



SIPCOT

EC/Sivagangai/HYC/June/2025

Date: 30.05.2025

To,
The Member Secretary,
State Level Environment Impact Assessment Authority,
Chennai Metro Rail Limited (Head office),
No.327, Anna Salai, Nandanam,
Chennai - 600 035.

Sir,

Sub: SIPCOT Industrial Park, Sivagangai – Submission of Half Yearly Compliance Report for June 2025 (for the period from October 2024 to March 2025) - Reg.

Ref: EC Identification No: EC24B3813TN5221284N dt. 12.01.2025

We hereby submit the Half Yearly Compliance Report for the Development of Industrial Park at Illupaikudi, Kilathari and Arasanoor Village, Sivagangai Taluk, Sivagangai District, Tamil Nadu for June 2025 (for the period from October 2024 to March 2025) along with the supporting documents for your perusal.

Thanking you

Yours faithfully,

CONSULTANT (PROJECT MANAGEMENT)

Encl: As above.

Copy to:

1. The Director,
The Ministry of Environment and Forest & Climate Change,
Integrated Regional Office,
1st Floor, Additional Office Block for GPOA,
Shastri Bhawan, Haddows Road,
Nungambakkam, Chennai – 600 006.
2. The Director,
CPCB Zonal Office,
77-A, South Avenue Road,
Ambattur Industrial Estate,
Ambattur Taluk, Thiruvallur District,
Chennai - 600 058.

P.T.O.

State Industries Promotion Corporation of Tamil Nadu Limited

(A Government of Tamil Nadu Undertaking)

CIN I U74999TN1971SGC005967

Regd. Office : 19-A, Rukmani Lakshmipathy Road, Post Box No. 7223, Egmore, Chennai - 600 008.

Phone : 4526 1777, Fax : 4526 1796 Website : www.sipcot.tn.gov.in

3. The Chairman,
Tamil Nadu Pollution Control Board,
No-76, Mount Road, Guindy,
Chennai-600 032.
4. The Project Officer
SIPCOT Industrial Park,
Sivagangai.

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HALF YEARLY ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT

For the Period of October 2024 – March 2025

For

“Development of Industrial Park”

At

Illupaikudi, Kilathari and Arasanoor Village of Sivagangai Taluk,

Sivagangai District, Tamil Nadu

EC Identification no : EC24B3813TN5221284 dt.12.01.2025

Submitted by

M/s STATE INDUSTRIES CORPORATION OF TAMILNADU LIMITED

19/A,Rukmanilakshmipathy road,

Egmore, Chennai – 600008



Prepared by

HECS[®]

HUBERT ENVIROCARE SYSTEMS (P) LTD

CHENNAI

(ENVIRONMENTAL CONSULTANT)

MAY 2025

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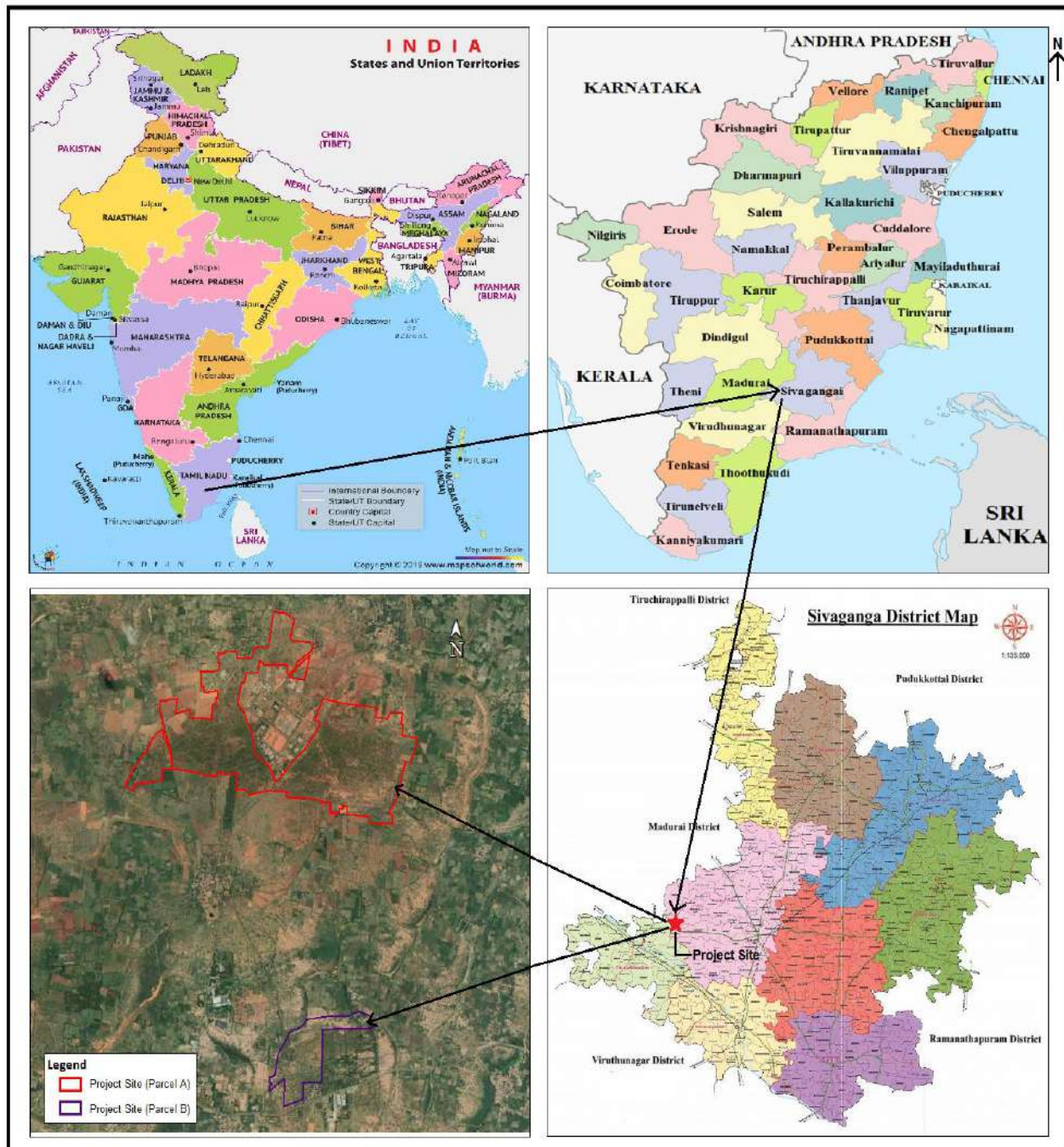
LIST OF ANNEXURE

S.No	ANNEXURE
Annexure 1	EC copy
Annexure 2	SIPCOT environmental policy
Annexure 3	Water supply request letter to TWAD
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Annexure 5	CTE application copy
Annexure 6	Details of Environmental Management Cell
Annexure 7	Newspaper advertisement copy
Annexure 8	EC local body submission proof
Annexure 9	Environmental monitoring report
Annexure 10	Environmental monitoring Photographs

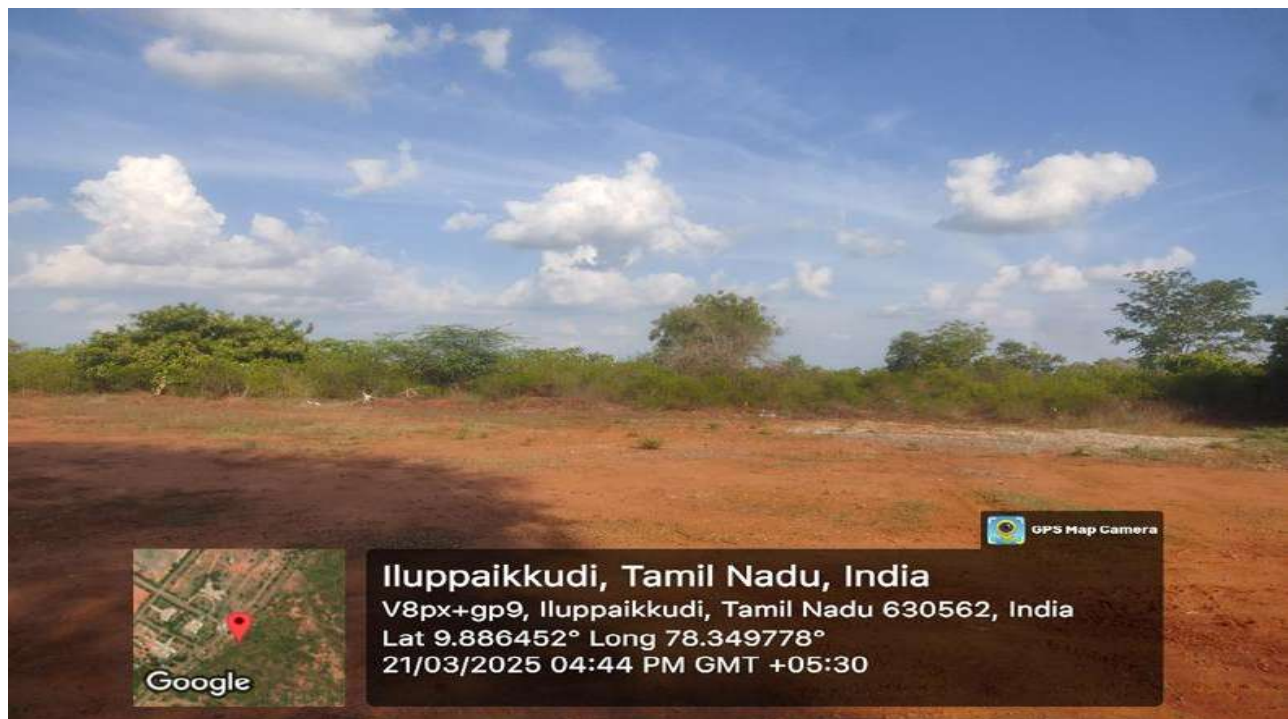
1. PROJECT DETAILS

Name of the Project	Development of Industrial Park at Illupaikudi, Kilathari and Arasanoor Villages of Sivagangai Taluk, Sivagangai district, in an area of 314.07Ha (775.75Acres)”
Name of the Proponent	M/s. State Industries Promotion Corporation of Tamil Nadu Limited (SIPCOT)
Location	Illupaikudi, Kilathari and Arasanoor Village of Sivagangai Taluk, Sivagangai District, Tamil Nadu
EC. No.	EC24B3813TN5221284N dated: 12.01.2025 (Enclosed as Annexure -1)
Area Details	314.07Ha
Water Requirement	7098KLD Fresh water Requirement: 1074 KLD, TTRO water Requirement: 2338 KLD
Project Cost	Rs. 342.86 Crores.

2. SITE LOCATION MAP



3.0 SITE PHOTOGRAPHS



3. SIX MONTHLY ENVIRONMENTAL CLEARANCE COMPLIANCE STATEMENT

General Instructions		
S.NO	EC Conditions	Status of Compliance
(i)	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.	Condition complied. Newspaper Advertisement has been published in two local newspapers in tamil and English that we have obtained Environmental clearance from SEIAA /TN. News paper advertisement is enclosed as Annexure - 7
(ii)	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.	Condition complied. A copy of the environmental clearance has been submitted to the Heads of local bodies, Same is enclosed as Annexure – 8.
(iii)	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.	SIPCOT have a well laid environmental policy duly approved by the Board of Directors of SIPCOT Copy of Same is provided to the Member industries to Avoid any infringements /deviation/ violation of the environmental / forest / wildlife norms / conditions. Copy of environmental policy is enclosed as Annexure - 2
(iv)	Action plan for implementing EMP and environmental conditions along with	Condition noted

	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.	
(v)	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.	Condition noted.
	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.	Condition noted.
(vi)	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.	Condition noted. There is no appeal against this EC.

Specific EC Conditions for (Townships/ Area Development Projects / Rehabilitation Centres)

1. SEIAA Specific Conditions:

1.1	i)	The PP shall obtain all the land survey numbers indicated in the project proposal and should submit the comprehensive area details before obtaining CTE from TNPCB.	Condition noted. .
	ii)	The PP shall increase the tree cover area to a minimum of 33% in the SIPCOT premises and should also ensure the same for the upcoming individual industries inside the SIPCOT.	Condition will be complied.
	iii)	The PP should obtain the fresh water supply commitment letter from the Tamil Nadu Water Supply and Drainage (TWAD) Board / Municipal Administration and Water Supply Department before obtaining CTE from TNPCB and shall submit the copy of the same to SEIAA.	Water supply request letter to TWAD & TNUIFSL is enclosed as Annexure – 3 & 4
	iv)	The PP, SIPCOT should plan a comprehensive ETP based on the upcoming industries and the details of the same should be furnished to TNPCB and in the Six-monthly compliance report to SEIAA-TN.	Condition noted. All the member units will be mandated to follow all applicable rules and guidelines.
	v)	The solid waste and e-waste should be disposed strictly adhering to the Solid waste management rules, 2016 and E-waste management rules, 2016 respectively.	Condition noted. All the member units will be mandated to follow Solid waste management rules 2016, and E-waste management rules, 2016
	vi)	The PP should ensure that the activities inside the SIPCOT should not result in the	Condition noted.

		disruption of agriculture activities, animal husbandry, horticulture, livelihood, soil erosion and drainage pattern in the vicinity of the area.	
	vii)	Since, the proposed project has two parcels namely Parcel A and Parcel B, the PP should ensure that adequate number of trees are planted along the roads connecting these two parcels.	Condition will be complied.
	viii)	The PP should provide separate STP, ETP and other needed provisions for the proposed parcels A and B allowing them to function independently.	Condition complied. SIPCOT will provide STP only for Industrial Housing Facility. Each individual industry is responsible for establishing its own STP.
	ix)	Green engineering of building design should be adopted.	Condition noted.
	x)	Cool roofs should be provided to curtail heat absorption.	Condition noted.

2. Seiaa Standard Conditions:

		Climate Change	
2.1	1.	The proponent shall adopt strategies to decarbonize the building, reduce carbon footprints and develop strategies for climate proofing and mitigation.	Condition noted.
	2.	The proponent shall adopt strategies to reduce carbon & GHG emissions during operation (operational phase and building materials).	Condition noted.
	3.	The proponent shall adopt methodology to control thermal environment and other	Condition noted.

	shocks in the building.	
4.	The proponent shall adopt strategies to ensure the buildings in blocks are not trapping heat to become local urban heat islands.	Condition noted.
5.	The proponent shall ensure that the building does not create artificial wind tunnels creating cold water and uncomfortable living conditions resulting in health issues.	Condition noted.
6.	The activities should in no way cause emission and build-up Green House Gases. All actions to be eco-friendly and support sustainable management of the natural resources within and outside the campus premises.	Condition noted.
7.	The proponent shall ensure that the buildings does not cause any damage to water environment, air quality and should be carbon neutral building.	Condition noted.
Health		
8.	The proponent shall adopt strategies to maintain the health of the inhabitants within and in the vicinity.	Condition noted.
Energy		
9.	The proponent shall adopt strategies to reduce electricity demand and consumption.	Condition noted.
10.	The proponent shall provide provisions for automated energy efficiency.	Condition noted.
11.	The proponent shall provide provisions for controlled ventilation and lighting systems.	Condition will be complied.
12.	The proponent shall provide adequate	Condition noted

	capacity of DG set (standby) for the proposed STP so as to ensure continuous and efficient operation.	
Regulatory Frameworks		
13.	The proponent shall effectively implement and strictly adhere to 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 Trans boundary Movement) Rules, 2016 as amended, Construction and Demolition Waste Management Rules, 2016, & Batteries (Management and Handling) Rules, 2001.	Condition noted. All the member units will be mandated to follow all applicable rules and guidelines.
14.	The proponent shall provide elevator as per rules CMDA/DTCP.	Not applicable. It is an infrastructure development project that includes the construction of roads, storm water drainage systems, street lighting, water supply systems, development of green spaces, etc.
Database maintenance & audits		
15.	The database record of environmental conditions of all the events from pre-construction, construction and post-construction should be maintained in digitized format.	Condition will be complied.
16.	The proponent should maintain environmental audits to measure and mitigate environmental concerns.	Condition will be complied.

Biodiversity		
17.	The proponent shall ensure that the proposed activities in no way result in the spread of invasive species.	Condition noted
18.	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.	Not applicable. It is an infrastructure development project involving the construction of roads, storm water drains, street lighting, greenbelt development, and related works.
19.	The proponent shall ensure utmost safety for the existing biodiversity, trees, flora & fauna and the critically endangered species & endangered species shall not disturb under any circumstances.	Condition will be complied.
20.	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.	Condition noted
21.	The proponent shall adopt strategies to prevent birds getting hit by the high buildings.	Not applicable. It is an infrastructure development project involving the construction of roads, storm water drains, street lighting, greenbelt development, and related works.
Safety measures		
22.	The proponent should develop an emergency response plan & safety evacuation plan (including disabled people) in addition to the disaster management plan.	Condition noted. All member units will have their own onsite emergency Plan
23.	All bio-safety standards, hygienic standards and safety norms of working staff to be	Condition will be complied.

	strictly followed as stipulated in EIA/EMP.	
24.	The disaster management/disaster mitigation standards & fire safety standards as prescribed by competent authorities.	Condition will be complied.
25.	The proponent shall provide emergency exit in the buildings.	Not applicable. It is an infrastructure development project involving the construction of roads, storm water drains, street lighting, greenbelt development, and related works.
Water/Sewage		
26.	The proponent shall ensure that no untreated sewage is let outside the project site under any circumstances. Further, the treated water shall not be disposed off through any other means other than the permitted mode of disposal.	Condition noted. SIPCOT proposed STP only for industrial housing and treated sewage will be utilised in Green belt area. SIPCOT will not propose any CSTP/CETP. The treated water will not be disposed off through any other means other than the permitted mode of disposal.
27.	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.	Condition noted. SIPCOT proposed STP only for industrial housing and treated sewage will be utilised in Green belt area. SIPCOT will not propose any CSTP/CETP.
28.	The proponent shall periodically test the treated sewage through TNPCB lab /NABL accredited laboratory and submit report to the TNPCB & IRO of MoEF&CC.	Condition noted. SIPCOT proposed STP only for industrial housing. Regular samples will be collected in TNPCB lab / NABL accredited laboratory and ROA will be submitted to the TNPCB & IRO of MoEF&CC along with HYC report .

		SIPCOT will not propose any CSTP/CETP.
29.	The proponent shall ensure that provision should be given for proper utilization of recycled water.	Condition noted. All the member units will be mandated to have STP/ETP for treatment of sewage/effluent and to reuse the treated water within their premises
30.	The project proponent adhere to storm water management plan as committed.	Condition will be complied.
Parking		
31.	The project proponent shall provide adequate parking space for visitors of all inmates including clean traffic plan as committed.	Condition will be complied with. SIPCOT will develop a designated truck parking facility within the industrial park. In addition, individual industries will provide adequate parking spaces within their premises to accommodate visitors.
Solid waste Management		
32.	The proponent shall ensure that no form of municipal solid waste shall be disposed outside the proposed project site at any time.	Condition noted. All the member units will be mandated to follow all applicable rules and guidelines.
33.	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.	Condition noted. All the member units will be mandated to follow all applicable rules and guidelines.
EMP		
34.	The proponent shall strictly adhere to the EIA/EMP report.	Condition noted.
35.	The proponent shall ensure that the green	Condition will be complied.

		belt plan is implemented as indicated in EMP. Also, the proponent shall explore possibilities to provide sufficient grass lawns.	We SIPCOT ensure that the green belt plan is implemented as indicated in EMP.
	Others		
	36.	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.	Condition noted.
	37.	The project proponent shall adhere to height of the buildings as committed.	Not applicable. It is an infrastructure development project involving the construction of roads, storm water drains, street lighting, greenbelt development, and related works.
3. SEAC Conditions - Site Specific			
3.1	1.	The construction shall comply with Green Building norms and shall get minimum IGBC Gold rating.	Condition noted.
	2.	50% of the roof area should be covered with Solar panels. Provision of hot water shall be met through solar water heaters.	Condition will be complied.
	3.	The PP shall adopt Permeable pavement design to harvest rainwater.	Condition will be complied.
	4.	The project proponent shall provide entry and exit points for the OSR area, play area as per the norms for the public usage and as committed. The PP shall construct a pond of appropriate size in the earmarked OSR land in consultation with the local body. The pond should be modelled like a temple	Condition noted.

	<p>tank with parapet walls, steps, etc. The pond is meant to play three hydraulic roles, namely (1) as a storage, which acted as insurance against low rainfall periods and also recharges groundwater in the surrounding area, (2) as a flood control measure, preventing soil erosion and wastage of runoff waters during the period of heavy rainfall, and (3) as a device which was crucial to the overall eco-system.</p>	
5.	SIPCOT will allocate Rs. 2 Crores for the schools in the Sivagangai District through Namma School Foundation for the development of Infrastructure facilities.	Condition will be complied.
6.	STP shall be installed on 10-year BOOT basis, so that the construction and maintenance are combined in one single responsibility.	Condition noted.
7.	Project proponent is advised to explore the possibility and getting the cement in a closed container rather through the plastic bag to prevent dust emissions at the time of loading/unloading.	Condition will be complied.
8.	Project proponent should ensure that there will be no use of “Single use of Plastic” (SUP).	<p>Condition noted.</p> <p>All the member units will be mandated to follow all applicable rules and guidelines</p>
9.	The proponent should provide the sufficient electric vehicle charging points as per the requirements at ground level and allocate the safe and suitable place in the premises for the same.	Condition noted.

