analysis	Physical, Chemical and Bacteriological	Quarterly	3500	8	28000
5	Surface Water Analysis	Physical, Chemical and Bacteriological	Quarterly	3500	8	28000
6	Wastewater analysis	pH, BOD, COD, TSS, TDS	Monthly	1800	24	43200
7	Soil Quality	General parameters	Quarterly	5000	8	40000
8	Compost Quality	Nutrients, moisture, Ash, pathogens, Heavy metals	Monthly	15000	12	180000
Total						431200

44.44.

45. We assure that we are liable for the operation and maintenance of STP & ETP for 10 Years from the date of operation of the project.

46. We also assure that the storm water drain would not carry any untreated or treated sewage.

47. We also assure that our project site does not encroach any water bodies such as rivers, canals, nallas, lakes, ponds, tanks, etc., from its original boundary.

48. The proposed construction will conform with IGBC Platinum/Gold norms and IGBC certification will be obtained before CTO (if viable & applicable).

49. Provision of hot water will be met from Solar Water Heaters.

50. 50% of the roof coverage should be specifically allocated for solar panels and should be used for the generation of solar energy.
51. We also assure that the storm water drain would not carry any untreated or treated sewage.
52. We assure that the pavements/parking pavements will be green/permeable pavements.
53. We assure that the CER activities will be completed as per the action plan submitted.
54. We also assure that no litigations are pending against the project.
55. I am aware that I can be prosecuted under relevant Act and Rules if I am not ensuring the adherence of the above commitment.
56. We assure that hereafter we will not use bore wells for our daily usage, that should be completely vanished from our end.
57. We assure that we will plant the flowering plants within the premises of the hospital campus.
58. We assure that all the non-complied points in the Certified EC Compliance report should be addressed in present EC and reported to the SEAC Committee.
59. Commitment signed by me as an Authorized signatory of the Project Proponent before the SEIAA, Tamil Nadu.

20.

2024

Signature valid

Digitally Signed by : A/R Rahul Nadh IAS
Member Secretary, SEAA

Date: 29/06/2024