10.	The project proponent should develop green belt in the township as per the plan submitted and also follow the guidelines of CPCB/Development authority for green belt as per the norms.	Condition will be complied.
11.	Project proponent should spend the CSR amount as per the proposal and submit the compliance report regularly to the concerned authority/Directorate of Environment.	Condition will be complied. We SIPCOT will invest the CSR amount as per the proposal and will submit the compliance report to the concerned authority / Directorate of Environment.
12.	Proponent should submit the certified compliance report of previous/present EC along with action taken report to IRO, MoEF & CC /Director of Environment and other concerning authority regularly.	Condition noted. There is no previous EC obtained for this project. Compliance report of present EC will be submitted to IRO, MoEF & CC /Director of Environment and other concerning authority regularly.
13.	Proponent shall provide the dual pipeline network in the project for utilization of treated water of STP for different purposes and also provide the monitoring mechanism for the same. STP treated water not to be discharged outside the premises without the permission of the concerned authority.	Condition noted. SIPCOT proposed STP only for industrial housing and treated sewage will be utilised in Green belt area. SIPCOT will not propose any CSTP/CETP for the industrial park.
14.	The project proponent shall provide a measuring device for monitoring the various sources of water supply namely fresh water, treated waste water and harvested rain water.	Condition noted

Standard EC Conditions for (Townships/ Area Development Projects / Rehabilitation Centres)

1. Statutory Compliance		
1.1	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.	Condition noted. Construction shall be done in accordance with the layout approval obtained from the town planning authority
1.2	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 lightening etc.	Condition noted. All the member units will be mandated to follow applicable rules and guidelines
1.3	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.	There is no diversion of forest land involved in the project
1.4	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.	Condition noted. The project is not located within Eco Sensitive Zone of any protected area. So, NBWL is not applicable for the project
1.5	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.	Condition complied.
1.6	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	Condition noted.
1.7	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of	Condition noted.

	Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.	
1.8	The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste Management Rules, 2016, shall be followed.	Condition noted. All the member units will be mandated to follow applicable rules and guidelines.
1.9	The project proponent shall follow the ECBC/ECBC-R prescribed by Bureau of Energy Efficiency, Ministry of Power strictly.	Condition Noted.
2. Air Quality Monitoring And Preservation		
2.1	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.	Condition noted. All the member units will be mandated to comply with.
2.2	A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.	Condition noted
2.3	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5) covering upwind and downwind directions during the construction period.	Condition is being complied.
2.4	Diesel power generating sets proposed as source of backup power 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	Condition noted. DG set will act as power back up for common facilities of industrial housing during power failure.

	capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.	
2.5	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.	Condition noted. All the member units will comply with
2.6	Sand, murram, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.	Condition will be complied.
2.7	Wet jet shall be provided for grinding and stone cutting.	Condition will be complied.
2.8	Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.	Condition will be complied.
2.9	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 Management Rules 2016	Condition noted. All the member units will be mandated to follow applicable rules and guidelines.
2.10	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 emission standards.	Condition noted

2.11	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. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.	Condition noted
2.12	For indoor air quality the ventilation provisions as per National Building Code of India.	Condition noted
3. Water Quality Monitoring And Preservation		
3.1	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 rain water.	Condition noted. Waterbodies will be maintained as is where is condition.
3.2	Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.	Condition noted.
3.3	Total fresh water use shall not exceed the proposed requirement as provided in the project details.	Condition notd Water supply request letter to TWAD & TNUIFSL is enclosed as Annexure 3 & 4.
3.4	The quantity of fresh water 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 six monthly Monitoring reports.	Condition noted The Industrial Park is in pre construction phase

3.5	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.	Condition noted. Fresh Water Water supply request letter to TWAD & TNUIFSL is enclosed as Annexure 3 & 4 .
3.6	At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.	Not applicable
3.7	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.	Condition noted. All member units will comply with
3.8	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.	Condition noted. All member units will comply with
3.9	Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be done.	Condition noted
3.10	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.	Condition noted. All member units will comply with
3.11	The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban	Condition noted.

	Development Model Building Byelaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.	
3.12	A rain water 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 fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse	Condition noted.
3.13	All recharge should be limited to shallow aquifer.	Condition noted.
3.14	No ground water shall be used during construction phase of the project.	Condition will be complied.
3.15	The quantity of fresh water 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 six monthly Monitoring reports.	Condition noted
3.16	Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.	Condition noted. SIPCOT will provide STP only for treating sewage from Industrial Housing and all the member industries will be mandated to provide STP to reuse the treated sewage for green belt development
3.17	No sewage or untreated effluent water would be discharged through storm water drains.	Condition noted. All the member industries will be mandated to adopt Zero Liquid Discharge system

3.18	Onsite sewage treatment of capacity of treating 100% waste water 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 waste water 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.	Condition noted. SIPCOT will provide STP only for treating sewage from Industrial Housing and all the member industries will be mandated to provide STP to reuse the treated sewage for green belt development.
3.19	Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.	Condition noted. All the member units will be mandated to comply with.
3.20	Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.	Condition noted. All the member units will be mandated to comply with
4. Noise Monitoring And Prevention		
4.1	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.	Condition noted. Ambient air and noise level will be monitored periodically during construction phase. Air and Noise quality monitoring report is enclosed as Annexure - 9

4.2	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.	Condition noted. Noise level survey Being carried as per the prescribed guidelines and report in this regard will be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report. Noise quality monitoring report is enclosed as Annexure – 9.
4.3	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.	Condition noted. All the member units will be instructed to follow applicable rules and guidelines
5. Energy Conservation Measures		
5.1	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.	Condition noted. All member units shall comply with.
5.2	Outdoor and common area lighting shall be LED.	Condition noted. All member units shall comply with.
5.3	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.	Condition noted. All member units shall comply with.
5.4	Energy conservation measures like installation of CFLs/ LED for the lighting the area outside the building should be integral part of the project design	Condition noted. All member units shall comply with.

	and should be in place before project commissioning.	
6. Waste Management		
6.1	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.	Condition noted. The Industrial Park is in Pre construction phase
6.2	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.	Condition noted. All member units will comply with.
6.3	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.	Condition noted. All member units will comply with
6.4	Organic waste compost/Vermiculture pit/Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.	Condition will be complied. Individual industries will segregate the waste and Organic wastes will be composted in OWC and manure will be used for greenbelt development
6.5	All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up must be done with the authorized recyclers.	Condition noted. All member units will comply with
6.6	Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.	Condition noted. All member units will comply with.
6.7	Use of environment friendly materials in bricks, blocks and other construction materials, shall be required for at least 20% of the construction material	Condition noted. All member units will comply with.

	quantity. These include Fly Ash bricks, hollow bricks, AACs, Fly Ash Lime Gypsum blocks, Compressed earth blocks, and other environment friendly materials.	
6.8	Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.	Condition will be complied.
6.9	Any wastes from construction and demolition activities related there to shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.	Condition noted. All member units will be mandated to follow all applicable rules and guidelines.
6.10	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	Condition noted. All member units will comply with

7. Green Cover

7.1	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).	Condition noted
7.2	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	Condition noted

	invasive species should not be used for landscaping.	
7.3	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.	Condition noted
7.4	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.	Condition will be complied.
8. Transport		
8.1	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.	Condition noted.
8.2	Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.	Condition will be complied. Air and noise quality monitoring report is enclosed as Annexure – 9.
8.3	A detailed traffic management and traffic	Condition noted

	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		
9.1	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.	Condition noted. All member units will comply with.
9.2	For indoor air quality the ventilation provisions as per National Building Code of India.	Condition noted. All member units will comply with.
9.3	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Condition noted.
9.4	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	Condition accepted and noted. Local labours will be employed for the project. There will not be any housing for labour.

	in the form of temporary structures to be removed after the completion of the project.	
9.5	Occupational health surveillance of the workers shall be done on a regular basis.	Condition noted
9.6	A First Aid Room shall be provided in the project both during construction and operations of the project.	Condition noted. All member units will have their own Occupational Health Centre
10. Miscellaneous		
10.1	The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.	Condition complied. SIPCOT have advertised in two local newspapers in Tamil and English. News paper advertisement is enclosed as Annexure - 7
10.2	ii. 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 has to display the same for 30 days from the date of receipt.	Condition complied. A copy of the environmental clearance has been submitted to the Heads of local bodies , Same is enclosed as Annexure - 8
10.3	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.	Condition will be complied.
10.4	The project proponent shall submit six-monthly reports 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.	Condition will be complied.
10.5	The company shall have a well laid down environmental policy duly approved by the Board of	Condition complied.

	<p>Directors. The environmental policy should prescribe for 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 six-monthly report.</p>	
10.6	<p>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 report to the head of the organization.</p>	<p>Condition complied.</p> <p>Separate environmental management cell has been assigned and will report to the General Manager, SIPCOT who will report directly to the Head of the Organization for implementation monitoring and compliance of the environmental safeguards. Details of Environmental Management Cell with Roles and Responsibilities are enclosed as Annexure - 6</p>
10.7	<p>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 Six</p>	<p>Condition noted</p>

	Monthly Compliance Report.	
10.8	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.	Condition will be complied
10.9	The project proponent shall inform the Regional Office as well as the Ministry, 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.	Condition noted.
10.10	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.	Condition noted. All the member units will be instructed to follow the applicable rules and guidelines.
10.11	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during their presentation to the State Expert Appraisal Committee.	Condition noted.
10.12	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change (MoEF&CC)/SEIAA-TN	Condition noted.
10.13	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.	Condition noted.
10.14	The Ministry/SEIAA-TN may revoke or suspend the clearance, if implementation of any of the above	Condition noted.

	conditions is not satisfactory.	
10.15	The Ministry/SEIAA-TN reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Condition noted.
10.16	The Regional Office of this 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.	Condition will be complied.
10.17	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.	Condition noted.
10.18	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.	Condition noted. There is no appeal against this Environmental Clearance .
11. Specific Conditions		
11.1	The project proponent shall develop R& D facilities to develop their own technologies for propylene and polypropylene processing.	Condition will be complied.
STANDARD CONDITIONS		
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.	Condition noted. There is no any appeal against this environmental clearance.
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.	Condition Noted. All member units will comply with.
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.	Condition noted.
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.	Condition noted. All the member industries will be instructed to obtain all necessary statutory clearances and approvals
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	Condition noted.

	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.	Condition noted
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.	Condition will be complied.
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.	Condition will be complied.
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.	Condition complied
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.	Condition noted. There is no change in the scope of the project.
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,	Condition noted

	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.	Condition noted.
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.	Condition noted. SIPCOT shall comply with all applicable conditions specified in the EC.
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, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored.	Condition will be complied. We will upload the status of compliance along with monitoring data on our website and will update the same periodically. Air pollutant indicated for the project are monitored and air quality monitoring report is enclosed as Annexure.- 9
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	Condition noted.

	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.	Condition noted. All the member units will be instructed to obtain all necessary statutory clearances and approvals.
17	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.	Condition noted.
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.	Condition noted.
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.	Condition noted.
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.	Condition complied. Separate environmental management cell has been assigned and will report to the General Manager, SIPCOT who will report directly to the Head of the Organization for implementation monitoring and compliance of the environmental safeguards. Details of Environmental Management Cell with Roles and

		Responsibilities are enclosed as Annexure - 6
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 SEIAA annually.	Condition will be complied.
22	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.	Condition noted.
23	The project activity should not cause any disturbance & deterioration of the local bio diversity.	Condition noted.
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.	Condition will be complied.
25	All the assessed flora & fauna should be conserved and protected.	Condition noted.
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.	Condition will be complied. All the member units will be mandated to follow all applicable rules and guidelines.
27	Necessary permission shall be obtained from the competent authority for the drawl / outsourcing of fresh water before obtaining consent from TNPCB.	Condition complied. Fresh Water Supply letter from TWAD & TTRO Water letter from TWIC is enclosed as Annexure 3 & 4.
28	The proponent shall appoint an Environmental Engineer with necessary qualification for the operation and maintenance of STP (Sewage	Condition noted. All member units will comply with

	Treatment Plant) and GWTP (greywater Treatment Plant)	
29	The Proponent shall provide the dispenser for the disposal of Sanitary Napkins.	Condition noted.
30	All the mitigation measures committed by the proponent for the flood management, Solid waste disposal, Sewage treatment & disposal etc., shall be followed strictly.	Condition noted.
31	No waste of any type to be disposed of in any watercourse including drains, canals and the surrounding environment.	Condition noted.
32	Traffic congestion near the entry and exit points from the roads adjoining the proposed project site must be avoided.	Condition noted.
33	The safety measures proposed in the report should be strictly followed.	Condition noted.

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.	Condition will be Complied.
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.	Condition noted. There is no change in the scope of the project.

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.	Condition complied. Acknowledgement copy from local bodies and government office for submission of clearance letter is enclosed as Annexure – 8
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.	Not applicable. It is an infrastructure development project involving the construction of roads, storm water drains, street lighting, greenbelt development, and related works.
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.	Condition noted
6	Design of buildings should be in conformity with the Seismic Zone Classifications.	Condition noted
7	The Construction of the structures should be undertaken as per the plans approved by the concerned local authorities/local administration.	Condition will be complied. All the member units will comply with
8	No construction activity of any kind shall be taken up in the OSR area.	Condition noted.
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.	Condition noted.
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.	Not applicable. It is an infrastructure development project involving the construction of roads, storm water drains, street lighting, greenbelt

		development, and related works.
11	The Project Proponent shall provide car parking exclusively for the visiting guest in the proposed residential apartments as per CMDA norms.	Not applicable. It is an infrastructure development project involving the construction of roads, storm water drains, street lighting, greenbelt development, and related works.
12	The project proponent shall ensure the entry of basement shall be above maximum flood level.	Condition noted.
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	Condition applicable will be complied
14	A First Aid Room shall be provided in the project site during the entire construction and operation phases of the project.	Condition noted. All member units will have their own Occupational Health Centre as per norms. Apart from this SIPCOT propose to provide a First Aid Centre
15	The present land use surrounding the project site shall not be disturbed at any point of time.	Condition noted.

16	The green belt area shall be planted with indigenous native trees.	Condition noted. Green belt area will 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.	Condition noted.
18	During the construction and operation phase, there should be no disturbance to the aquatic eco-system within and outside the area.	Condition noted.
19	The Provisions of Forest conservation Act 1980, Wild Life Protection Act 1972 & Bio diversity Act 2002 should not be violated.	Condition noted.
20	There should be Firefighting plan and all required safety plan.	Condition noted. All member units will have their own firefighting plan
21	Regular fire drills should be held to create awareness among owners/ residents.	Condition noted. All member units will conduct regular fire drills

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.	Condition will be complied.
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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.	Condition will be complied.
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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.	Condition will be complied.
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.	Condition will be complied.
3. Water Supply:		
i)	The entire water requirement during construction phase may be met from private tankers	Condition will be complied.
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.	Condition noted
ii)	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.	Condition noted

iv)	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices prevalent.	Condition noted
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.	Condition noted. All the member units will comply with

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.	Condition noted.
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.	Condition noted. All member units will be mandated to follow all applicable rules and guidelines.
iii)	Domestic solid wastes to be regularly collected in bins or waste handling receptacles and disposed as per the solid waste management rules 2016.	Condition noted. All member units will be mandated to follow all applicable rules and guidelines.
iv)	No waste of any type to be disposed of in any watercourse including drains, canals and the surrounding environment.	Condition noted.
v)	E-waste shall be disposed through Authorized vendor as per E-waste (Management and Handling) Rules, 2016 and subsequent amendment.	Condition noted. All member units will be mandated to follow all applicable rules and guidelines.

5. Top Soil Management:

i)	All the top soil excavated during construction activities should be stored for use in horticulture/	Condition will be complied. Top soil excavated during
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	landscape development within the project site.	construction activities will be used for greenbelt development.
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.	Condition noted. All member units will be mandated to follow all applicable rules and guidelines.
ii)	Construction spoils, including bituminous materials and other hazardous materials, must not be allowed to contaminate water courses. The dump sites for such materials must be secured so that they should not leach into the adjacent land/ lake/ stream etc.	Condition noted
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.	Condition noted Air and noise monitoring report is enclosed as Annexure- 9 .
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.	Not applicable. SIPCOT have not proposed any DG set.
iii)	The acoustic enclosures shall be installed at all noise generating equipments such as DG sets, air conditioning systems, cooling water tower etc.	Condition noted The acoustic enclosures will be installed at all noise generating

		equipment's Noise quality monitoring report is enclosed as Annexure – 9.
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.	Condition will be complied.
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.	Condition being Complied. Environmental quality monitoring report is enclosed as Annexure- 9.
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.	Condition will be complied with. SIPCOT will develop a designated truck parking facility within the industrial park. In addition, individual industries will provide adequate parking spaces within their premises to accommodate visitors.
iv)	The buildings should have adequate distance between them to allow free movement of fresh air and passage of natural light, air and ventilation.	Condition noted.
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	Condition will be complied.

	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 27 th August, 2003 and Notification No. S.O. 2807 (E) dated: 03.11.2009.	Condition noted.
ii)	Ready-mix concrete shall alone be used in building construction and necessary cube-tests should be conducted to ascertain their quality.	Condition will be complied.
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.	Condition noted.
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.	Condition will be complied. Storm water will be provided all along the internal road. All the member industries will be instructed to follow applicable rules and guidelines
ii)	Storm water management plan shall be obtained by engaging the services of Anna University/IIT.	Condition will be complied.
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.	All the member units will comply with.
ii)	Opaque wall should meet prescribed requirement as per Energy Conservation Building Code which is mandatory for all air conditioned spaces by use of	Condition noted. All the member units will comply with.

	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.	Condition noted.
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.	Condition noted. All the member units will be instructed to comply with.
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.	Condition will be complied.
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.	Condition will be complied.
12. Fire Safety:		
i)	Adequate fire protection equipments and rescue arrangements should be made as per the prescribed standards.	Condition will be complied.
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.	Condition will be complied.
13.Green Belt Development:		
i)	The Project Proponent shall plant tree species with large potential for carbon capture in the proposed	Condition will be complied.

	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.	Condition will be complied. Greenbelt will be developed as per the layout plan.
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.	Condition will be complied.

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.	Not applicable. SIPCOT has not proposed a common Sewage Treatment Plant (STP) for the industrial park. Each individual industry is responsible for establishing its own STP.
i)	The Proponent shall install STP as furnished. Any alteration to satisfy the bathing quality shall be informed to SEIAA-TN.	Not applicable. SIPCOT has not proposed a common Sewage Treatment Plant (STP) for the industrial park. Each individual industry is responsible for establishing its own STP
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	Not applicable. SIPCOT has not proposed a common Sewage Treatment Plant (STP) for the industrial park. Each individual

		industry is responsible for establishing its own STP
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.	Not applicable. SIPCOT has not proposed a common STP / ETP for the industrial park. Each individual industry is responsible for establishing its own STP / ETP.
v)	The project proponent has to ensure the complete recycling of treated Sewage & Effluent water after achieving the standards prescribed by the CPCB.	Not applicable. SIPCOT has not proposed a common STP / ETP for the industrial park.
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.	Not applicable. SIPCOT has not proposed a common Sewage Treatment Plant (STP) for the industrial park. Each individual industry is responsible for establishing its own STP and will provide an adequately sized standby DG set to ensure uninterrupted and efficient operation of the treatment facility.

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	Condition Noted
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	Condition Noted

	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.	Condition Noted
iv)	The project activity should not cause any disturbance & deterioration of the local bio diversity.	Condition Noted.
	16. Building Safety: Lightning arrester shall be properly designed and installed at top of the building and where ever is necessary.	Not applicable. No high rise buildings has been proposed by SIPCOT.

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

Not Applicable – Since the project is under Pre construction phase.

5 ENVIRONMENTAL MONITORING DETAILS

It is mandatory to submit Six Monthly Compliance Report (Half Yearly Compliance) to MoEF & CC Regional Office by the proponent. For the purpose of submitting Six-Monthly Compliance report, environmental monitoring was carried out at site by M/s. Hubert Enviro Care Systems Pvt. Ltd. NABL Accredited Laboratory during the period of October 2024 – March 2025.

5.1 Ambient Air Quality monitoring

The ambient air quality parameters such as suspended Particulate matter (PM10), Respirable Particulate matter (PM 2.5), Sulphur dioxide, Oxides of Nitrogen (NOx), Ammonia, Ozone and Carbon monoxide were monitored. The test report of ambient air quality for the period of October 2024 – March 2025. is enclosed as **Annexure - 9**.

5.2 Ambient Noise level monitoring

Ambient noise levels were monitored and the test report of ambient noise recorded during the period of October 2024 – March 2025. is enclosed as **Annexure 9**.

5.3 Soil quality monitoring

Soil samples were collected and analyzed for nutrients and heavy metals. The test report of soil samples collected and analyzed during the period of October 2024 – March 2025. is enclosed as **Annexure - 9**.

5.4 Ground water quality monitoring

Ground water samples were tested for various water quality parameters during the period of October 2024 – March 2025..The test report of water collected and analyzed is enclosed as **Annexure-9**.

5.5 Surface water quality monitoring

The surface water was collected and tested for various water quality parameters during the period of October 2024 – March 2025. The test report of surface water collected and analyzed is enclosed as **Annexure-9**.

Environmental monitoring Photographs are **Annexure 10**

6 . CONCLUSION

1. The environmental monitoring was carried out at site during the period of October 2024 – March 2025.
2. All the conditions stipulated in Environmental Clearance are being complied/ will be complied.



Dr. RAJKUMAR SAMUEL
Director Technical

Name: Dr. Rajkumar Samuel

Designation: Director Technical

**Company Name: Hubert Enviro Care
Systems Private Limited**



File No: 11623
Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), TAMIL NADU)



Date **12/01/2025**



To,

Thiru.Kumaragurubaran J
 STATE INDUSTRIES PROMOTION CORPORATION OF TAMILNADU LIMITED (SIPCOT)
 19-A, Rukmani Lakshmipathy Road, Egmore, Chennai , Egmore, CHENNAI, TAMIL NADU, Egmore,
 600008
 projects@sipcot.in

Subject: Grant of prior Environmental Clearance (EC) to the proposed project under the provision of the EIA Notification 2006 -as amended regarding.

Sir/Madam,

SEIAA, TN – Proposed Development of Industrial Park at over an extent of 314.07Ha (775.75 Acres) at S.No. 12/1, 12/2, 13/1, 13/2, 13/3, 16/1, 16/4, 16/5, 17/1, 22, 25, 27/1, 27/2, 28/1, 28/2, 30, 203/2, 204/1, 204/3, 205/1, 206/1, 207, 208, 209, 210, 211, 212/2, 213, 214/1, 214/3, 215, 216/1, 216/3, 217, 218/2, 219/2, 220, 221, 222, 223, 224, 225/1, 226/2, 226/3, 227, 228/2, 228/3, 229/1, 229/3, 230/2, 234/1, 234/3, 235/2, 236/2, 237/2, 238/1, 238/3, 238/4, 239/1, 239/3, 240/1, 240/3, 241/1, 241/3, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253/1, 254/1, 254/3, 255, 256, 257, 258, 259, 260, 262/1, 262/3, 263, 264, 265, 266/1, 266/3 and 267 in Illupaikudi Village, SF Nos. 665/2, 668/2, 668/3, 678, 679/1, 680/1, 681/1, 681/3, 682/1, 682/2, 693/2, 694/1 and 694/3 in Kilathari Village and SF Nos. 498/1, 498/3, 498/4, 498/7, 498/11, 498/12 and 498/13 in Arasanoor Village, Sivagangai Taluk, Sivagangai District, Tamil Nadu by M/s. State Industries Promotion Corporation of Tamil Nadu Limited (SIPCOT) – under Category “B1” and Schedule S.No. 8(b) “Township & Area Development Projects” – Issue of Environmental Clearance – Regarding.

Ref:

1. ToR was issued Vide Letter No. SEIAA-TN/F.No.9581/SEAC/8(b)/ToR-1330/2022 dated:10.02.2023.
2. Online proposal No. SIA/TN/INFRA2/515635/2024 Dated;21.12.2024.
3. Application seeking Environmental Clearance dated 23.12.2024.
4. Minutes of the 524th Meeting of SEAC held on 02.01.2025.
5. Minutes of the 788th Meeting of SEAC held on 09.01.2025.

2. The particulars of the proposal are as below :

(i) EC Identification No.

EC24B3813TN5221284N

(ii) File No.

11623

(iii) Clearance Type	Fresh EC
(iv) Category	B1
(v) Project/Activity Included Schedule No.	8(b) Townships/ Area Development Projects / Rehabilitation Centres
(vii) Name of Project	“Development of Industrial Park at Illupaikudi, Kilathari and Arasanoor Villages of Sivagangai Taluk, Sivagangai district, in an area of 314.07Ha (775.75Acres)”
(viii) Name of Company/Organization	STATE INDUSTRIES PROMOTION CORPORATION OF TAMILNADU LIMITED (SIPCOT)
(ix) Location of Project (District, State)	SIVAGANGA, TAMIL NADU
(x) Issuing Authority	SEIAA
(xi) Applicability of General Conditions as per EIA Notification, 2006	No

1.In view of the particulars given in the Para 1 above, the project proposal interalia including Form-2(Part A and B) EMP were submitted to the SEIAA-TN for an appraisal by the SEAC under the provision of EIA notification 2006 and its subsequent amendments.

2.The above-mentioned proposal has been considered by (SEIAA) in the meeting held on 09/01/2025 & 09/01/2025.The minutes of the meeting and all the documents submitted are available on PARIVESH portal which can be accessed by scanning the QR Code above.

3.The SEAC, based on the information viz: Form-2(Part A and B) EMP 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 by the SEAC for grant of Environment Clearance under the provision of EIA Notification,2006 and as amended thereof subject to compliance of Specific and Standard EC conditions as given in this letter.

4.The SEIAA, has examined the proposal in accordance with the provisions contained in the Environment Impact Assessment (EIA) Notification, 2006 & further amendments thereto and based on the recommendations of the State Expert Appraisal Committee hereby accords Environment Clearance to the instant proposal of **M/s. State Industries Promotion Corporation of Tamil Nadu Limited (SIPCOT)** under the provisions of EIA Notification, 2006 and as amended thereof subject to compliance of the Specific and Standard EC conditions as given in Annexure (1)

5. The Ministry/SEIAA-TN reserves the right to stipulate additional conditions, if found necessary.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.

6.The Project Proponent is under obligation to implement commitments made in the Environment Management Plan which forms part of this EC.

7.The PP is under obligation to implement commitments made in the Environment Management Plan, which form part of this EC. 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

10.Salient features of the proposal are as follows:

PROJECT SUMMARY

Sl. No.	Description	Total Quantity	Unit
GENERAL			
1	Plot Area	775.75 acres (314.07Ha)	Acres (Ha)
		Not applicable	
2	Proposed Built Up Area	It is Township and area development project	SQMT

		Not applicable	
		Total developable area is 709.413 acres (287.212 Ha) which includes industrial plots, Common Amenities, Commercial area, Greenbelt, Road, Storm Water Drain, OSR, Solid Waste Management Facility, utilities, etc.	No.
3	Total no of Saleable DU's/Villas		
4	Max Height – (Height of tallest block)	18.3	M
5	No of Building Blocks (Residential + Community facilities)	Nil (Will be proposed by Individual industries)	No.
6	Max No of Floors	Nil (Will be proposed by Individual industries)	No.
7	Expected Population	Construction phase - 100 Nos. Operation phase - 36583 (Industrial Park) including 635 (Industrial Housing)	No.
8	Total Cost of Project	Rs. 342.86	CR
9	Project Activity	It is a “Development of Industrial Park at Illupaikudi, Kilathari and Arasanoor Villages, Sivagangai Taluk, Sivagangai District, Tamil Nadu Over an Extent of 314.07 Ha (775.75 Acres) by M/s. State Industries Promotion Corporation of Tamil Nadu Limited (SIPCOT) for accommodating Non-EC category industries.	
		AREAS	
10	Permissible Ground Coverage Area (xx%)	-	SQMT
11	Proposed Ground Coverage Area (xx%)	-	SQMT
12	Permissible FSI Area (xxx)	-	
13	Proposed FSI Area	-	
14	Other Non FSI Areas - including basement area etc.	-	
15	Proposed Total Built Up Area	-	SQMT
		WATER	
16	Total Water Requirement	7098	KLD
17	Fresh water requirement	1704	KLD
18	Treated Water Requirement	TTRO – 2338 Recycled water - 3056 3066	KLD
19	Wastewater Generation	(Sewage -1456 + 77 & Effluent-1533)	KLD
20	Proposed Capacity of STP & ETP	Industrial Park- Will be proposed by individual industries Industrial Housing- 2x40 KLD STP. In the future, if needed, STP capacity shall be increased, as required	KLD
21	Treated Water Available for Reuse	3056	KLD
22	Treated Water Recycled		KLD
23	Surplus treated water to be discharged in Municipal Sewer with Prior permission, if any	Nil	KLD
		RAINWATER HARVESTING	
24	Rainwater Harvesting - Recharge Pits	-	No.
25	Rainwater Harvesting Sump Capacity	Retention pond	M ³

		(Capacity – 42347.05)	
	PARKING		
25	Total Parking Required as / Building Bye Laws	Will be provided by Individual units within the plot as per norms	ECS
26	Proposed Total Parking	Nil	ECS
27	Parking in Basements		
	GREEN AREA		
	Proposed Green Area (Minimum 15.0% of plot area)	Overall GB 253.391 acres (102.588 Ha)	Acres (Ha)
28	Total area	Total area: 314.07Ha (775.75 Acres) Developable area - 287.212 Ha (709.413 Acres)	Acres (Ha)
	Existing trees on plot	908	Nos
	Number of trees to be planted	192353	Nos
	Number of trees to be transplanted/cut	461 (Cut)	Nos
	SOLID WASTE MANAGEMENT		
29	Total Solid Waste Generation	16.46	TPD
30	Organic waste	9.87	TPD
31	Mode of Treatment & Disposal	Individual industries will segregate the waste and Organic wastes will be composted in OWC and manure will be used for greenbelt development	TPD
32	Quantity of Sludge Generated from STP & Disposal	-	KG/DAY
33	Quantity of E-Waste Generation & Disposal	E-waste such used PC, equipment, sensor, controller, etc will be generated from the proposed units in IP and Industrial Housing. The same will be disposed through TNPCB Authorized E-waste Vendor by Individual units as per E-waste Management Rules 2022 and its amendments thereof.	KG/DAY
34	Quantity of Hazardous waste Generation & Disposal	Hazardous wastes generated from the allotted industries will be managed by them and it will be stored in designated areas within their premises and disposed as per Hazardous waste (Management and Transboundary) Rules 2016 and its amendments thereof.	LPD
	POWER / GREEN POWER		
34	Total Power Requirement	37.1	MVA
35	DG set backup	● Individual industries will have their own power back up ● 1x625kVA DGs will act as power back up for common facilities of industrial housing during power failure.	KVA
36	No of DG Sets	● SIPCOT will not propose any power back up for other common facilities. 1) Roof top solar panels will be proposed in the Project office. Solar power will be utilized for the common areas. 2) Apart from this, individual industries will provide roof top solar panels & solar lighting to reduce power consumption	No.
37	Solar Panels – Roof Coverage		%
38	Hot Water Requirement	-	-

Of which met by Solar Panels

- -

POPULATION

Residential	DU'S	POP/DU	TOTAL POPULATION
Total Saleable Du's			
Total	-	-	-
Non-Residential			
CLUB house (Employees etc.)	Area		
Club/ Industrial Employees	35948	-	35948
Commercial	-	-	-
Facility Management Staff	-	-	-
Total	35948	-	35948
Visitors	-	-	-
Residential	635	-	635
Club/Community Hall	-	-	-
Commercial	-	-	-
Total Visitors	-	-	-
Total Population	36583	-	36583
EMP Cost	Capital cost: 52.65 Crores		
	Recurring cost: 60 Lakhs		
CER Cost	SIPCOT will allocate Rs. 2 Crores for the schools in the Sivagangai District		
Details of CER Activities	through Namma School Foundation for the development of Infrastructure facilities.		

9.General Instructions:

(i)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.

(ii)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.

(iii)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.

(iv)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.

(v)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.

(vi)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.

10. 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.

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. EI 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 (Townships/ Area Development Projects / Rehabilitation Centres)

1. Seiaa Specific Conditions:

S. No	EC Conditions
1.1	<p>i) The PP shall obtain all the land survey numbers indicated in the project proposal and should submit the comprehensive area details before obtaining CTE from TNPCB.</p> <p>ii) The PP shall increase the tree cover area to a minimum of 33% in the SIPCOT premises and should also ensure the same for the upcoming individual industries inside the SIPCOT.</p> <p>iii) The PP should obtain the fresh water supply commitment letter from the Tamil Nadu Water Supply and Drainage (TWAD) Board / Municipal Administration and Water Supply Department before obtaining CTE from TNPCB and shall submit the copy of the same to SEIAA.</p> <p>iv) The PP, SIPCOT should plan a comprehensive ETP based on the upcoming industries and the details of the same should be furnished to TNPCB and in the Six-monthly compliance report to SEIAA-TN.</p> <p>v) The solid waste and e-waste should be disposed strictly adhering to the Solid waste management rules, 2016 and E-waste management rules, 2016 respectively.</p> <p>vi) The PP should ensure that the activities inside the SIPCOT should not result in the disruption of agriculture activities, animal husbandry, horticulture, livelihood, soil erosion and drainage pattern in the vicinity of the area.</p> <p>vii) Since, the proposed project has two parcels namely Parcel A and Parcel B, the PP should ensure that adequate number of trees are planted along the roads connecting these two parcels.</p> <p>viii) The PP should provide separate STP, ETP and other needed provisions for the proposed parcels A and B allowing them to function independently.</p> <p>ix) Green engineering of building design should be adopted.</p> <p>x) Cool roofs should be provided to curtail heat absorption.</p>

2. Seiaa Standard Conditions:

S. No	EC Conditions
2.1	<p><u>Climate Change</u></p> <p>1. The proponent shall adopt strategies to decarbonize the building, reduce carbon footprints and develop strategies for climate proofing and mitigation.</p> <p>2. The proponent shall adopt strategies to reduce carbon & GHG emissions during operation (operational phase and building materials).</p> <p>3. The proponent shall adopt methodology to control thermal environment and other shocks in the building.</p> <p>4. The proponent shall adopt strategies to ensure the buildings in blocks are not trapping heat to become local urban heat islands.</p> <p>5. The proponent shall ensure that the building does not create artificial wind tunnels creating cold water and uncomfortable living conditions resulting in health issues.</p>

S. No	EC Conditions
	<p>6. The activities should in no way cause emission and build-up Green House Gases. All actions to be eco-friendly and support sustainable management of the natural resources within and outside the campus premises.</p> <p>7. The proponent shall ensure that the buildings does not cause any damage to water environment, air quality and should be carbon neutral building.</p> <p><u>Health</u></p> <p>8. The proponent shall adopt strategies to maintain the health of the inhabitants within and in the vicinity.</p> <p><u>Energy</u></p> <p>9. The proponent shall adopt strategies to reduce electricity demand and consumption.</p> <p>10. The proponent shall provide provisions for automated energy efficiency.</p> <p>11. The proponent shall provide provisions for controlled ventilation and lighting systems.</p> <p>12. 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>13. The proponent shall effectively implement and strictly adhere to 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>14. The proponent shall provide elevator as per rules CMDA/DTCP.</p> <p><u>Database maintenance & audits</u></p> <p>15. 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>16. The proponent should maintain environmental audits to measure and mitigate environmental concerns.</p> <p><u>Biodiversity</u></p> <p>17. The proponent shall ensure that the proposed activities in no way result in the spread of invasive species.</p> <p>18. 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>19. The proponent shall ensure utmost safety for the existing biodiversity, trees, flora & fauna and the critically endangered species & endangered species shall not disturb under any circumstances.</p> <p>20. 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>21. The proponent shall adopt strategies to prevent birds getting hit by the high buildings.</p> <p><u>Safety measures</u></p> <p>22. The proponent should develop an emergency response plan & safety evacuation plan (including disabled people) in addition to the disaster management plan.</p> <p>23. All bio-safety standards, hygienic standards and safety norms of working staff to be strictly followed as stipulated in EIA/EMP.</p> <p>24. The disaster management/disaster mitigation standards& fire safety standards as prescribed by competent authorities.</p>

S. No	EC Conditions
	<p>25. The proponent shall provide the emergency exit in the buildings.</p> <p><u>Water/Sewage</u></p> <p>26. The proponent shall ensure that no untreated sewage is let outside the project site under any circumstances. Further, the treated water shall not be disposed off through any other means other than the permitted mode of disposal.</p> <p>27. 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>28. The proponent shall periodically test the treated sewage the through TNPCB lab /NABL accredited laboratory and submit report to the TNPCB & IRO of MoEF&CC.</p> <p>29. The proponent shall ensure that provision should be given for proper utilization of recycled water.</p> <p>30. The project proponent shall adhere to storm water management plan as committed.</p> <p><u>Parking</u></p> <p>31. The project proponent shall provide adequate parking space for visitors of all inmates including clean traffic plan as committed.</p> <p><u>Solid waste Management</u></p> <p>32. The proponent shall ensure that no form of municipal solid waste shall be disposed outside the proposed project site at any time.</p> <p>33. 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>34. The proponent shall strictly adhere to the EIA/EMP report.</p> <p>35. The proponent shall ensure that 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>36. 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>37. The project proponent shall adhere to height of the buildings as committed.</p>

3. Seac Conditions - Site Specific

S. No	EC Conditions
3.1	<p>1. The construction shall comply with Green Building norms and shall get minimum IGBC Gold rating.</p> <p>2. 50% of the roof area should be covered with Solar panels. Provision of hot water shall be met through solar water heaters.</p> <p>3. The PP shall adopt Permeable pavement design to harvest rainwater.</p> <p>4. The project proponent shall provide entry and exit points for the OSR area, play area as per the norms for the public usage and as committed. The PP shall construct a pond of appropriate size in the earmarked OSR land in consultation with the local body. The pond should be modelled like a</p>

S. No	EC Conditions
	<p>temple tank with parapet walls, steps, etc. The pond is meant to play three hydraulic roles, namely (1) as a storage, which acted as insurance against low rainfall periods and also recharges groundwater in the surrounding area, (2) as a flood control measure, preventing soil erosion and wastage of runoff waters during the period of heavy rainfall, and (3) as a device which was crucial to the overall eco-system.</p> <p>5. SIPCOT will allocate Rs. 2 Crores for the schools in the Sivagangai District through Namma School Foundation for the development of Infrastructure facilities.</p> <p>6. STP shall be installed on 10-year BOOT basis, so that the construction and maintenance are combined in one single responsibility.</p> <p>7. Project proponent is advised to explore the possibility and getting the cement in a closed container rather through the plastic bag to prevent dust emissions at the time of loading/unloading.</p> <p>8. Project proponent should ensure that there will be no use of “Single use of Plastic” (SUP).</p> <p>9. The proponent should provide the sufficient electric vehicle charging points as per the requirements at ground level and allocate the safe and suitable place in the premises for the same.</p> <p>10. The project proponent should develop green belt in the township as per the plan submitted and also follow the guidelines of CPCB/Development authority for green belt as per the norms.</p> <p>11. Project proponent should spend the CSR amount as per the proposal and submit the compliance report regularly to the concerned authority/Directorate of Environment.</p> <p>12. Proponent should submit the certified compliance report of previous/present EC along with action taken report to IRO, MoEF & CC /Director of Environment and other concerning authority regularly.</p> <p>13. Proponent shall provide the dual pipeline network in the project for utilization of treated water of STP for different purposes and also provide the monitoring mechanism for the same. STP treated water not to be discharged outside the premises without the permission of the concerned authority.</p> <p>14. The project proponent shall provide a measuring device for monitoring the various sources of water supply namely fresh water, treated waste water and harvested rain water.</p>

Standard EC Conditions for (Townships/ Area Development Projects / Rehabilitation Centres)

1. Statutory Compliance

S. No	EC Conditions
1.1	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.
1.2	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 lightening etc.
1.3	The project proponent shall obtain forest clearance under the provisions of Forest (Conservation) Act, 1980, in case of the diversion of forest land for non-forest purpose involved in the project.
1.4	The project proponent shall obtain clearance from the National Board for Wildlife, if applicable.
1.5	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.

S. No	EC Conditions
1.6	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.
1.7	All other statutory clearances such as the approvals for storage of diesel from Chief Controller of Explosives, Fire Department, Civil Aviation Department shall be obtained, as applicable, by project proponents from the respective competent authorities.
1.8	The provisions of the Solid Waste Management Rules, 2016, e-Waste (Management) Rules, 2016, and the Plastics Waste Management Rules, 2016, shall be followed.
1.9	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

S. No	EC Conditions
2.1	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.
2.2	A management plan shall be drawn up and implemented to contain the current exceedance in ambient air quality at the site.
2.3	The project proponent shall install system to carryout Ambient Air Quality monitoring for common/criterion parameters relevant to the main pollutants released (e.g. PM10 and PM2.5) covering upwind and downwind directions during the construction period.
2.4	Diesel power generating sets proposed as source of backup power should be of enclosed type and conform to rules made under the Environment (Protection) Act, 1986. The height of stack of DG sets should be equal to the height needed for the combined capacity of all proposed DG sets. Use of low sulphur diesel. The location of the DG sets may be decided with in consultation with State Pollution Control Board.
2.5	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, murrum and other construction materials prone to causing dust pollution at the site as well as taking out debris from the site.
2.6	Sand, murrum, loose soil, cement, stored on site shall be covered adequately so as to prevent dust pollution.
2.7	Wet jet shall be provided for grinding and stone cutting.
2.8	Unpaved surfaces and loose soil shall be adequately sprinkled with water to suppress dust.
2.9	All construction and demolition debris shall be stored at the site (and not dumped on the roads or

S. No	EC Conditions
	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 Management Rules 2016.
2.10	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 emission standards.
2.11	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. Low sulphur diesel shall be used. The location of the DG set and exhaust pipe height shall be as per the provisions of the Central Pollution Control Board (CPCB) norms.
2.12	For indoor air quality the ventilation provisions as per National Building Code of India.

3. Water Quality Monitoring And Preservation

S. No	EC Conditions
3.1	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 rain water.
3.2	Buildings shall be designed to follow the natural topography as much as possible. Minimum cutting and filling should be done.
3.3	Total fresh water use shall not exceed the proposed requirement as provided in the project details.
3.4	The quantity of fresh water 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 six monthly Monitoring reports.
3.5	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.
3.6	At least 20% of the open spaces as required by the local building bye-laws shall be pervious. Use of Grass pavers, paver blocks with at least 50% opening, landscape etc. would be considered as pervious surface.
3.7	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.
3.8	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.
3.9	Separation of grey and black water should be done by the use of dual plumbing system. In case of single stack system separate recirculation lines for flushing by giving dual plumbing system be

S. No	EC Conditions
	done.
3.10	Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices referred.
3.11	The local bye-law provisions on rain water harvesting should be followed. If local bye-law provision is not available, adequate provision for storage and recharge should be followed as per the Ministry of Urban Development Model Building Byelaws, 2016. Rain water harvesting recharge pits/storage tanks shall be provided for ground water recharging as per the CGWB norms.
3.12	A rain water 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 fresh water requirement shall be provided. In areas where ground water recharge is not feasible, the rain water should be harvested and stored for reuse.
3.13	All recharge should be limited to shallow aquifer.
3.14	No ground water shall be used during construction phase of the project.
3.15	The quantity of fresh water 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 six monthly Monitoring reports.
3.16	Sewage shall be treated in the STP with tertiary treatment. The treated effluent from STP shall be recycled/re-used for flushing, AC make up water and gardening. As proposed, no treated water shall be disposed in to municipal drain.
3.17	No sewage or untreated effluent water would be discharged through storm water drains.
3.18	Onsite sewage treatment of capacity of treating 100% waste water 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 waste water 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.
3.19	Periodical monitoring of water quality of treated sewage shall be conducted. Necessary measures should be made to mitigate the odour problem from STP.
3.20	Sludge from the onsite sewage treatment, including septic tanks, shall be collected, conveyed and disposed as per the Ministry of Urban Development, Central Public Health and Environmental Engineering Organization (CPHEEO) Manual on Sewerage and Sewage Treatment Systems, 2013.

4. Noise Monitoring And Prevention

S. No	EC Conditions
4.1	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

S. No	EC Conditions
	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.
4.2	Noise level survey shall be carried as per the prescribed guidelines and report in this regard shall be submitted to Regional Officer of the Ministry as a part of six-monthly compliance report.
4.3	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

S. No	EC Conditions
5.1	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.
5.2	Outdoor and common area lighting shall be LED.
5.3	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.
5.4	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. Waste Management

S. No	EC Conditions
6.1	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.
6.2	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.
6.3	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.
6.4	Organic waste compost/Vermiculture pit/Organic Waste Converter within the premises with a minimum capacity of 0.3 kg /person/day must be installed.
6.5	All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie up

S. No	EC Conditions
	must be done with the authorized recyclers.
6.6	Any hazardous waste generated during construction phase, shall be disposed off as per applicable rules and norms with necessary approvals of the State Pollution Control Board.
6.7	Use of environment 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 environment friendly materials.
6.8	Fly ash should be used as building material in the construction as per the provision of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003 and 25th January, 2016. Ready mixed concrete must be used in building construction.
6.9	Any wastes from construction and demolition activities related thereto shall be managed so as to strictly conform to the Construction and Demolition Waste Management Rules, 2016.
6.10	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

S. No	EC Conditions
7.1	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).
7.2	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.
7.3	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.
7.4	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.

8. Transport

S. No	EC Conditions
8.1	A comprehensive mobility plan, as per MoUD best practices guidelines (URDPFI), shall be

S. No	EC Conditions
	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.
8.2	Vehicles hired for bringing construction material to the site should be in good condition and should have a pollution check certificate and should conform to applicable air and noise emission standards be operated only during non-peak hours.
8.3	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

S. No	EC Conditions
9.1	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.
9.2	For indoor air quality the ventilation provisions as per National Building Code of India.
9.3	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.
9.4	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.
9.5	Occupational health surveillance of the workers shall be done on a regular basis.
9.6	A First Aid Room shall be provided in the project both during construction and operations of the project.

10. Miscellaneous

S. No	EC Conditions
10.1	The project proponent shall prominently advertise it at least in two local newspapers of the District or State, of which one shall be in the vernacular language within seven days indicating that the

S. No	EC Conditions
	project has been accorded environment clearance and the details of MoEFCC/SEIAA website where it is displayed.
10.2	ii. 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 has to display the same for 30 days from the date of receipt.
10.3	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.
10.4	The project proponent shall submit six-monthly reports 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.
10.5	The company shall have a well laid down environmental policy duly approved by the Board of Directors. The environmental policy should prescribe for 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 six-monthly report.
10.6	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 report to the head of the organization.
10.7	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 Six Monthly Compliance Report
10.8	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.
10.9	The project proponent shall inform the Regional Office as well as the Ministry, 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.
10.10	The project authorities must strictly adhere to the stipulations made by the State Pollution Control Board and the State Government.
10.11	The project proponent shall abide by all the commitments and recommendations made in the EIA/EMP report and also that during their presentation to the State Expert Appraisal Committee.
10.12	No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change (MoEF&CC)/SEIAA-TN.

S. No	EC Conditions
10.13	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.
10.14	The Ministry/SEIAA-TN may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
10.15	The Ministry/SEIAA-TN reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
10.16	The Regional Office of this 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.
10.17	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.
10.18	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.

11. Specific Conditions

S. No	EC Conditions
11.1	The project proponent shall develop R& D facilities to develop their own technologies for propylene and polypropylene processing.

AFFIDAVIT FURNISHED BY THE PROPONENT

I, Dr. K. Senthil Raj, I.A.S., Managing Director, Authorized Signatory, representing M/s. State Industries Promotion Corporation of Tamil Nadu Limited (SIPCOT) having registered office at 19-A, Rukmani Lakshmipathy Road, Egmore, Chennai – 600008, for the Proposed “Development of Industrial Park” over an extent of 314.07Ha (775.75 Acres) at

SF Nos 12/1, 12/2, 13/1, 13/2, 13/3, 16/1, 16/4, 16/5, 17/1, 22, 25, 27/1, 27/2, 28/1, 28/2, 30, 203/2, 204/1, 204/3, 205/1, 206/1, 207, 208, 209, 210, 211, 212/2, 213, 214/1, 214/3, 215, 216/1, 216/3, 217, 218/2, 219/2, 220, 221, 222, 223, 224, 225/1, 226/2, 226/3, 227, 228/2, 228/3, 229/1, 229/3, 230/2, 234/1, 234/3, 235/2, 236/2, 237/2, 238/1, 238/3, 238/4, 239/1, 239/3, 240/1, 240/3, 241/1, 241/3, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253/1, 254/1, 254/3, 255, 256, 257, 258, 259, 260, 262/1, 262/3, 263, 264, 265, 266/1, 266/3 and 267 in Illupaikudi Village, SF Nos. 665/2, 668/2, 668/3, 678, 679/1, 680/1, 681/1, 681/3, 682/1, 682/2, 693/2, 694/1 and 694/3 in Kilathari Village and SF Nos. 498/1, 498/3, 498/4, 498/7, 498/11, 498/12 and 498/13 Arasanoor Village of Sivagangai Taluk, Sivagangai district, Tamil Nadu State, hereby take oath and state as under in this affidavit:

- I. The total water requirement of the park is tentatively estimated at 7098 KLD (Fresh water: 1704 KLD, TTRO water: 2338 KLD and Recycled water: 3056 KLD). Fresh water Requirement of 1704 KLD and TTRO water of 2338KLD will be sourced from TWAD / Municipal Administration and Water Supply Department.
- II. Power Supply (37.1 MVA) will be ensured from Tamil Nadu Generation and Distribution Co. Ltd. (TANGEDCO) Facility as a common supply system by SIPCOT to all member industries. Individual industries will have their own power back up. SIPCOT will not propose any power back up for other common facilities except a separate DG set for industrial housing facility.
- III. Storm water drainage system will be provided along the road ensuring proper rain water harvesting. All member industries will be instructed to provide rain water harvesting structures as per norms. Storm water will be collected in ponds through storm water drains and only excess storm water will be let into nearby water bodies.
- IV. Individual industries will segregate the waste within the site. Organic wastes will be composted and compost will be used as manure for green belt development. Inorganic wastes will be sold to TNPCB authorized recyclers/local vendors. SIPCOT has proposed to earmark separate land for Solid Waste Management Facility (including a shed for E-Waste).

- V. Individual industries will dispose the E-waste through TNPCB Authorized E-waste Vendor as per E-waste Management Rules 2022 and its amendments thereof.
- VI. Hazardous wastes generated by the allotted industries will be managed by them and it will be stored in designated areas within their premises and disposed as per Hazardous waste (Management and Transboundary) Rules 2016 and its amendments thereof.
- VII. Individual industries will have their own Sewage Treatment Plants. Treated sewage will be recycled for green belt development. Sewage from industrial Housing will be treated through Individual STP and Treated sewage will be reused for green belt development. Individual industries will have their own Effluent Treatment Plants and will be mandated to adopt Zero Liquid Discharge system. Treated effluent will be recycled for process and utilities purpose. Individual industries will be instructed to provide all pollution control measures as per CPCB/TNPCB norms.
- VIII. Overall Greenbelt area of the IP would be 102.588 Ha (i.e. 35.71% of developable area i.e., 287.212 Ha).
- IX. Tentative EMP cost of the park is INR 52.65 Crores. Details are given below:

S. No	Project Components	Tentative Capital Cost (INR Crores)
1	Solid Waste Management Facility	5.07
2	STP for Industrial Housing	0.70
3	DG sets Acoustics and Stack (for Industrial Housing)	0.40
4	Greenbelt development	0.48
5	Internal Drain, PO culvert, Rain Water Harvesting	45.72
6	Roof top solar	0.28
Total EMP Cost		52.65

- X. As per the MoEF&CC Office Memorandum No. 22-65/2017-IA.III, dated 25.02.2021, SIPCOT will allocate INR 52.65 Crores towards Environment Management Plan (EMP) instead of allocation of funds under Corporate Environment Responsibility (CER). However as per the direction of SEAC, an amount of INR. 2.0 crores will be spent towards Namma School Foundation.

Declaration

I, Dr. K. Senthil Raj, I.A.S., do hereby declare that the statement made by me under para (I) to (X) are true and correct to the best of my knowledge and belief. Nothing is false and nothing is concealed in it.

STANDARD CONDITIONS

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 TNPCCB. 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 SEIAA, 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 SEIAA 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.



STATE INDUSTRIES PROMOTION CORPORATION OF TAMILNADU LIMITED

ENVIRONMENT POLICY

PREAMBLE

SIPCOT has established 21 Industrial Complexes / Parks / Growth Centres besides 7 SEZs within these Industrial Parks. SIPCOT is also in the process of establishing eight new Industrial Parks besides other ongoing Land Acquisition schemes.

As per the EIA notification, 2006 of MoEF&CC, SIPCOT obtained Environmental Clearance for 8 Industrial Complexes / Parks; also, SIPCOT is in the process of obtaining Environmental Clearance for the upcoming Industrial Complexes/ Parks/ Growth Centers. As per the condition stipulated in the Environmental Clearance, the Company shall have a well laid down Environment Policy approved by the Board of Directors.

1. OBJECTIVE OF ENVIRONMENT POLICY

- 1.1 The key objective of the SIPCOT Environment Policy is to attract Industrial Investment, Employment Generation, and Creation of Industrial Infrastructure across Tamil Nadu by ensuring a balance between development and environment.
- 1.2 The present policy is formulated with the following objectives:
 - 1.2.1 To continuously improve the environmental status of the Industrial Complexes / Parks / Growth Centers / SEZs through the implementation of sustainable environmental practices.
 - 1.2.2 To obtain all statutory clearances and approvals and to follow the conditions stipulated by the regulatory authorities.
 - 1.2.3 To improve social infrastructure and environmental conditions in and around the project site by earmarking separate fund for carrying out the implementation works.

- 1.2.4 To form an exclusive Environmental Management Cell to implement and review the progress of environmental safeguard measures.
- 1.2.5 To encourage allottee units to adopt efficient and effective environmental management and monitoring systems.

2. STRATEGIES AND ACTION PLANS

2.1 Regulatory Approach:

- 2.1.1 In accordance with the EIA Notification, 2006, SIPCOT has obtained prior Environmental Clearance for the Industrial Complexes / Parks established after the year 2006.
- 2.1.2 For the proposed Industrial Complexes / Parks / Growth Centres / SEZ, SIPCOT shall obtain Environmental Clearance / CRZ Clearance as per EIA / CRZ notification. All necessary approvals/clearance shall be obtained from the competent authority as stipulated in Environmental Clearance conditions, and the same shall be complied as per the standards and norms stipulated by MoEF&CC/SEIAA.
- 2.1.3 As per the norms and conditions of EC, SIPCOT shall obtain Consent to Establish (CTE) / Consent to Operate (CTO) for the Industrial Complexes/ Parks/ Growth Centers from Tamil Nadu Pollution Control Board.

2.2 Compliance to Regulatory Conditions:

- 2.2.1 SIPCOT shall comply with the following conditions stipulated in the Environmental Clearance:
 - a) Submission of Half Yearly compliance report including the results of monitoring data to the SEIAA / MoEF / CPCB Zonal office / TNPCB 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.

b) Environmental Statement for each financial year ending 31st March in Form – V as mandated by TNPCB shall be submitted as prescribed under Environment (Protection) Rules, 1986 and amended subsequently. The same shall be made available in the website of SIPCOT along with the status of compliance of EC conditions and shall also be sent to the respective regulatory authority.

c) Monitoring ambient air, water, and noise quality during the operation phase, including criteria pollutant levels or critical sectoral parameters, indicated if any, for the project.

2.3 Corporate Environmental Responsibility (CER):

2.3.1 As per the Office Memorandum dated 1st May 2018 from MoEF&CC, GOI (F.No.22-65/2017-IA.III), the fund allocation for the Corporate Environment Responsibility (CER) shall be in addition to the cost envisaged for the implementation of the EIA/EMP which includes the measures for the pollution control, environmental protection measures including the NPV and Compensatory Afforestation, required, if any, and any other activities, to be derived as part of the EIA process subject to the maximum percentage as prescribed below for different cases:

Table - 1: CER Cost for Implementation of Projects

Sl.No.	Capital Investment / Additional Capital Investment (in Rs.)	Greenfield Project - % of Capital Investment	Brownfield Project - % of Additional Capital Investment
I	II	III	IV
1.	<= 100 Crores	2.0%	1.0%
2.	> 100 Crores to <= 500 Crores	1.5%	0.75%
3.	> 500 Crores to <= 1000 Crores	1.0%	0.50%
	> 1000 Crores to <= 10000 Crores	0.5%	0.25%
4.	> 10000 Crores	0.25%	0.125%

- 2.3.2 Greenfield projects are the projects which are not following a prior work i.e., the projects on the unused lands where there is no need to remodel or demolish an existing structure. Brownfield projects are the projects which are modified or upgraded.
- 2.3.3 The activities proposed under CER shall be worked out based on the issues raised during the public hearing, social need assessment, R&R plan, Environmental Management Plan, etc.
- 2.3.4 Some of the activities which can be carried out in CER are infrastructure creation for drinking water supply, sanitation, health, education, skill development, roads, cross drains, electrification including solar power, solid waste management facilities, scientific support and awareness to local farmers to increase the yield of crop and fodder, rainwater harvesting, soil moisture conservation works, avenue plantation, plantation in community areas, etc.
- 2.3.5 A separate fund may be earmarked for implementing Environmental Protection Measures, in respect of the projects for which EC has been obtained after the CER notification dated 01.05.2018, the cost of the project shall include CER provisions for the specified percentage depending upon the investment amount. The fund shall be utilized for the purpose of allocation of Green initiatives and CER activities.
- 2.3.6 The entire activities proposed under the CER shall be treated as SIPCOT Social & Environmental Initiative and shall be monitored periodically. The monitoring report shall be submitted to the regional office as a part of the half-yearly compliance report.

2.4 Environmental Management Cell:

- 2.4.1 As per the Condition stipulated in the Environmental Clearance; the Company shall have an Environmental Management Cell consists of 7 team members to implement the Environmental Management Plan.

2.4.2 SIPCOT Environmental Management Cell may consist of 7 team members headed by SIPCOT Managing Director, General Manager (Projects), Manager and two Environmental Consultants assisted by two Office Staffs, which will enforce and implement the Environmental Plan.

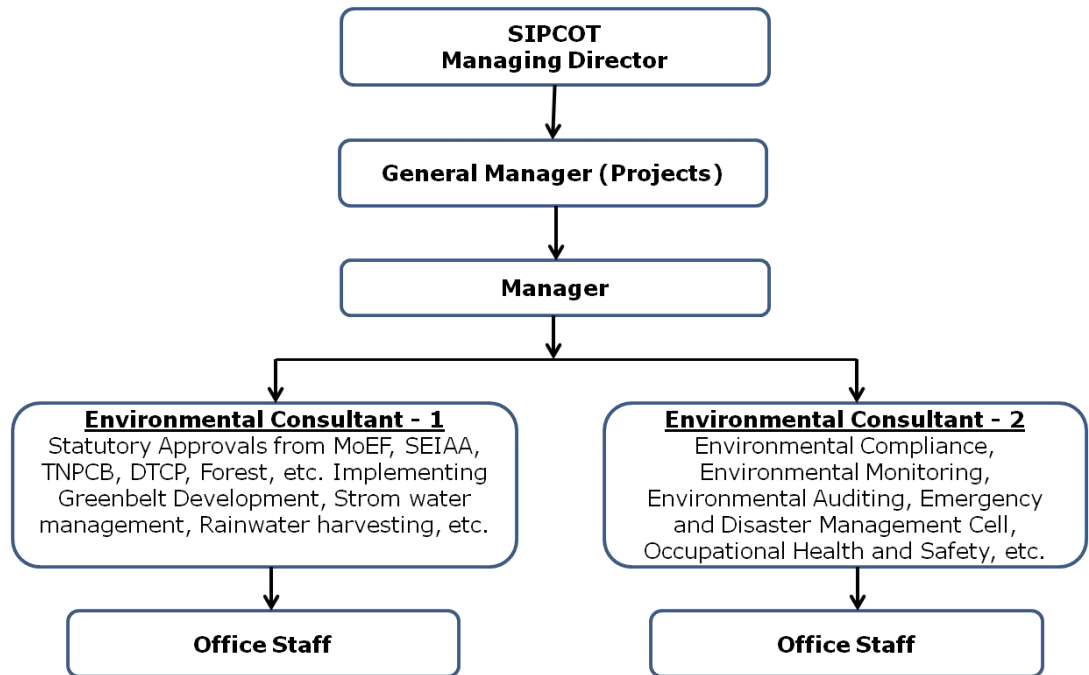


Figure – 1: Environmental Management Cell

2.4.3 The Environmental Management Cell shall obtain all applicable statutory clearances and approvals as mandated by the regulatory authorities and maintain the Industrial Complexes/ Parks/ Growth Centers in compliance with all applicable rules and regulations. The team shall address various queries received from statutory authorities on the environmental front related to SIPCOT projects.

2.5 Other Environmental Safeguard Action Plans:

2.5.1 SIPCOT land-use policy would accord priority to the protection and preservation of vulnerable ecosystems, including protected forests, bio-reserves, wetlands, coastal ecosystems.

- 2.5.2 Appropriate locating of industries (depending on the category of industry) and environmental safeguards will be built into the planning and management of these industrial corridors and nodes.
- 2.5.3 Encouraging the industrial units to install Continuous and Emission Monitoring Systems in collaboration with TNPCB.
- 2.5.4 SIPCOT shall develop greenery around its boundary wall of the acquired land, maintain and recommend the individual units to allocate 33% of green area as per EIA notification.
- 2.5.5 SIPCOT shall stipulate specific conditions in the Allotment Order / Lease Deed to comply with the Environmental Clearance conditions by a suitable undertaking from the allottees.

3. ENVIRONMENTAL INITIATIVES BY SIPCOT

- 3.1 SIPCOT insists the industrial units to adopt Zero Liquid Discharge (ZLD) concept.
- 3.2 Rainwater harvesting systems be implemented in SIPCOT industrial parks to further increase groundwater table.
- 3.3 SIPCOT initiate a mission-mode program to clean and rejuvenate the existing water bodies, within and around (1 km radius) SIPCOT Industrial Areas.
- 3.4 Revamping of damaged roads, drainages, and storage structures in SIPCOT Industrial Complexes/ Parks/ Growth Centers.
- 3.5 SIPCOT initiate the process of closing the unauthorized bore wells located within the industrial area in view of limiting the groundwater extraction and mandating the industrial units to use treated water.

4. ENVIRONMENTAL AWARENESS, AWARDS AND TRAINING PROGRAMS

- 4.1 SIPCOT plans to conduct environmental awareness and training programmes for the allottee units along with TNPCB, Integrated Waste Management Association, and other government bodies.
- 4.2 SIPCOT may conduct training program for SIPCOT employees in:
 - a) Understanding of Environmental Laws.
 - b) Updating knowledge on environmental rules and its subsequent amendments.
 - c) Protocol for conducting environmental monitoring within the industrial units.
 - d) Environmental Health and Safety management system.
- 4.3 SIPCOT also has plans to issue Green Awards to the Industries, to encourage green initiatives and to maintain sustainability in their industrial premises.

5. ENCOURAGING INDUSTRIES TOWARDS GREEN INITIATIVES

- 5.1 In order to promote Green Initiatives, SIPCOT encourages allottee units to implement, adopt and use of green and sustainable technologies such as Solar, Wind, Thermal, Biomass, Electric & Hybrid vehicles, etc. to achieve more resource-efficient, clean and resilient growth towards reducing pollution during their process, manufacturing and transportation of goods and encourages energy recovery for self-sustainability from their Industrial process.
- 5.2 SIPCOT also encourages industries to reduce the use of one time use plastics, Styrofoam, and other plastic material during the packing and delivery of goods. SIPCOT encourages allottees to maintain the biodiversity nature of their nativity.
- 5.3 SIPCOT plans to gradually implement Energy Conservation measures such as the installation of LED for lighting the roads, common areas and to utilize solar energy wherever possible.

6. ENVIRONMENTAL REGULATORY UPDATING AND DOCUMENTATION

The Environmental Management Cell will review, implement, update, and comply with the Environment Policy to ensure the effective implementation of environmental safeguard measures. The team shall review the progress of regulatory compliance of SIPCOT and initiate necessary action for the compliance of the same. The team shall document the activities implemented under Corporate Environmental Responsibility through the line department of SIPCOT for periodical review and submission of the same to the regulatory authority.

7. POLICY REVIEW AND IMPLEMENTATION

7.1 The Environment Policy shall be implemented by improving the institutional arrangements and resources for the environmental improvement measures identified in the policy.

7.2 This policy has been drafted with current developments, information, and knowledge. The progress with respect to priorities, strategies, and actions addressing emerging environmental issues if any shall be submitted to the Board of SIPCOT for review periodically.

8. SUMMARY

8.1 SIPCOT shall obtain Consent to Establish (CTE) / Consent to Operate (CTO) for the Industrial Complexes/ Parks/ Growth Centers from Tamil Nadu Pollution Control Board, as per Sl. No. 2.1.3 supra.

8.2 SIPCOT shall submit Half Yearly Compliance Report along with the results of monitoring data and to submit Environmental Statement (Form-V) for each financial year ending 31st March to the respective regulatory authority and to upload the same in SIPCOT website, as per Sl. No. 2.2.1 (a) & (b) supra.

- 8.3 SIPCOT shall take necessary initiatives to monitor ambient air, water, and noise quality during the operation phase in respect of the Projects for which EC was obtained and the projects to be implemented in the future, as per Sl. No. 2.2.1 (c) supra.
- 8.4 SIPCOT shall allocate a separate fund for implementing Environmental Protection Measures, in respect of the projects for which EC has been obtained after the CER notification dated 01.05.2018, the cost of the project shall include CER provisions for the specified percentage depending upon the investment amount. The fund shall be utilized for the purpose of allocation of Green initiatives and CER activities, as per Sl. No. 2.3 supra.
- 8.5 SIPCOT shall approve the Environmental Management Cell consisting of 7 team members headed by SIPCOT Managing Director to enforce and implement the plan designed by the team, as per Sl. No. 2.4 supra.
- 8.6 SIPCOT shall develop greenery around its boundary wall of the acquired land, maintained, and recommends the individual units to allocate 33% of green area as per EIA notification, as per Sl. No. 2.5.4 supra.
- 8.7 SIPCOT shall conduct environmental awareness training programs for the industries and SIPCOT employees on an annual basis, as per Sl. No. 4.1 & 4.2 supra.
- 8.8 SIPCOT shall gradually implement Energy Conservation measures such as the installation of CFL/TFL for lighting the common area, to utilize solar energy wherever possible, as per Sl. No. 5.3 supra.



Municipal Administration and
Water Supply (WS.1) Department,
Secretariat, Chennai - 600 009.

Letter No.4185/WS.1(2)/2024-1, dated 17.10.2024

From

Tmt. K. Karpagam, I.A.S.,
Joint Secretary to Government

To

The Additional Chief Secretary/Chairman and Managing Director,
Tamil Nadu Urban Infrastructure Financial Services Ltd., Chennai - 28.
The Secretary, Industries, Invest Promotion and Commerce Department,
Secretariat, Chennai -9(w.e).
The Managing Director, Tamil Nadu Water Supply and Drainage Board,
Chennai -5 (w.e).
The Managing Director,
State Industries Promotion Corporation of Tamil Nadu Limited,
Chennai -8.
The Director, Confederation of Indian Industry, Chennai -32 (w.e).
The Director of Municipal Administration, Chennai -28 (w.e).
The Director of Town Panchayat, Chennai - 28 (w.e).
The CEO, Tamil Nadu Water Investment Company Ltd.,
No.86, Mount Road, Guindy, Chennai - 32 (w.e)
The Principal Secretary / Chairman and Managing Director,
Tamil Nadu Small Industries Development Corporation Ltd., Chennai - 32.

Sir,

Sub: SIPCOT - Request for supply of Recycled water
(TTRO water) for use of Industries in various Industrial
Parks - Meeting on **18.10.2024 at 12.30 P.M** -
Regarding.

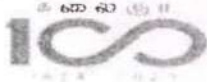
Ref: From the Managing Director, SIPCOT, letter
No.SIPCOT/CIVIL/Recycled water/2024, dated 25.09.2024
(addressed to Additional Chief Secretary/Chairman and
Managing Director, Tamil Nadu Urban Infrastructure
Financial Services Ltd).

I am directed to invite attention to the reference cited (copy enclosed)
and to state that a meeting is scheduled on **18.10.2024 at 12.30 p.m.** at the
Municipal Administration and Water Supply Department Conference Hall on the
8th Floor of Namakkal Kavingnar Maaligai, Secretariat, Chennai -9, under the
Chairmanship of the Principal Secretary to Government, Municipal Administration
and Water Supply Department, regarding the request for supply of Recycled
water (TTRO water) for use of Industries in various Industrial Parks.

2. I am to request you to make it convenient to attend the meeting with
relevant particulars.

Yours faithfully,

[Signature]
for Joint Secretary to Government
17/10/24



SIPCOT

18.10.2024
@ 12.30 pm
Troad Ecmw
Kochi

Lr No. SIPCOT/CIVIL/Recycled water/2024

dated 25.09.24

To

The Additional Chief Secretary /
Chairman & Managing Director,
TNUISL,
19, T.P Scheme Road,
Raja Annamalaipuram,
Chennai - 600028.



Respected Sir,

Sub: SIPCOT-CIVIL-IWC-Providing water supply to the industries located in various Industrial Parks - Reuse of recycled water (TTRO water) for industrial process - Details of requirement of TTRO water for various SIPCOT Industrial Parks in Tamilnadu - Furnished-Reg.

We need to conduct a meeting soon on this issue

29/9/24

Industrial growth in Tamilnadu is marching on with the acceleration of setting up new industries in both government and private sectors. SIPCOT is providing the accelerated thrust by creating new industrial parks and expanding the existing industrial parks in various parts of Tamilnadu.

The main activity of the SIPCOT is the establishment of Industrial Complexes/Parks by providing basic and comprehensive infrastructure facilities for the industries to set up their units.

To begin with, all the SIPCOT industrial parks were provided with either surface or subsurface water supplies. In addition, industries are also permitted to draw surface/subsurface water from their sources within their complexes to augment their water supply needs, besides other captive water sources.

As far as the process water demand is concerned, the Pharmaceutical industries, Food industries and other industries having predominantly human centric activities require fresh water for their operation. For all other

State Industries Promotion Corporation of Tamil Nadu Limited

(A Government of Tamil Nadu Undertaking)

CIN I U74999TN1971SGC005967

Regd. Office : 19-A, Rukmani Lakshmipathy Road, Post Box No. 7223, Egmore, Chennai - 600 008.

Phone : 4526 1777, Fax : 4526 1796 Website : www.sipcot.tn.gov.in



SIPCOT

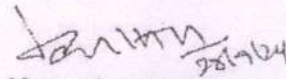
industries, the tertiary treated water of the required quality, sourced from the sewage treatment plants of the local bodies may be supplied to meet their process & other industrial water demand.

The potential of treated wastewater from the Sewage Treatment of Plants (STPs) of CMWSSB / ULBs is yet to be fully utilized. SIPCOT has already using recycled water (TTRO water) for industrial purposes in the existing SIPCOT parks in Kancheepuram district, in coordination with CMWSSB, and has also initiated the process of extending the reuse of recycled water in the proposed SIPCOT parks in various districts.

The details of requirement of tertiary treated water for various SIPCOT Industrial Parks in other parts of Tamilnadu are enclosed herewith (Annexure).

This is submitted for favour of kind information please.

Yours Sincerely,


28/10/24
Managing Director.

State Industries Promotion Corporation of Tamil Nadu Limited

(A Government of Tamil Nadu Undertaking)

CIN I U74999TN1971SGC005967

Regd. Office : 19-A, Rukmani Lakshminpathy Road, Post Box No. 7223, Egmore, Chennai - 600 008.

Phone : 4526 1777, Fax : 4526 1796 Website : www.sipcot.tn.gov.in

Annexure

The details of requirement of Tertiary Treated Water for various SIPCOT Industrial Parks

(SIPCOT Head Office Liaison Officer: A.Abdul Rasheed, Consultant Technical, 9384067749)

(SIPCOT Head Office Liaison Officer: A.Abdul Rasheed, Consultant Technical , 9384007745)							
S. No	Name of Industrial Parks	Name of the Project Officer/Contact Number	Total water require ment.In mld	Existing/ Proposed arrangements by SIPCOT		Requirement of Tertiary treated water for Industrial process in mld	Remarks
				Source	Quantity in mld		
Existing Parks							
1	Bargur	V.Sindhu 8610462125	4.80	Sub surface water Thenpennai River- TWAD Board	1.88	3.00	Tirupppathur S
2	Manamadurai	R.Shanmuga sundaram 9486018834	1.00	Borewell water- SIPCOT	1.00	1.00	Sivagangal S
3	Ranipet	P.Maheswari 9443747170	9.00	Subsurface water - River Palar-SIPCOT	9.00	7.00	Vellore ST
4	Cuddalore	R.Tamilselvi 9442867320	10.00	Borewell-SIPCOT	10.00	8.00	Cuddalore S
5	Pudukkottai	A.Sureej Babu 9659323853	1.00	River Cauvery- TWAD Board & Open wells-SIPCOT	1.00	1.00	Pudukkottai S
6	Manapparai	J.Pradeep 9787404111	7.00	Sub surface water - River Cauvery - TWAD Board (Proposed) Borewell-SIPCOT Proposed tapping from TNPL (Temporary Source) by SIPCOT	7.00 0.50 2.50	5.00	Tiruchirappal Panjappur S
7	Tindivanam	R. Tamilselvi/ 9442867320	4.00	Open well-SIPCOT Sub surface water- Cheyyar River - TWAD Board (Proposed)	2.00 2.40	3.50	Tindivanam S (Under Construction
8	Poomalaikundu (Theni)	S.Chitrarajvel 9443110600	5.00	Surface water - Mullaiperiyar River TWAD Board	5.00	2.00	Theni STP
9	E.Kumaralinga puram (Virudhunagar)	S.Nasir Ahamed 9487258051	4.00	Surface water - CWSS- TWAD Board (Under construction) From other sources (Proposed)	2.50 1.50	2.00	Sattur STP

	Project Officer/Contact Number	Total water requirement in mld	Existing/ Proposed arrangements by SIPCOT		Requirement of Tertiary treated water for Industrial process in mld	Remarks	
			Source	Quantity in mld			
10	Adhagappadi Phase-I &II (Dharmapuri)	R.Rajkumar 9842199445	16.75	Surface water- Existing Hogenakkal-I CWSS -TWAD Board (Proposed)	2.00	13.50	Dharmapuri & Krishnagiri STP
			Surface water - Hogenekkai Phase-II proposed	14.75			
11	Iluppaikudi (Sivagangai)	G.P. Shankar 8220292544	4.00	Surface water - CWSS Work- TWAD Board (Under progress)	0.94	3.00	Madurai Sakkimangalam STP- (Proposed)
			TTRO water - Madurai Sakkimangalam STP- (Proposed)	3.00			
Total			66.55		66.97	49.00	

New/Upcoming Industrial parks

1	Thalaivasal (Kallakuruchi)	G.Balamurall 9344248177	5.00	Surface water - AIIRLIVAS dedicated Scheme- TWAD Board (Proposed)	3.00	2.00	Ulundurpettal STP
2	Silanatham, Allikulam, Valpar & E Velaythupuram (Thoothukkudi)	A.Joan Mary Selvarani 9487280309	50.00	Freshwater from 60 mld Desalination Plant	10.00	40.00	Thoothukkudi & Tirunelveli STPs
3	Vembur (Thoothukkudi)	A.Joan Mary Selvarani 9487280309	10.00	-	-	8.00	Madurai Avaniapuram STP
4	Manakkudi & Sekkaralkottai (Ramanathapuram)	G.P. Shankar 8220292544	4.00	-	-	3.00	Ramanathapuram STP
Total			69.00		13.00	53.00	

WATER REQUIREMENT FOR INDUSTRIAL ESTATES

District	Sl.No.	Name of the Industrial Estates	Total Extent	Requirement of water in litre per day
Kancheepuram	1	Thirumudivakkam (Main)	201.11	500000
	2	Thirumudivakkam (WIP)	11.48	100000
	3	Kancheepuram	37.95	40000
Tiruvallur	4	Gummidipoondi	25.24	50000
Ranipet	5	Arakonam	51.74	81000
	6	Mukuntharayapuram	86.19	35500
	7	Vannivedu	16.44	6000
	8	Mulluvadi & Nagaleri	20.00	23500
Thirupathur	9	Vinnamangalam	10.49	20500
	10	Vaniyampadi	7.08	13000
	11	Minnur	9.75	10000
Vellore	12	Katpadi	19.48	25500
Thiruvannamalai	13	Thiruvannamalai	15.56	14500
Krishnagiri	14	Uthangarai	41.282	7500
	15	Krishnagiri(G)	34.52	60000
	16	Bargur	31.642	40000
	17	Pollupalli	57.3	100000
	18	Hosur (Govt)	12.34	40000
	19	Hosur (New)	24.411	80000
Dharmapuri	20	Dharmapuri(G)	20.28	50000
	21	Kadagathur	7.02	30000
	22	Parvathanahalli	29.89	30000

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District	Sl.No.	Name of the Industrial Estates	Total Extent	Requirement of water in litre per day
Salem	23	Karuppur (WIP)	51.24	77000
	24	Sooramangalam	27.5	24000
	25	Veerapandi	9.79	11500
Coimbatore	26	Kurichi	88.43	121000
	27	Kalapatti	13.46	14500
Tiruppur	28	Rasathavalasu	51.8	33500
Cuddalore	29	Vadalur	26.22	31500
	30	Cuddalore	15.6	31000
Villupuram	31	Pattanam	60.55	35500
	32	Venmani Athur	36.82	14500
Trichy	33	Thiruverumbur	74.5	39000
	34	Ariyamangalam	17.64	25000
	35	Kumbakudi	24.46	25000
	36	Valavanthankottai WIP	51.7	52500
	37	Valavanthankottai	179.02	50000
Ariyalur	38	Mallur	25.34	13000
Perambalur	39	Elambalur	44.48	46500
Karur	40	Athur (Karur)	36.29	49500
	41	Karur(Vellapatti)	26.63	21000
Namakkal	42	Namakkal	10.09	23500
	43	Vettambadi	15.34	34000
	44	Thiruchengodu	9.18	14500

District	Sl.No.	Name of the Industrial Estates	Total Extent	Requirement of water in litre per day
Pudukkottai	45	Pudukkottai (G)	23.18	23500
	46	Pudukkottai (SIPCOT)	51.45	20000
	47	Mathur (Old)	23.70	53500
Madurai	48	Kappalur	53.464	225000
	49	Kappalur WIP	35.37	52000
Dindigul	50	Dindigul	39.91	44000
	51	Battlagundu	16.26	45000
Theni	52	Theni	26.59	24000
	53	Andipatti	22.34	13000
	54	Marikundu	79.4	37500
Virudhunagar	55	Rajapalayam	40.95	20000
Total water requirement in litre per day				2702000



State Industries Promotion Corporation of Tamil Nadu Limited

(A Government of Tamil Nadu Undertaking)

CIN : U74999TN1971SGC005967

Lr.No. IWD/WC/SVG/WSY/2021

Dated. 11.01.2023

To

✓
The Managing Director,
TWAD Board,
No.31, kamarajar Salai,
Chepauk,
Chennai-600 005.

/RPAD&MAIL/

Sir

Sub: SIPCOT - CD/IWC - Providing 0.94 MLD of water supply to the upcoming new SIPCOT Sivagangai Industrial park- under deposit work to TWAD Board – present status of work and the DPR cost - requested - Reg.

Ref:

1. T.O.Lr.No.CW / IWD / WC / SVG / Wsy / 2021, dt.25.02.2021, 02.07.2021 & 15.09.2021 addressed to MD, TWAD, Chennai – 5
2. T.O.Lr.No. CW / Sivagangai / WS / 2021, dt.16.09.2022.

We invite your kind attention to the above reference letters cited wherein we have requested 0.94 MLD of water supply to the upcoming new SIPCOT Industrial park, Sivagangai. SIPCOT had already remitted the upfront investigation charges of Rs.7.00 lakh (Rupees seven lakh only) on 07.10.2021.

Hence it is once again requested to speed up the investigation works for Providing 0.94 MLD of water supply to the upcoming new SIPCOT Industrial park, Sivagangai and furnish the present status of the DPR preparation work and the DPR cost to this office early.

Sd/-

MANAGING DIRECTOR

SUPERINTENDING ENGINEER

Regd. Office : 19-A, Rukmani Lakshmipathy Road, Post Box No. 7223, Egmore, Chennai - 600 008.

Phone : 45261777, **Fax :** 45261796, **Website :** www.sipcot.tn.gov.in



State Industries Promotion Corporation of Tamil Nadu Limited

(A Government of Tamil Nadu Undertaking)

CIN : U74999TN1971SGC005967

Copy to

1. The Chief Engineering, - For information and follow up action.
TWAD Board,
No.1/1, Sambakulam,
Ganesh Nagar,
Opposite to Mattuthavani Bus Stand,
Madurai - 625 007.
2. The Superintending Engineer, - For information and follow up action.
TWAD Board,
MDT Circle,
No.1/1 Samabakulam, Ganesh Nagar,
Opposite to Mattuthavani Bus stand,
Madurai 625 007.
3. The Project Officer, - For information and follow up action.
SIPCOT Industrial Park,
Manamadurai.

ocmms.tn.gov.in/OCMMS/indUser/openIndustryHome#country2

Tamil Nadu
State Pollution Control Board

Online Consent Management & Monitoring System
Ministry of Environment, Forest and Climate Change
Government of India

Home Dashboard Consent Management Waste Management Knowledge Base Logout

Industry Profile
Apply For Consent
Change Password
Delete Application
Consent Fee Calculator
Online Payment Verification
View Notices 0

Send us your **feedback and suggestions**

click here for any kind **complaints or query**

Welcome SIPCOT INDUSTRIAL PARK AT SIVAGANGAI Date : 23-5-2025

If you want to edit some data click on Industry Profile

In-progress Application **Completed Application**

Application No	Submission Date	Application For	Application Type	Certificate For	Status	Scrutiny Status By TNPCB	Scrutiny Completion Date By TNPCB	Keeping With
64650072	17-02-2025 04:18	Air & Water	CTE	new	In-Progress	In-Process		SIVASANGARI AE SVG

ENVIRONMENTAL MANAGEMENT CELL

1. INTRODUCTION:

- 1.1. For effective implementation and monitoring of environmental management system, it is necessary to have a permanent organizational set-up as Environmental Management Cell (EMC). This is done by assigning responsibility to the concerned personnel for implementation of environmental control measures.
- 1.2. SIPCOT Environmental Management Cell consist of 7 team members headed by SIPCOT Managing Director, General Manager (Projects), Manager and two Environmental Consultants assisted by two Office Staffs which will enforce and implement the Environmental Plan.
- 1.3. The Organization of Environmental Management Cell (EMC) proposed is given in **Figure - 1**.

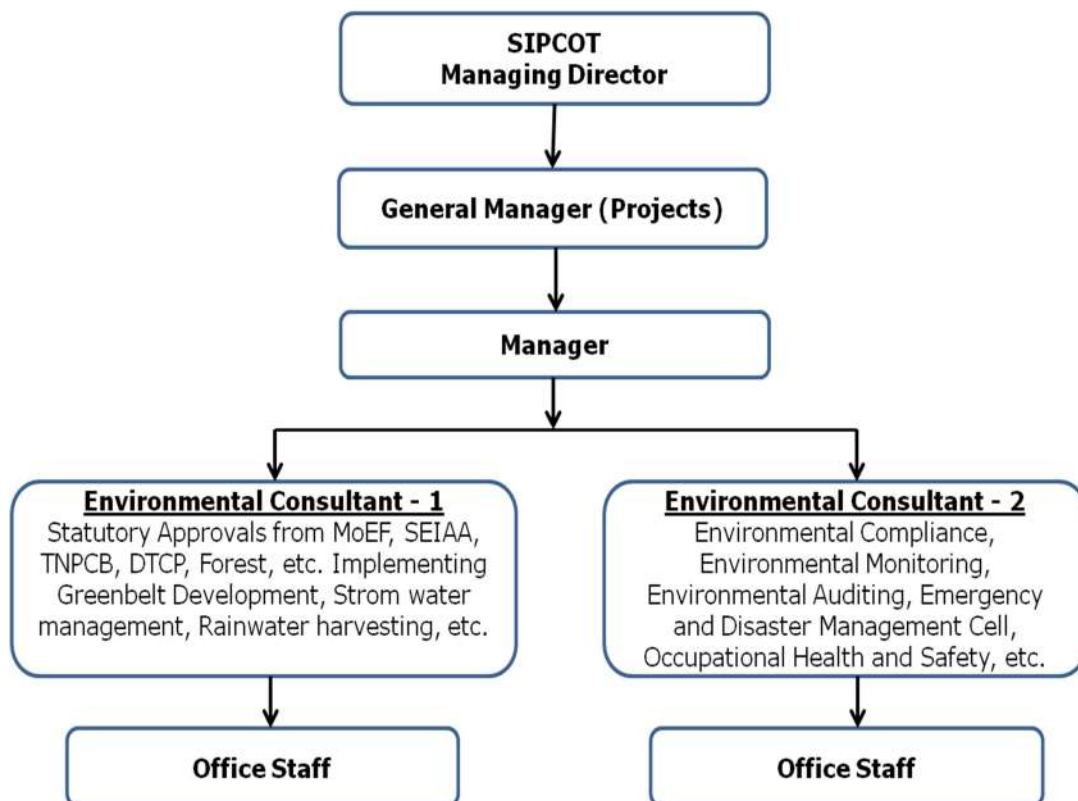


Figure - 1 Organogram for Environmental Management Cell

2. RESPONSIBILITIES OF ENVIRONMENTAL MANAGEMENT CELL:

- 2.1. Environmental Management Cell (EMC) shall obtain all applicable statutory clearances and approvals as mandated by the regulatory authorities and maintain the Industrial Parks in compliance with all applicable rules and regulations.
- 2.2. Other responsibilities of the cell will include:
 - a) Review the progress of regulatory compliance of SIPCOT and initiate necessary action for the compliance of the same.
 - b) The EMC will review, implement, update, and comply with the Environment Policy to ensure the effective implementation of environmental safeguard measures.
 - c) Keeping the Board updated on regular basis about the activities carried out under environmental measures and suggests measures to improve environment preservation and protection.
 - d) Encourages allottee units to implement, adopt and use of green and sustainable technologies such as Solar, Wind, Thermal, Biomass, Electric & Hybrid vehicles, etc. to achieve more resource-efficient, clean and resilient growth towards reducing pollution during their process, manufacturing and transportation of goods and encourages energy recovery for self sustainability from their Industrial process.
 - e) Mandate industries to reduce the use of one time use plastics, Styrofoam, and other plastic material during the packing and delivery of goods.

Table – 1: Roles and responsibilities of EMC

S.No.	Designation	Responsibilities
1	Managing Director	<ul style="list-style-type: none">➤ Responsible for overall environmental management.➤ Regularly conduct meeting with EMC and take feedback regarding all the activities performed under Environmental Management and give directions to succeeding component.➤ Approval of funds for carrying out environmental management activities.
2	GM – Projects	<ul style="list-style-type: none">➤ Keep aware about all the activities performed under EMC in the industrial parks.➤ Issuing direction to Project officers for implementing Greenbelt development, Storm water management, rain water harvesting, etc.➤ To deal with legal entity pertaining to environmental issues.
3	Manager	<ul style="list-style-type: none">➤ To prepare and allocate budget for Environment Management Plan.➤ Ensuring compliance to the conditions prescribed by statutory authority.➤ Mandating member industries to comply with the conditions stipulated in the statutory approvals and non-compliance if any shall be reported to GM and immediately required action will be taken.
4	Environmental Consultants (Two)	<ul style="list-style-type: none">➤ Obtaining Statutory Approvals from MoEF&CC / SEIAA / TNPCB, etc.➤ Addressing the various queries received from statutory authorities on environmental front.➤ Submitting Environmental compliance report and coordinating with project officers for Environmental monitoring, audit, etc.➤ Compliance with the environmental laws and implications which dynamically changes from time to time due to the emerging challenges.



MADURAI

05

MADURAI

TUESDAY 14.01.2025



STATE INDUSTRIES PROMOTION CORPORATION OF TAMIL NADU LIMITED

19-A, RUKMANI LAKSHMIPATHY ROAD,
EGMORE, CHENNAI-600 008.
CIN U74999TN1971SGC005967

SIPCOT INDUSTRIAL PARK

ENVIRONMENTAL CLEARANCE

Environmental Clearance has been obtained for the proposed Development of Industrial Park at Illupaikudi, Kilathari and Arasanoor Villages, Sivagangai Taluk, Sivagangai District, Tamil Nadu from the State Environment Impact Assessment Authority (SEIAA), Tamil Nadu vide **EC Identification No. EC24B3813TN5221284N, File No. 11623 dated 12.01.2025.**

The Environmental Clearance (EC) letter can be downloaded from the SIPCOT website www.sipcot.tn.gov.in. The Clearance Letter is also available in the website of Ministry of Environment, Forest and Climate Change (MoEF&CC)/SEIAA.

DIPR/41/DISPLAY/2025

MANAGING DIRECTOR



தமிழ்நாடு தொழில் முன்னேற்ற நிறுவனம்

19-ஏ, ருக்குமணி இலட்சுமிபதி சாலை,
எழும்பூர், சென்னை - 600 008.

CIN U74999TN1971SGC005967

சிப்காட் தொழிற் பூங்கா

சுற்றுச்சூழல் இசைவாணை

மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையம்,
தமிழ்நாடு அடையாள எண்: EC24B3813TN5221284N,
கோப்பு எண்: 11623 தேதி: 12.01.2025 மூலம் சிவகங்கை
மாவட்டம், சிவகங்கை வட்டம், இலுப்பக்குடி, கிளாதரி
மற்றும் அரசனூர் கிராமங்களில் சிப்காட் தொழிற் பூங்கா
அமைப்பதற்கான சுற்றுச்சூழல் இசைவாணை
வழங்கியுள்ளது.

இவ் விசைவாணையின் முழுவிவரங்களை
www.sipcot.tn.gov.in என்னும் சிப்காட் இணையதளத்திலும்,
சுற்றுச்சூழல், வனம் மற்றும் காலநிலை மாற்றம்
அமைச்சகம் மற்றும் மாநில சுற்றுச்சூழல் தாக்க
மதிப்பீட்டு ஆணையத்தின் இணையதளத்திலும்
பெற்றுக்கொள்ளலாம்.

செ.ம.தொ.இ/41/வனரகலை/2025

மேலாண்மை இயக்குநர்



State Industries Promotion Corporation of Tamil Nadu Limited

(A GOVERNMENT OF TAMILNADU UNDERTAKING)

Project Office: SIPCOT INDUSTRIAL COMPLEX, Manamadurai

Sivagangal Main Road, Manamadurai, Sivagangal District, Tamil Nadu. 630 606

☎ 04574 - 258022 CIN:U74999TN1971SGC005967 e-mail : posvg@sipcot.in

Regd. Office: 19-A, RukmaniLakshmiPathy Road, Post Box No. 7223, Egmore, Chennai - 600 008.

Phone: 044-28554787 Fax : 044-28513978 Website : www.sipcot.com

To,

Date: 21.01.2025

உள்ளாட்சி அமைப்புகள்/பஞ்சாயத்து/நகராட்சி,
சிறப்பு அலுவலர்கள்,
சிவகங்கை.

ஐயா,

பொருள்: சிப்காட் - சிவகங்கை மாவட்டம், சிவகங்கை வட்டம், இலுப்பக்குடி, கிளாதரி மற்றும் அரசனூர் கிராமங்களில் மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்திடம் சுற்றுச்சூழல் அனுமதி பெறப்பட்டது சமர்ப்பித்தல் தொடர்பாக.

குறிப்பு: மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையத்தின் சுற்றுச்சூழல் அனுமதி அடையாள எண் EC24B3813TN5221284N நாள் 12.01.2025.

மாநில சுற்றுச்சூழல் தாக்க மதிப்பீட்டு ஆணையம், தமிழ்நாடு அடையாள எண்: EC24B3813TN5221284N, கோப்பு எண்: 11623 தேதி: 12.01.2025 மூலம் சிவகங்கை மாவட்டம், சிவகங்கை வட்டம், இலுப்பக்குடி, கிளாதரி மற்றும் அரசனூர் கிராமங்களில் சிப்காட் தொழிற் பூங்கா அமைப்பதற்கான சுற்றுச்சூழல் இசைவாணை வழங்கியுள்ளது.

சுற்றுச்சூழல் அனுமதியில் குறிப்பிடப்பட்டுள்ள நிபந்தனைகளுக்கு இணங்க, திட்ட முன்மொழிபவர் சுற்றுச்சூழல் அனுமதியின் நகலை உள்ளாட்சி அமைப்புகள், பஞ்சாயத்து மற்றும் நகராட்சி அமைப்புகளின் தலைவர்களிடம் சமர்ப்பிக்க வேண்டும். மேலும், மேற்குறிப்பிட்ட அமைப்புகள் 30 நாட்களுக்கு சுற்றுச்சூழல் அனுமதியை பொதுமக்களுக்கு காட்சிப்படுத்த வேண்டும்.

இது சம்பந்தமாக, சுற்றுச்சூழல் அனுமதியின் நகலை உங்கள் பார்வைக்காக இணைத்துள்ளோம்.


திட்ட அலுவலர்,
சிப்காட் தொழிற் பூங்கா,
சிவகங்கை

இணைப்பு: மேலே குறிப்பிடப்பட்டுள்ளபடி.

செ. செ. டி. அனுப்புகை எழுத்தர்
உள்ளாட்சி ஒன்றியம்
சிவகங்கை.
22/1/25 9789339605





TC-12310

**TEST REPORT**

Page : 1 of 1

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Atmospheric Pollution

Sample Name : Ambient Air

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Project Area

Environmental Condition : Temperature (°C) : 29.0 | Humidity (%) : 55.0

Sampling Method & Plan : IS 5182 Part 5 & Part 14

ULR : TC1231025000016404F

Report No. : HECS/AP/140/200325

Sample ID No : 200325407

Sampling Date : 21/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : NA

S.No.	Test Parameters	Units	Results	Test Method	NAAQ Standards : 2009	
Discipline : Chemical						
1	Arsenic	ng/m ³	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	6 (Annual)	6 (Annual)
2	Nickel	ng/m ³	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	20 (Annual)	20 (Annual)
3	Benzene	µg/m ³	BLQ (LOQ: 0.1)	IS 5182 Part 11: 2006	5 (Annual)	5 (Annual)
4	Benzo (a) pyrene	ng/m ³	BLQ (LOQ: 0.1)	IS : 5182 Part 12: 2004	1 (Annual)	1 (Annual)
5	Ammonia as NH ₃	µg/m ³	BLQ(LOQ 5)	IS 5182 (Part 25) 2018	400 (24 hours)	100 (Annual)
6	Carbon Monoxide (CO)	mg/m ³	BLQ(LOQ 0.05)	IS 5182 (Part 10) Clause 4 1999	4 (1 hours)	2 (8 hours)
7	Nitrogen dioxides as NO ₂	µg/m ³	22.75	IS 5182 (Part 6) 2006	80 (24 hours)	40 (Annual)
8	Ozone as O ₃	µg/m ³	BLQ(LOQ 10)	IS 5182 (Part 9) 1974	180 (1 hours)	100 (8 hours)
9	Particulate matter (Size less than 10 µm)	µg/m ³	84.63	IS 5182 (Part 23) 2006	100 (24 hours)	60 (Annual)
10	Particulate matter (Size less than 2.5 µm)	µg/m ³	26.93	IS 5182 (Part 24) 2019	60 (24 hours)	40 (Annual)
11	Sulphur dioxide as SO ₂	µg/m ³	10.06	IS 5182 (Part 2) 2001	80 (24 hours)	50 (Annual)
12	Lead	µg/m ³	BLQ (LOQ: 0.002)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	1 (24 hours)	0.5 (Annual)

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m³- Micrograms per cubic meter, mg/m³- Milligrams per cubic meter, ng/m³- Nanograms per cubic meter.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report

D.Anusuya

Lab Manager

Authorized Signatory



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT
Address of the Client : Sivagangai
Group : Atmospheric Pollution
Sample Name : Ambient Air
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.
Sample Location : Project Area
Environmental Condition : Temperature (°C) : 29.0 | Humidity (%) : 55.0
Sampling Method & Plan : IS 5182 Part 5 & Part 14

Report No. : HECS/AP/140/200325/N
Sample ID No : 200325407
Sampling Date : 21/03/2025
Received Date : 22/03/2025
Commenced Date: 22/03/2025
Completed On : 05/04/2025
Report Date : 05/04/2025
Sample Qty : NA

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	TVOC	ppmv	BLQ(LOQ 0.1)	HECS-G/ENV/AAQ/SOP/005 Issue No.:01 Issue Date:02:07 2020

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, ppmv- Parts per million by Volume.

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Atmospheric Pollution

Sample Name : Ambient Air

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Pappagudi

Environmental Condition : Temperature (°C) : 30.0 | Humidity (%) : 54.0

Sampling Method & Plan : IS 5182 Part 5 & Part 14

ULR : TC1231025000016405F

Report No. : HECS/AP/141/200325

Sample ID No : 200325408

Sampling Date : 21/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : NA

S.No.	Test Parameters	Units	Results	Test Method	NAAQ Standards : 2009	
Discipline : Chemical						
1	Arsenic	ng/m³	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	6 (Annual)	6 (Annual)
2	Nickel	ng/m³	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	20 (Annual)	20 (Annual)
3	Benzene	µg/m³	BLQ (LOQ: 0.1)	IS 5182 Part 11: 2006	5 (Annual)	5 (Annual)
4	Benzo (a) pyrene	ng/m³	BLQ (LOQ: 0.1)	IS : 5182 Part 12: 2004	1 (Annual)	1 (Annual)
5	Ammonia as NH3	µg/m³	13.74	IS 5182 (Part 25) 2018	400 (24 hours)	100 (Annual)
6	Carbon Monoxide (CO)	mg/m³	BLQ(LOQ 0.05)	IS 5182 (Part 10) Clause 4 1999	4 (1 hours)	2 (8 hours)
7	Nitrogen dioxides as NO2	µg/m³	24.75	IS 5182 (Part 6) 2006	80 (24 hours)	40 (Annual)
8	Ozone as O3	µg/m³	19.53	IS 5182 (Part 9) 1974	180 (1 hours)	100 (8 hours)
9	Particulate matter (Size less than 10 µm)	µg/m³	75.93	IS 5182 (Part 23) 2006	100 (24 hours)	60 (Annual)
10	Particulate matter (Size less than 2.5 µm)	µg/m³	31.52	IS 5182 (Part 24) 2019	60 (24 hours)	40 (Annual)
11	Sulphur dioxide as SO2	µg/m³	14.81	IS 5182 (Part 2) 2001	80 (24 hours)	50 (Annual)
12	Lead	µg/m³	BLQ (LOQ: 0.002)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	1 (24 hours)	0.5 (Annual)

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m³- Micrograms per cubic meter, mg/m³- Milligrams per cubic meter, ng/m³- Nanograms per cubic meter.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report



D.Anusuya
Lab Manager
Authorized Signatory

TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT
Address of the Client : Sivagangai
Group : Atmospheric Pollution
Sample Name : Ambient Air
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : Pappagudi
Environmental Condition : Temperature (°C) : 30.0 | Humidity (%) : 54.0
Sampling Method & Plan : IS 5182 Part 5 & Part 14

Report No. : HECS/AP/141/200325/N
Sample ID No : 200325408
Sampling Date : 21/03/2025
Received Date : 22/03/2025
Commenced Date : 22/03/2025
Completed On : 05/04/2025
Report Date : 05/04/2025
Sample Qty : NA

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	TVOC	ppmv	BLQ(LOQ 0.1)	HECS-G/ENV/AAQ/SOP/005 Issue No.:01 Issue Date:02:07 2020

Note:- BLQ - Below the Limit of Quantification; LOQ- Limit of Quantification, ppmv- Parts per million by Volume.

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT
Address of the Client : Sivagangai

ULR : TC1231025000016406F
Report No. : HECS/AP/142/200325
Sample ID No : 200325409
Sampling Date : 21/03/2025

Group : Atmospheric Pollution
Sample Name : Ambient Air
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.
Sample Location : Near Kiranur
Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 53.0
Sampling Method & Plan : IS 5182 Part 5 & Part 14

Received Date : 22/03/2025
Commenced Date : 22/03/2025
Completed On : 05/04/2025
Report Date : 05/04/2025
Sample Qty : NA

S.No.	Test Parameters	Units	Results	Test Method	NAAQ Standards : 2009	
Discipline : Chemical						
1	Arsenic	ng/m³	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	6 (Annual)	6 (Annual)
2	Nickel	ng/m³	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	20 (Annual)	20 (Annual)
3	Benzene	µg/m³	BLQ (LOQ: 0.1)	IS 5182 Part 11: 2006	5 (Annual)	5 (Annual)
4	Benzo (a) pyrene	ng/m³	BLQ (LOQ: 0.1)	IS : 5182 Part 12: 2004	1 (Annual)	1 (Annual)
5	Ammonia as NH3	µg/m³	15.20	IS 5182 (Part 25) 2018	400 (24 hours)	100 (Annual)
6	Carbon Monoxide (CO)	mg/m³	BLQ(LOQ 0.05)	IS 5182 (Part 10) Clause 4 1999	4 (1 hours)	2 (8 hours)
7	Nitrogen dioxides as NO2	µg/m³	27.19	IS 5182 (Part 6) 2006	80 (24 hours)	40 (Annual)
8	Ozone as O3	µg/m³	17.71	IS 5182 (Part 9) 1974	180 (1 hours)	100 (8 hours)
9	Particulate matter (Size less than 10 µm)	µg/m³	86.33	IS 5182 (Part 23) 2006	100 (24 hours)	60 (Annual)
10	Particulate matter (Size less than 2.5 µm)	µg/m³	33.63	IS 5182 (Part 24) 2019	60 (24 hours)	40 (Annual)
11	Sulphur dioxide as SO2	µg/m³	17.61	IS 5182 (Part 2) 2001	80 (24 hours)	50 (Annual)
12	Lead	µg/m³	BLQ (LOQ: 0.002)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	1 (24 hours)	0.5 (Annual)

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m³- Micrograms per cubic meter, mg/m³- Milligrams per cubic meter, ng/m³- Nanograms per cubic meter.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report



D.Anusuya
Lab Manager
Authorized Signatory

TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT
Address of the Client : Sivagangai
Group : Atmospheric Pollution
Sample Name : Ambient Air
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.
Sample Location : Near Kiranur
Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 53.0
Sampling Method & Plan : IS 5182 Part 5 & Part 14

Report No. : HECS/AP/142/200325/N
Sample ID No : 200325409
Sampling Date : 21/03/2025
Received Date : 22/03/2025
Commenced Date : 22/03/2025
Completed On : 05/04/2025
Report Date : 05/04/2025
Sample Qty : NA

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	TVOC	ppmv	BLQ(LOQ 0.1)	HECS-G/ENV/AAQ/SOP/005 Issue No.:01 Issue Date:02:07 2020

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, ppmv- Parts per million by Volume.

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Atmospheric Pollution
Sample Name : Ambient Air
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : Tamarakki
Environmental Condition : Temperature (°C) : 29.0 | Humidity (%) : 55.0
Sampling Method & Plan : IS 5182 Part 5 & Part 14

ULR : TC1231025000016407F
Report No. : HECS/AP/143/200325
Sample ID No : 200325410
Sampling Date : 21/03/2025

Received Date : 22/03/2025
Commenced Date : 22/03/2025
Completed On : 05/04/2025
Report Date : 05/04/2025
Sample Qty : NA

S.No.	Test Parameters	Units	Results	Test Method	NAAQ Standards : 2009	
Discipline : Chemical						
1	Arsenic	ng/m ³	BLQ (LOQ: 2.0)	HECS-G/TNS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	6 (Annual)	6 (Annual)
2	Nickel	ng/m ³	BLQ (LOQ: 2.0)	HECS-G/TNS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	20 (Annual)	20 (Annual)
3	Benzene	µg/m ³	BLQ (LOQ: 0.1)	IS 5182 Part 11: 2006	5 (Annual)	5 (Annual)
4	Benzo (a) pyrene	ng/m ³	BLQ (LOQ: 0.1)	IS : 5182 Part 12: 2004	1 (Annual)	1 (Annual)
5	Ammonia as NH3	µg/m ³	BLQ(LOQ 5)	IS 5182 (Part 25) 2018	400 (24 hours)	100 (Annual)
6	Carbon Monoxide (CO)	mg/m ³	BLQ(LOQ 0.05)	IS 5182 (Part 10) Clause 4 1999	4 (1 hours)	2 (8 hours)
7	Nitrogen dioxides as NO2	µg/m ³	16.99	IS 5182 (Part 6) 2006	80 (24 hours)	40 (Annual)
8	Ozone as O3	µg/m ³	BLQ(LOQ 10)	IS 5182 (Part 9) 1974	180 (1 hours)	100 (8 hours)
9	Particulate matter (Size less than 10 µm)	µg/m ³	83.03	IS 5182 (Part 23) 2006	100 (24 hours)	60 (Annual)
10	Particulate matter (Size less than 2.5 µm)	µg/m ³	26.09	IS 5182 (Part 24) 2019	60 (24 hours)	40 (Annual)
11	Sulphur dioxide as SO2	µg/m ³	7.81	IS 5182 (Part 2) 2001	80 (24 hours)	50 (Annual)
12	Lead	µg/m ³	BLQ (LOQ: 0.002)	HECS-G/TNS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	1 (24 hours)	0.5 (Annual)

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m³- Micrograms per cubic meter, mg/m³- Milligrams per cubic meter, ng/m³- Nanograms per cubic meter.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT
Address of the Client : Sivagangai
Group : Atmospheric Pollution
Sample Name : Ambient Air
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.
Sample Location : Tamarakki
Environmental Condition : Temperature (°C) : 29.0 | Humidity (%) : 55.0
Sampling Method & Plan : IS 5182 Part 5 & Part 14

Report No. : HECS/AP/143/200325/N
Sample ID No : 200325410
Sampling Date : 21/03/2025
Received Date : 22/03/2025
Commenced Date : 22/03/2025
Completed On : 05/04/2025
Report Date : 05/04/2025
Sample Qty : NA

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	TVOC	ppmv	BLQ(LOQ 0.1)	HECS-G/ENV/AAQ/SOP/005 Issue No.:01 Issue Date:02:07 2020

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, ppmv- Parts per million by Volume.

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Atmospheric Pollution

Sample Name : Ambient Air

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Mattur

Environmental Condition : Temperature (°C) : 30.0 | Humidity (%) : 56.0

Sampling Method & Plan : IS 5182 Part 5 & Part 14

ULR : TC1231025000016408F

Report No. : HECS/AP/144/200325

Sample ID No : 200325411

Sampling Date : 21/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : NA

S.No.	Test Parameters	Units	Results	Test Method	NAAQ Standards : 2009	
Discipline : Chemical						
1	Arsenic	ng/m ³	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	6 (Annual)	6 (Annual)
2	Nickel	ng/m ³	BLQ (LOQ: 2.0)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	20 (Annual)	20 (Annual)
3	Benzene	µg/m ³	BLQ (LOQ: 0.1)	IS 5182 Part 11: 2006	5 (Annual)	5 (Annual)
4	Benzo (a) pyrene	ng/m ³	BLQ (LOQ: 0.1)	IS : 5182 Part 12: 2004	1 (Annual)	1 (Annual)
5	Ammonia as NH ₃	µg/m ³	8.69	IS 5182 (Part 25) 2018	400 (24 hours)	100 (Annual)
6	Carbon Monoxide (CO)	mg/m ³	BLQ(LOQ0.05)	IS 5182 (Part 10) Clause 4 1999	4 (1 hours)	2 (8 hours)
7	Nitrogen dioxides as NO ₂	µg/m ³	16.43	IS 5182 (Part 6) 2006	80 (24 hours)	40 (Annual)
8	Ozone as O ₃	µg/m ³	20.78	IS 5182 (Part 9) 1974	180 (1 hours)	100 (8 hours)
9	Particulate matter (Size less than 10 µm)	µg/m ³	90.51	IS 5182 (Part 23) 2006	100 (24 hours)	60 (Annual)
10	Particulate matter (Size less than 2.5 µm)	µg/m ³	28.30	IS 5182 (Part 24) 2019	60 (24 hours)	40 (Annual)
11	Sulphur dioxide as SO ₂	µg/m ³	7.66	IS 5182 (Part 2) 2001	80 (24 hours)	50 (Annual)
12	Lead	µg/m ³	BLQ (LOQ: 0.002)	HECS-G/INS/SOP/ 041 Issue No.:01 Issue Date:01.03.2021	1 (24 hours)	0.5 (Annual)

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, µg/m³- Micrograms per cubic meter, mg/m³- Milligrams per cubic meter, ng/m³- Nanograms per cubic meter.

Remarks: The Tested Parameters as above are within the Limits of NAAQ Standards 2009.

End of Report



D.Anusuya
Lab Manager
Authorized Signatory

TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT
Address of the Client : Sivagangai
Group : Atmospheric Pollution
Sample Name : Ambient Air
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.
Sample Location : Mattur
Environmental Condition : Temperature (°C) : 30.0 | Humidity (%) : 56.0
Sampling Method & Plan : IS 5182 Part 5 & Part 14

Report No. : HECS/AP/144/200325/N
Sample ID No : 200325411
Sampling Date : 21/03/2025
Received Date : 22/03/2025
Commenced Date : 22/03/2025
Completed On : 05/04/2025
Report Date : 05/04/2025
Sample Qty : NA

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	TVOC	ppmv	BLQ(LOQ 0.1)	HECS-G/ENV/AAQ/SOP/005 Issue No.:01 Issue Date:02:07 2020

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, ppmv- Parts per million by Volume.

End of Report



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TEST REPORT

Page : 1 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Ground Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Near Kiranur

Environmental Condition : Temperature (°C) : 27.0 | Humidity (%) : 53.0

Sampling Method & Plan : IS 17614(Part-I):2021

ULR : TC1231025000016849F

Report No. : HECSL/WT/177/200325

Sample ID No : 200325413

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date: 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	IS 10500 : 2012	
					Acceptable Limits (Max)	Permissible Limits (Max)
Discipline : Chemical						
1	Bi carbonate	mg/l	524.6	IS 3025 Part 51: 2001	NA	NA
2	Boron as B	mg/l	BLQ(LOQ:0.1)	IS 3025 Part 57 -Curcumin Method: 2021	0.5	2.4
3	Calcium as Ca	mg/l	112.22	IS 3025 Part 40: 1991(EDTA Titrimetric Method)	75	200
4	Carbonate	mg/l	BLQ(LOQ:1.0)	IS 3025 Part 51: 2001	NA	NA
5	Chloride as Cl	mg/l	252.38	IS 3025 Part 32: 1988 (Argentometric Method)	250	1000
6	Cyanide as CN	mg/l	BLQ(LOQ:0.01)	IS 3025 Part 27 Sec I: 2021	0.05	No relaxation
7	Electrical Conductivity at 25°C	µS/cm	1960.0	IS 3025 Part-14: 2013	NA	NA
8	Fluoride as F	mg/l	0.43	APHA 23rd edition (Method 4500F-B , D): 2017	1.0	1.5
9	Iron as Fe	mg/l	0.032	IS 3025 (Part 53): 2003	1.0	No relaxation
10	Magnesium as Mg	mg/l	46.17	IS 3025 Part 46: 1994 (Volumetric Method using EDTA)	30	100
11	Nitrate as NO3	mg/l	2.93	APHA 23rd edition (Method 4500 NO3B): 2017	45	No relaxation
12	Colour	Hazen units	BLQ(LOQ:1.0)	IS 3025 (Part4): 2021	5	15
13	pH at 25°C	-	7.14	IS 3025(Part 11) : 2022 (Electrometric method)	6.5-8.5	No relaxation



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**TEST REPORT**

Page : 2 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Ground Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.

Sample Location : Near Kiranur

Environmental Condition : Temperature (°C) : 27.0 | Humidity (%) : 53.0

Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016849F

Report No. : HECSL/WT/177/200325

Sample ID No : 200325413

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date: 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	IS 10500 : 2012	
					Acceptable Limits (Max)	Permissible Limits (Max)
14	Potassium as K	mg/l	21.0	IS 3025 Part 45: 1993 (Flame emission Photometric Method)	NA	NA
15	Sodium as Na	mg/l	240.0	IS 3025 Part 45: 1993 (Flame emission Photometric Method)	NA	NA
16	Sulphate as SO ₄	mg/l	251.5	IS 3025 Part 24 Sec 1: 2022(Turbidity Method)(Turbidity Method)	200	400
17	Total dissolved solids	mg/l	1202.0	IS 3025 (Part 16): 1984	500	2000
18	Total Suspended Solids	mg/l	BLQ(LOQ:2.0)	IS 3025 (Part 17): 1984	NA	NA
19	Phosphorous as P	mg/l	BLQ(LOQ:0.02)	IS 3025 Part 31 Sec 1: 2022 (Stannous Chloride method)	NA	NA
20	Total hardness as CaCO ₃	mg/l	470.0	IS 3025 (Part 21): 2009	200	600
21	Turbidity, NTU	NTU	BLQ(LOQ:0.1)	IS 3025 (Part 10): 1984	1	5
22	Arsenic	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.01	No relaxation
23	Cadmium	mg/l	BLQ (LOQ: 0.001)	USEPA 200.8 : 1994	0.003	No relaxation
24	Chromium	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.05	No relaxation
25	Copper	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.05	1.5
26	Lead	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.01	No relaxation



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TEST REPORT

Page : 3 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Ground Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.

Sample Location : Near Kiranur

Environmental Condition : Temperature (°C) : 27.0 | Humidity (%) : 53.0

Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016849F

Report No. : HECSL/WT/177/200325

Sample ID No : 200325413

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date: 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	IS 10500 : 2012	
					Acceptable Limits (Max)	Permissible Limits (Max)
27	Mercury	mg/l	BLQ (LOQ: 0.0005)	USEPA 200.8 : 1994	0.001	No relaxation
28	Nickel	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.02	No relaxation
29	Zinc	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	5	15
30	Phenolic compounds as C6H5OH	mg/l	BLQ(LOQ:0.001)	IS 3025 Part 43 Sec 1: 2022	0.001	0.002
31	Anionic Surface Active agents as MBAS	mg/l	BLQ(LOQ:0.05)	APHA 23rd edition (Method 5540 B, C): 2017	0.2	1
32	Percent Sodium	%	51.07	HECS /WT/SOP/002:: 2019	NA	NA
33	Barium	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.7	No relaxation
34	Residual Sodium Carbonate	meq/l	BLQ(LOQ:1.0)	IS 11624: 2019	0.2	1.0
35	Ammonia as NH3	mg/l	BLQ(LOQ:0.02)	IS 3025 Part 34:Sec 2: 2021 (Nesslerization Method)	0.5	No relaxation
36	Sodium Adsorption Ratio(SAR)	Square root of (millimole/ litre)	4.8	IS 11624 : 2019	NA	NA
37	Dissolved oxygen	mg/l	6.5	IS 3025 (Part 38): 1989 (Titrimetric Method)	NA	NA



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**TEST REPORT**

Page : 4 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Ground Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.

Sample Location : Near Kiranur

Environmental Condition : Temperature (°C) : 27.0 | Humidity (%) : 53.0

Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016849F

Report No. : HECSL/WT/177/200325

Sample ID No : 200325413

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date: 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	IS 10500 : 2012	
					Acceptable Limits (Max)	Permissible Limits (Max)
38	Biological Oxygen Demand (BOD)@ 27°C For 3 days	mg/l	BLQ(LOQ:2.0)	IS 3025 Part 44: 1993	NA	NA
39	Chemical Oxygen Demand (COD)	mg/l	BLQ(LOQ:4.0)	IS 3025 Part 58: 2006	NA	NA
40	Phosphate as PO4	mg/l	BLQ(LOQ:0.02)	IS 3025 Part 31 Sec 1: 2022	NA	NA
41	Selenium	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.01	No relaxation
42	Manganese	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.1	0.3
43	Total alkalinity as CaCO3	mg/l	430.0	IS 3025 (Part 23): 1986	200	600

Note:- BLQ : Below Limit of Quantification, LOQ: Limit of Quantification, mg/l: milligram per Litre, % - Percentage.

End of Report

D.Anusuya
Lab Manager
Authorized Signatory

TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT
Address of the Client : Sivagangai
Group : Water
Sample Name : Ground Water
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.
Sample Location : Near Kiranur
Environmental Condition : Temperature (°C) : 27.0 | Humidity (%) : 53.0
Sampling Method & Plan : IS 17614(Part-1):2021

Report No. : HECSL/WT/177/200325/N
Sample ID No : 200325413
Sampling Date : 22/03/2025
Received Date : 22/03/2025
Commenced Date : 22/03/2025
Completed On : 05/04/2025
Report Date : 05/04/2025
Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	Hexavalent Chromium as Cr6+	mg/l	BLQ(LOQ:0.01)	IS 3025 Part 52 Clause 6: 2003

Note:- BLQ : Below Limit of Quantification, LOQ: Limit of Quantification, mg/l: milligram per Litre.

End of Report



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**TEST REPORT**

Page : 1 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Ground Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Tamarakki

Environmental Condition : Temperature (°C) : 25.0 | Humidity (%) : 49.0

Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016850F

Report No. : HECSL/WT/178/200325

Sample ID No : 200325414

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date: 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	IS 10500 : 2012	
					Acceptable Limits (Max)	Permissible Limits (Max)
Discipline : Chemical						
1	Bi carbonate	mg/l	500.2	IS 3025 Part 51: 2001	NA	NA
2	Boron as B	mg/l	BLQ(LOQ:0.1)	IS 3025 Part 57 -Curcumin Method: 2021	0.5	2.4
3	Calcium as Ca	mg/l	64.13	IS 3025 Part 40: 1991(EDTA Titrimetric Method)	75	200
4	Carbonate	mg/l	BLQ(LOQ:1.0)	IS 3025 Part 51: 2001	NA	NA
5	Chloride as Cl	mg/l	158.36	IS 3025 Part 32: 1988 (Argentometric Method)	250	1000
6	Cyanide as CN	mg/l	BLQ(LOQ:0.01)	IS 3025 Part 27 Sec 1: 2021	0.05	No relaxation
7	Electrical Conductivity at 25°C	µS/cm	1250.0	IS 3025 Part-14: 2013	NA	NA
8	Fluoride as F	mg/l	0.39	APHA 23rd edition (Method 4500F-B , D): 2017	1.0	1.5
9	Iron as Fe	mg/l	0.043	IS 3025 (Part 53): 2003	1.0	No relaxation
10	Magnesium as Mg	mg/l	55.89	IS 3025 Part 46: 1994 (Valumetric Method using EDTA)	30	100
11	Nitrate as NO3	mg/l	1.91	APHA 23rd edition (Method 4500 NO3B): 2017	45	No relaxation
12	Colour	Hazen units	BLQ(LOQ:1.0)	IS 3025 (Part4): 2021	5	15
13	pH at 25°C	-	7.75	IS 3025(Part 11) : 2022 (Electrometric method)	6.5-8.5	No relaxation

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TEST REPORT

Page : 2 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Ground Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Tamarakki

Environmental Condition : Temperature (°C) : 25.0 | Humidity (%) : 49.0

Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016850F

Report No. : HECSL/WT/178/200325

Sample ID No : 200325414

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	IS 10500 : 2012	
					Acceptable Limits (Max)	Permissible Limits (Max)
14	Potassium as K	mg/l	10.0	IS 3025 Part 45: 1993 (Flame emission Photometric Method)	NA	NA
15	Sodium as Na	mg/l	112.0	IS 3025 Part 45: 1993 (Flame emission Photometric Method)	NA	NA
16	Sulphate as SO ₄	mg/l	26.32	IS 3025 Part 24 Sec 1: 2022(Turbidity Method)(Turbidity Method)	200	400
17	Total dissolved solids	mg/l	677.0	IS 3025 (Part 16): 1984	500	2000
18	Total Suspended Solids	mg/l	BLQ(LOQ:2.0)	IS 3025 (Part 17): 1984	NA	NA
19	Phosphorous as P	mg/l	BLQ(LOQ:0.02)	IS 3025 Part 31 Sec 1: 2022 (Stannous Chloride method)	NA	NA
20	Total hardness as CaCO ₃	mg/l	390.0	IS 3025 (Part 21): 2009	200	600
21	Turbidity, NTU	NTU	BLQ(LOQ:0.1)	IS 3025 (Part 10): 1984	1	5
22	Arsenic	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.01	No relaxation
23	Cadmium	mg/l	BLQ (LOQ: 0.001)	USEPA 200.8 : 1994	0.003	No relaxation
24	Chromium	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.05	No relaxation
25	Copper	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.05	1.5
26	Lead	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.01	No relaxation



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**TEST REPORT**

Page : 3 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Ground Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Tamarakki

Environmental Condition : Temperature (°C) : 25.0 | Humidity (%) : 49.0

Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016850F

Report No. : HECSL/WT/178/200325

Sample ID No : 200325414

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	IS 10500 : 2012	
					Acceptable Limits (Max)	Permissible Limits (Max)
27	Mercury	mg/l	BLQ (LOQ: 0.0005)	USEPA 200.8 : 1994	0.001	No relaxation
28	Nickel	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.02	No relaxation
29	Zinc	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	5	15
30	Phenolic compounds as C ₆ H ₅ OH	mg/l	BLQ (LOQ: 0.001)	IS 3025 Part 43 Sec 1: 2022	0.001	0.002
31	Anionic Surface Active agents as MBAS	mg/l	BLQ (LOQ: 0.05)	APHA 23rd edition (Method 5540 B, C): 2017	0.2	1
32	Percent Sodium	%	37.49	HECS /WT/SOP/002:: 2019	NA	NA
33	Barium	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.7	No relaxation
34	Residual Sodium Carbonate	meq/l	BLQ (LOQ: 1.0)	IS 11624: 2019	0.2	1.0
35	Ammonia as NH ₃	mg/l	BLQ (LOQ: 0.02)	IS 3025 Part 34: Sec 2: 2021 (Nesslerization Method)	0.5	No relaxation
36	Sodium Adsorption Ratio (SAR)	Square root of (millimole/litre)	2.5	IS 11624 : 2019	NA	NA
37	Dissolved oxygen	mg/l	6.6	IS 3025 (Part 38): 1989 (Titrimetric Method)	NA	NA



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TEST REPORT

Page : 4 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Ground Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Tamarakki

Environmental Condition : Temperature (°C) : 25.0 | Humidity (%) : 49.0

Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016850F

Report No. : HECSL/WT/178/200325

Sample ID No : 200325414

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date: 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	IS 10500 : 2012	
					Acceptable Limits (Max)	Permissible Limits (Max)
38	Biological Oxygen Demand (BOD)@ 27°C For 3 days	mg/l	BLQ(LOQ:2.0)	IS 3025 Part 44: 1993	NA	NA
39	Chemical Oxygen Demand (COD)	mg/l	BLQ(LOQ:4.0)	IS 3025 Part 58: 2006	NA	NA
40	Phosphate as PO4	mg/l	BLQ(LOQ:0.02)	IS 3025 Part 31 Sec 1: 2022	NA	NA
41	Selenium	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.01	No relaxation
42	Manganese	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.1	0.3
43	Total alkalinity as CaCO3	mg/l	410.0	IS 3025 (Part 23): 1986	200	600

Note:- BLQ : Below Limit of Quantification, LOQ: Limit of Quantification, mg/l: milligram per Litre, % - Percentage.

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Ground Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.

Sample Location : Tamarakki

Environmental Condition : Temperature (°C) : 25.0 | Humidity (%) : 49.0

Sampling Method & Plan : IS 17614(Part-1):2021

Report No. : HECSL/WT/178/200325/N

Sample ID No : 200325414

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date: 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	Hexavalent Chromium as Cr6+	mg/l	BLQ(LOQ:0.01)	IS 3025 Part 52 Clause 6: 2003

Note:- BLQ : Below Limit of Quantification, LOQ: Limit of Quantification, mg/l: milligram per Litre.

End of Report



D.Anusuya

Lab Manager

Authorized Signatory



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**TEST REPORT**

Page : 1 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Ground Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.

Sample Location : Mattur

Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 53.0

Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016851F

Report No. : HECSL/WT/179/200325

Sample ID No : 200325415

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date: 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	IS 10500 : 2012	
					Acceptable Limits (Max)	Permissible Limits (Max)
Discipline : Chemical						
1	Bi carbonate	mg/l	414.8	IS 3025 Part 51: 2001	NA	NA
2	Boron as B	mg/l	BLQ(LOQ:0.1)	IS 3025 Part 57 -Curcumin Method: 2021	0.5	2.4
3	Calcium as Ca	mg/l	120.24	IS 3025 Part 40: 1991(EDTA Titrimetric Method)	75	200
4	Carbonate	mg/l	BLQ(LOQ:1.0)	IS 3025 Part 51: 2001	NA	NA
5	Chloride as Cl	mg/l	272.18	IS 3025 Part 32: 1988 (Argentometric Method)	250	1000
6	Cyanide as CN	mg/l	BLQ(LOQ:0.01)	IS 3025 Part 27 Sec 1: 2021	0.05	No relaxation
7	Electrical Conductivity at 25°C	µS/cm	2100.0	IS 3025 Part-14: 2013	NA	NA
8	Fluoride as F	mg/l	0.48	APHA 23rd edition (Method 4500F-B , D): 2017	1.0	1.5
9	Iron as Fe	mg/l	0.059	IS 3025 (Part 53): 2003	1.0	No relaxation
10	Magnesium as Mg	mg/l	65.61	IS 3025 Part 46: 1994 (Valumetric Method using EDTA)	30	100
11	Nitrate as NO3	mg/l	19.78	APHA 23rd edition (Method 4500 NO3B): 2017	45	No relaxation
12	Colour	Hazen units	BLQ(LOQ:1.0)	IS 3025 (Part4): 2021	5	15
13	pH at 25°C	-	7.08	IS 3025(Part 11) : 2022 (Electrometric method)	6.5-8.5	No relaxation

D.Anusuya
Lab Manager
Authorized Signatory

**TEST REPORT**

Page : 2 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Ground Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Mattur

Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 53.0

Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016851F

Report No. : HECSL/WT/179/200325

Sample ID No : 200325415

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date: 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	IS 10500 : 2012	
					Acceptable Limits (Max)	Permissible Limits (Max)
14	Potassium as K	mg/l	17.0	IS 3025 Part 45: 1993 (Flame emission Photometric Method)	NA	NA
15	Sodium as Na	mg/l	184.0	IS 3025 Part 45: 1993 (Flame emission Photometric Method)	NA	NA
16	Sulphate as SO ₄	mg/l	279.12	IS 3025 Part 24 Sec 1: 2022(Turbidity Method)(Turbidity Method)	200	400
17	Total dissolved solids	mg/l	1180.0	IS 3025 (Part 16): 1984	500	2000
18	Total Suspended Solids	mg/l	BLQ(LOQ:2.0)	IS 3025 (Part 17): 1984	NA	NA
19	Phosphorous as P	mg/l	BLQ(LOQ:0.02)	IS 3025 Part 31 Sec 1: 2022 (Stannous Chloride method)	NA	NA
20	Total hardness as CaCO ₃	mg/l	570.0	IS 3025 (Part 21): 2009	200	600
21	Turbidity, NTU	NTU	BLQ(LOQ:0.1)	IS 3025 (Part 10): 1984	1	5
22	Arsenic	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.01	No relaxation
23	Cadmium	mg/l	BLQ (LOQ: 0.001)	USEPA 200.8 : 1994	0.003	No relaxation
24	Chromium	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.05	No relaxation
25	Copper	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.05	1.5
26	Lead	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.01	No relaxation

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TEST REPORT

Page : 3 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Ground Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.

Sample Location : Mattur

Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 53.0

Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016851F

Report No. : HECSL/WT/179/200325

Sample ID No : 200325415

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date: 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	IS 10500 : 2012	
					Acceptable Limits (Max)	Permissible Limits (Max)
27	Mercury	mg/l	BLQ (LOQ: 0.0005)	USEPA 200.8 : 1994	0.001	No relaxation
28	Nickel	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.02	No relaxation
29	Zinc	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	5	15
30	Phenolic compounds as C ₆ H ₅ OH	mg/l	BLQ(LOQ:0.001)	IS 3025 Part 43 Sec 1: 2022	0.001	0.002
31	Anionic Surface Active agents as MBAS	mg/l	BLQ(LOQ:0.05)	APHA 23rd edition (Method 5540 B, C): 2017	0.2	1
32	Percent Sodium	%	40.17	HECS /WT/SOP/002:: 2019	NA	NA
33	Barium	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.7	No relaxation
34	Residual Sodium Carbonate	meq/l	BLQ(LOQ:1.0)	IS 11624: 2019	0.2	1.0
35	Ammonia as NH ₃	mg/l	BLQ(LOQ:0.02)	IS 3025 Part 34:Sec 2: 2021 (Nesslerization Method)	0.5	No relaxation
36	Sodium Adsorption Ratio(SAR)	Square root of (millimole/litre)	3.3	IS 11624 : 2019	NA	NA
37	Dissolved oxygen	mg/l	6.5	IS 3025 (Part 38): 1989 (Titrimetric Method)	NA	NA



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TEST REPORT

Page : 4 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Ground Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Mattur

Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 53.0

Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016851F

Report No. : HECSL/WT/179/200325

Sample ID No : 200325415

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	IS 10500 : 2012	
					Acceptable Limits (Max)	Permissible Limits (Max)
38	Biological Oxygen	mg/l	BLQ(LOQ:2.0)	IS 3025 Part 44: 1993	NA	NA
39	Chemical Oxygen Demand (COD)	mg/l	BLQ(LOQ:4.0)	IS 3025 Part 58: 2006	NA	NA
40	Phosphate as PO4	mg/l	BLQ(LOQ:0.02)	IS 3025 Part 31 Sec 1: 2022	NA	NA
41	Selenium	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.01	No relaxation
42	Manganese	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	0.1	0.3
43	Total alkalinity as CaCO3	mg/l	340.0	IS 3025 (Part 23): 1986	200	600

Note:- BLQ : Below Limit of Quantification, LOQ: Limit of Quantification, mg/l: milligram per Litre, % - Percentage.

***End of Report**



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Ground Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.

Sample Location : Mattur

Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 53.0

Sampling Method & Plan : IS 17614(Part-1):2021

Report No. : HECSL/WT/179/200325/N

Sample ID No : 200325415

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date: 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	Hexavalent Chromium as Cr6+	mg/l	BLQ(LOQ:0.01)	IS 3025 Part 52 Clause 6: 2003

Note:- BLQ : Below Limit of Quantification, LOQ: Limit of Quantification, mg/l: milligram per Litre.

End of Report



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TEST REPORT

Page : 1 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Surface Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Tamarakki Lake

Environmental Condition : Temperature (°C) : 27.0 | Humidity (%) : 53.0

Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016852F

Report No. : HECSL/WT/180/200325

Sample ID No : 200325416

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	Inland Surface water Standards (Schedule -VT)
Discipline : Chemical					
1	Total alkalinity as CaCO ₃	mg/l	90.0	IS 3025 Part 23: 1986	NA
2	Bi-carbonate	mg/l	109.8	IS 3025 Part 51: 2001	NA
3	Biological Oxygen Demand (BOD)@ 27°C For 3 days	mg/l	2.0	IS 3025 Part 44: 1993	30
4	Boron as B	mg/l	BLQ(LOQ:0.1)	IS 3025 Part 57: 2021 (Curcumin Method)	NA
5	Calcium as Ca	mg/l	24.05	IS 3025 Part 40: 1991(EDTA Titrimetric Method)	NA
6	Chemical Oxygen Demand (COD)	mg/l	16.0	IS 3025 Part 58: 2006	250
7	Chloride as Cl	mg/l	207.85	IS 3025 Part 32: 1988 (Argentometric Method)	NA
8	Colour	Hazen units	BLQ(LOQ:1.0)	IS 3025 Part 4: 2021	NA
9	Dissolved oxygen	mg/l	5.9	IS 3025 Part 38: 1989	NA
10	Electrical Conductivity at 25°C	µS/cm	1059.0	IS:3025 Part 14: 2013	NA
11	Fluoride as F	mg/l	0.37	APHA 23rd edition Method 4500 F -B,D: 2017	2.0
12	Iron as Fe	mg/l	0.12	IS 3025 Part 53: 2003	3.0
13	Nitrate as NO ₃	mg/l	1.69	APHA 23rd edition Method 4500 NO ₃ B: 2017	NA

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TEST REPORT

Page : 2 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Surface Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Tamarakki Lake

Environmental Condition : Temperature (°C) : 27.0 | Humidity (%) : 53.0

Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016852F

Report No. : HECSL/WT/180/200325

Sample ID No : 200325416

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	Inland Surface water Standards (Schedule -VI)
14	Manganese	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	2.0
15	Selenium	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.05
16	Phosphate as PO4	mg/l	BLQ(LOQ:0.02)	APHA 23rd edition Method 4500-P B,D: 2017	NA
17	pH at 25°C	-	8.21	IS 3025 Part 11: 2022 (Electrometric Method)	5.5 – 9.0
18	Total dissolved solids	mg/l	496.0	IS 3025 Part 16: 1984	NA
19	Carbonate	mg/l	BLQ(LOQ:1.0)	IS 3025 Part 51: 2001	NA
20	Cyanide as CN	mg/l	BLQ(LOQ:0.01)	IS 3025 Part 27 sec 1: 2021	0.2
21	Magnesium as Mg	mg/l	26.73	IS 3025 Part 46: 1994 (Volumetric Method using EDTA)	NA
22	Potassium as K	mg/l	9.0	IS 3025 Part 45: 1993	NA
23	Sodium as Na	mg/l	116.0	IS 3025 Part 45: 1983	NA
24	Sulphate as SO4	mg/l	57.05	IS 3025 Part 24 Sec 1: 2022	NA
25	Phenolic compounds as C6H5OH	mg/l	BLQ(LOQ:0.001)	IS 3025 Part 43:Sec 1: 2022	1.0
26	Anionic Surface Active agents as MBAS	mg/l	BLQ(LOQ:0.05)	APHA 23rd edition Method 5540 B , C: 2017	NA

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TEST REPORT

Page : 3 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water
Sample Name : Surface Water
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : Tamarakki Lake
Environmental Condition : Temperature (°C) : 27.0 | Humidity (%) : 53.0
Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016852F
Report No. : HECSL/WT/180/200325
Sample ID No : 200325416
Sampling Date : 22/03/2025

Received Date : 22/03/2025
Commenced Date : 22/03/2025
Completed On : 05/04/2025
Report Date : 05/04/2025
Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	Inland Surface water Standards (Schedule -VI)
27	Percent Sodium	%	57.94	HECSG /WT/SOP/002 Issue No:01, Issue date 18.12: 2021	NA
28	Barium	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	NA
29	Residual Sodium Carbonate	mg/l	BLQ (LOQ: 1.0)	IS 11624: 2019	NA
30	Ammonia as NH ₃	mg/l	0.41	IS 3025 Part 34 Sec 2: 2021	50
31	Sodium Adsorption Ratio(SAR)	Square root of (millimole/litre)	3.85	IS 11624: 2019	NA
32	Total Hardness as CaCO ₃	mg/l	170.0	IS 3025 Part 21: 2009	NA
33	Total Phosphorous as P	mg/l	BLQ (LOQ: 0.02)	IS 3025 Part 31 Sec 1: 2022	NA
34	Total Suspended Solids	mg/l	9.0	IS 3025 Part 17: 1984	100
35	Turbidity	NTU	3.7	IS 3025 Part 10: 1984	NA
36	Arsenic	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.2
37	Cadmium	mg/l	BLQ (LOQ: 0.001)	USEPA 200.8 : 1994	2.0
38	Chromium	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	2.0
39	Copper	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	3.0

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TEST REPORT

Page : 4 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Surface Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Tamarakki Lake

Environmental Condition : Temperature (°C) : 27.0 | Humidity (%) : 53.0

Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016852F

Report No. : HECSL/WT/180/200325

Sample ID No : 200325416

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	Inland Surface water Standards (Schedule -VI)
40	Lead	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.1
41	Mercury	mg/l	BLQ (LOQ: 0.0005)	USEPA 200.8 : 1994	0.01
42	Nickel	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	3.0
43	Zinc	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	5.0

Note:- BLQ : Below the Limit of Quantification, LOQ: Limit of Quantification, mg/l: milligram per Litre, % - Percentage.

End of Report

D. Anusuya

Lab Manager

Authorized Signatory



TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT
Address of the Client : Sivagangai
Group : Water
Sample Name : Surface Water
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.
Sample Location : Tamarakki Lake
Environmental Condition : Temperature (°C) : 27.0 | Humidity (%) : 53.0
Sampling Method & Plan : IS 17614(Part-1):2021
Report No. : HECSL/WT/180/200325/N
Sample ID No : 200325416
Sampling Date : 22/03/2025
Received Date : 22/03/2025
Commenced Date : 22/03/2025
Completed On : 05/04/2025
Report Date : 05/04/2025
Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	Inland Surface water Standards (Schedule -VI)
Discipline : Chemical					
1	Hexavalent Chromium as Cr6+	mg/l	BLQ(LOQ:0.01)	IS 3025 Part 52 Clause 6: 2003	0.1

Note:- BLQ : Below the Limit of Quantification, LOQ: Limit of Quantification, mg/l: milligram per Litre, % - Percentage.

End of Report



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TEST REPORT

Page : 1 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Surface Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Uppar River

Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 55.0

Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016853F

Report No. : HECSL/WT/181/200325

Sample ID No : 200325417

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	Inland Surface water Standards (Schedule -VI)
Discipline : Chemical					
1	Total alkalinity as CaCO ₃	mg/l	250.0	IS 3025 Part 23: 1986	NA
2	Bi carbonate	mg/l	305.0	IS 3025 Part 51: 2001	NA
3	Biological Oxygen Demand (BOD)@ 27°C For 3 days	mg/l	2.0	IS 3025 Part 44: 1993	30
4	Boron as B	mg/l	BLQ(LOQ:0.1)	IS 3025 Part 57: 2021 (Curcumin Method)	NA
5	Calcium as Ca	mg/l	32.06	IS 3025 Part 40: 1991(EDTA Titrimetric Method)	NA
6	Chemical Oxygen Demand (COD)	mg/l	20.0	IS 3025 Part 58: 2006	250
7	Chloride as Cl	mg/l	138.56	IS 3025 Part 32: 1988 (Argentometric Method)	NA
8	Colour	Hazen units	BLQ(LOQ:1.0)	IS 3025 Part 4: 2021	NA
9	Dissolved oxygen	mg/l	5.8	IS 3025 Part 38: 1989	NA
10	Electrical Conductivity at 25°C	µS/cm	940.0	IS:3025 Part 14: 2013	NA
11	Fluoride as F	mg/l	0.43	APHA 23rd edition Method 4500 F -B,D: 2017	2.0
12	Iron as Fe	mg/l	0.105	IS 3025 Part 53: 2003	3.0
13	Nitrate as NO ₃	mg/l	1.83	APHA 23rd edition Method 4500 NO ₃ B: 2017	NA

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TEST REPORT

Page : 2 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Surface Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.

Sample Location : Uppar River

Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 55.0

Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016853F

Report No. : HECSL/WT/181/200325

Sample ID No : 200325417

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	Inland Surface water Standards (Schedule -VI)
14	Manganese	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	2.0
15	Selenium	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.05
16	Phosphate as PO4	mg/l	0.067	APHA 23rd edition Method 4500-P B,D: 2017	NA
17	pH at 25°C	-	8.31	IS 3025 Part 11: 2022 (Electrometric Method)	5.5 – 9.0
18	Total dissolved solids	mg/l	498.0	IS 3025 Part 16: 1984	NA
19	Carbonate	mg/l	20.0	IS 3025 Part 51: 2001	NA
20	Cyanide as CN	mg/l	BLQ(LOQ:0.01)	IS 3025 Part 27 sec 1: 2021	0.2
21	Magnesium as Mg	mg/l	36.45	IS 3025 Part 46: 1994 (Valumetric Method using EDTA)	NA
22	Potassium as K	mg/l	7.0	IS 3025 Part 45: 1993	NA
23	Sodium as Na	mg/l	81.0	IS 3025 Part 45: 1983	NA
24	Sulphate as SO4	mg/l	40.97	IS 3025 Part 24 Sec 1: 2022	NA
25	Phenolic compounds as C6H5OH	mg/l	BLQ(LOQ:0.001)	IS 3025 Part 43:Sec 1: 2022	1.0
26	Anionic Surface Active agents as MBAS	mg/l	BLQ(LOQ:0.05)	APHA 23rd edition Method 5540 B , C: 2017	NA



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TEST REPORT

Page : 3 of 4

Name of the Client : M/s. SIPCOT
Address of the Client : Sivagangai

ULR : TC1231025000016853F
Report No. : HECSL/WT/181/200325
Sample ID No : 200325417
Sampling Date : 22/03/2025

Group : Water
Sample Name : Surface Water
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.
Sample Location : Uppar River
Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 55.0
Sampling Method & Plan : IS 17614(Part-1):2021

Received Date : 22/03/2025
Commenced Date : 22/03/2025
Completed On : 05/04/2025
Report Date : 05/04/2025
Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	Inland Surface water Standards (Schedule -VI)
27	Percent Sodium	%	42.25	HECSG /WT/SOP/002 Issue No:01, Issue date 18.12: 2021	NA
28	Barium	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	NA
29	Residual Sodium Carbonate	mg/l	BLQ (LOQ: 1.0)	IS 11624: 2019	NA
30	Ammonia as NH ₃	mg/l	0.39	IS 3025 Part 34 Sec 2: 2021	50
31	Sodium Adsorption Ratio(SAR)	Square root of (millimole/ litre)	2.49	IS 11624: 2019	NA
32	Total Hardness as CaCO ₃	mg/l	230.0	IS 3025 Part 21: 2009	NA
33	Total Phosphorous as P	mg/l	0.021	IS 3025 Part 31 Sec 1: 2022	NA
34	Total Suspended Solids	mg/l	5.0	IS 3025 Part 17: 1984	100
35	Turbidity	NTU	2.3	IS 3025 Part 10: 1984	NA
36	Arsenic	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.2
37	Cadmium	mg/l	BLQ (LOQ: 0.001)	USEPA 200.8 : 1994	2.0
38	Chromium	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	2.0
39	Copper	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	3.0

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TEST REPORT

Page : 4 of 4

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Water

Sample Name : Surface Water

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.

Sample Location : Uppar River

Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 55.0

Sampling Method & Plan : IS 17614(Part-1):2021

ULR : TC1231025000016853F

Report No. : HECSL/WT/181/200325

Sample ID No : 200325417

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 05/04/2025

Report Date : 05/04/2025

Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	Inland Surface water Standards (Schedule -VI)
40	Lead	mg/l	BLQ (LOQ: 0.005)	USEPA 200.8 : 1994	0.1
41	Mercury	mg/l	BLQ (LOQ: 0.0005)	USEPA 200.8 : 1994	0.01
42	Nickel	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	3.0
43	Zinc	mg/l	BLQ (LOQ: 0.01)	USEPA 200.8 : 1994	5.0

Note:- BLQ : Below the Limit of Quantification, LOQ: Limit of Quantification, mg/l: milligram per Litre, % - Percentage.

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT
Address of the Client : Sivagangai
Group : Water
Sample Name : Surface Water
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.
Sample Location : Uppar River
Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 55.0
Sampling Method & Plan : IS 17614(Part-1):2021

Report No. : HECSL/WT/181/200325/N
Sample ID No : 200325417
Sampling Date : 22/03/2025
Received Date : 22/03/2025
Commenced Date : 22/03/2025
Completed On : 05/04/2025
Report Date : 05/04/2025
Sample Qty : 2 Litres

S.No.	Test Parameters	Units	Results	Test Method	Inland Surface water Standards (Schedule -VI)
Discipline : Chemical					
1	Hexavalent Chromium as Cr6+	mg/l	BLQ(LOQ:0.01)	IS 3025 Part 52 Clause 6: 2003	0.1

Note:- BLQ : Below the Limit of Quantification, LOQ: Limit of Quantification, mg/l: milligram per Litre, % : Percentage.

End of Report



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TEST REPORT

Page : 1 of 2

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Pollution & Environment

Sample Name : Soil

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.

Sample Location : Near Project Site

Environmental Condition : Temperature (°C) : 29.0 | Humidity (%) : 55.0

Sampling Method & Plan : ICARDA : 2013

ULR : TC1231025000016945F

Report No. : HECS/PE/068/200325

Sample ID No : 200325418

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 07/04/2025

Report Date : 07/04/2025

Sample Qty : 1 Kg

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	Cadmium	mg/Kg	BLQ (LOQ: 0.1)	HECS-G/INS/SOP/ 042 Issue No.:01 Issue Date:01.03.2021
2	Chromium	mg/Kg	69.89	HECS-G/INS/SOP/042 Issue No.:01 Issue Date:01.03.2021
3	Copper	mg/Kg	32.79	HECS-G/INS/SOP/ 042 Issue No.:01 Issue Date:01.03.2021
4	Zinc	mg/kg	22.43	HECS-G/INS/SOP/ 042 Issue No.:01 Issue Date:01.03.2021
5	Soil Texture	-	Clay loam	FAO of United Nations, Rome Chapter - III 2008
6	Soil Texture i) Sand	%	25.8	FAO of United Nations, Rome Chapter - III 2008
7	Soil Texture ii) Silt	%	43.8	FAO of United Nations, Rome Chapter - III 2008
8	Soil Texture iii) Clay	%	30.4	FAO of United Nations, Rome Chapter - III 2008
9	pH Value @ 25 °C (1 : 2.5)	-	6.40	IS 2720 (Part 26) 1987
10	Electrical conductivity @ 25 °C (1 : 2)	µS/cm	305.0	IS 14767: 2000
11	Bulk Density	gm/cm ³	0.99	FAO of United Nations Rome 2007
12	Organic Carbon	%	0.31	IS 2720 (Part 22) Section I 1972
13	Organic Matter	%	0.54	IS 2720 (Part 22) Section I 1972

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TEST REPORT

Page : 2 of 2

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Pollution & Environment

Sample Name : Soil

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Near Project Site

Environmental Condition : Temperature (°C) : 29.0 | Humidity (%) : 55.0

Sampling Method & Plan : ICARDA : 2013

ULR : TC1231025000016945F

Report No. : HECS/PE/068/200325

Sample ID No : 200325418

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 07/04/2025

Report Date : 07/04/2025

Sample Qty : 1 Kg

S.No.	Test Parameters	Units	Results	Test Method
14	Available Phosphorous as P	µg/g	10.56	FAO of United Nations, Rome Chapter - III.2008
15	Available Potassium	mEq/100g	20.20	FAO of United Nations, Rome Chapter - III 2008
16	Boron as B	mg/kg	BLQ(LOQ 0.1)	HECS-G/ENV/SSW/SOP/018 Issue No.:01 Issue Date:02:07 2020
17	Total Nitrogen as N	%	0.0094	IS 14684 Clause 4 1999
18	Exchangable Calcium as Ca	mEq/L	16.42	FAO of United Nations, Rome Chapter - III 2008
19	Exchangable Magnesium as Mg	mEq/L	12.74	FAO of United Nations, Rome Chapter - III 2008
20	Cation Exchange Capacity	mEq/100g	3.0	IS 2720 (Part 24) Clause 5 1976
21	Water Holding capacity	%	17.4	IS 14765: 2000
22	Colour	-	Red	HECS-G/ENV/SSW/SOP/011 Issue No.:01 Issue Date:02:07: 2020

Note:- BLQ : Below the Limit of Quantification, LOQ: Limit of Quantification, mg/kg: milligram per kilogram, % - Percentage..

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Pollution & Environment

Sample Name : Soil

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Near Project Site

Environmental Condition : Temperature (°C) : 29.0 | Humidity (%) : 55.0

Sampling Method & Plan : ICARDA : 2013

Report No. : HECS/PE/068/200325/N

Sample ID No : 200325418

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 07/04/2025

Report Date : 07/04/2025

Sample Qty : 1 Kg

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	Moisture	%	3.98	HECS-G/ENV/SSW/SOP/003 Issue No.01 Issue Date:02.07. 2020
2	Manganese	mg/kg	196.17	HECS-G/INS/SOP/ 042
3	Iron	mg/kg	9.59	Inhouse method
4	Infiltration Rate	-	0.7	Inhouse method

Note:- mg/kg: milligram per kilogram, % - Percentage.

End of Report



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TEST REPORT

Page : 1 of 2

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Pollution & Environment

Sample Name : Soil

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Pappagudi

Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 55.0

Sampling Method & Plan : ICARDA : 2013

ULR : TC1231025000016946F

Report No. : HECS/PE/069/200325

Sample ID No : 200325419

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 07/04/2025

Report Date : 07/04/2025

Sample Qty : 1 Kg

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	Cadmium	mg/Kg	BLQ (LOQ: 0.1)	HECS-G/INS/SOP/ 042 Issue No.:01 Issue Date:01.03.2021
2	Chromium	mg/Kg	30.37	HECS-G/INS/SOP/042 Issue No.:01 Issue Date:01.03.2021
3	Copper	mg/Kg	27.79	HECS-G/INS/SOP/ 042 Issue No.:01 Issue Date:01.03.2021
4	Zinc	mg/kg	40.45	HECS-G/INS/SOP/ 042 Issue No.:01 Issue Date:01.03.2021
5	Soil Texture		Loam	FAO of United Nations, Rome Chapter - III 2008
6	Soil Texture i)Sand	%	34.6	FAO of United Nations, Rome Chapter - III 2008
7	Soil Texture ii)Silt	%	40.4	FAO of United Nations, Rome Chapter - III 2008
8	Soil Texture iii)Clay	%	25.0	FAO of United Nations, Rome Chapter - III 2008
9	pH Value @ 25 °C (1 : 2.5)	-	8.28	IS 2720 (Part 26) 1987
10	Electrical conductivity @ 25 °C (1 : 2)	µS/cm	124.4	IS 14767: 2000
11	Bulk Density	gm/cm3	1.00	FAO of United Nations Rome 2007
12	Organic Carbon	%	0.30	IS 2720 (Part 22) Section I 1972
13	Organic Matter	%	0.51	IS 2720 (Part 22) Section I 1972



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TEST REPORT

Page : 2 of 2

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Pollution & Environment

Sample Name : Soil

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Pappagudi

Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 55.0

Sampling Method & Plan : ICARDA : 2013

ULR : TC1231025000016946F

Report No. : HECS/PE/069/200325

Sample ID No : 200325419

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 07/04/2025

Report Date : 07/04/2025

Sample Qty : 1 Kg

S.No.	Test Parameters	Units	Results	Test Method
14	Available Phosphorous as P	µg/g	BLQ(LOQ 5.0)	FAO of United Nations, Rome Chapter - III 2008
15	Available Potassium	mEq/100g	26.82	FAO of United Nations, Rome Chapter - III 2008
16	Boron as B	mg/kg	BLQ(LOQ 0.1)	HECS-G/ENV/SSW/SOP/018 Issue No.01 Issue Date:02:07 2020
17	Total Nitrogen as N	%	0.0098	IS 14684 Clause 4 1999
18	Exchangable Calcium as Ca	mEq/L	15.28	FAO of United Nations, Rome Chapter - III 2008
19	Exchangable Magnesium as Mg	mEq/L	9.50	FAO of United Nations, Rome Chapter - III 2008
20	Cation Exchange Capacity	mEq/100g	2.8	IS 2720 (Part 24) Clause 5 1976
21	Water Holding capacity	%	30.4	IS 14765: 2000
22	Colour	-	Brown	HECS-G/ENV/SSW/SOP/011 Issue No.01 Issue Date:02:07 2020

Note:- BLQ : Below the Limit of Quantification, LOQ: Limit of Quantification, mg/kg: milligram per kilogram, % - Percentage..

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT
Address of the Client : Sivagangai
Group : Pollution & Environment
Sample Name : Soil
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.
Sample Location : Pappagudi
Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 55.0
Sampling Method & Plan : ICARDA : 2013
Report No. : HECS/PE/069/200325/N
Sample ID No : 200325419
Sampling Date : 22/03/2025
Received Date : 22/03/2025
Commenced Date : 22/03/2025
Completed On : 07/04/2025
Report Date : 07/04/2025
Sample Qty : 1 Kg

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	Moisture	%	6.20	HECS-G/ENV/SSW/SOP/003 Issue No.:01 Issue Date:02:07: 2020
2	Manganese	mg/kg	81.02	HECS-G/INS/SOP/ 042
3	Iron	mg/kg	BLQ(LOQ 0.02)	Inhouse method
4	Infiltration Rate	-	1.0	Inhouse method

Note:- mg/kg: milligram per kilogram, % - Percentage.

End of Report



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**TEST REPORT**

Page : 1 of 2

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Pollution & Environment

Sample Name : Soil

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Near Kiranur

Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 55.0

Sampling Method & Plan : ICARDA : 2013

ULR : TC1231025000016947F

Report No. : HECS/PE/070/200325

Sample ID No : 200325420

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 07/04/2025

Report Date : 07/04/2025

Sample Qty : 1 Kg

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	Cadmium	mg/Kg	BLQ (LOQ: 0.1)	HECS-G/INS/SOP/ 042 Issue No.:01 Issue Date:01.03.2021
2	Chromium	mg/Kg	18.78	HECS-G/INS/SOP/042 Issue No.:01 Issue Date:01.03.2021
3	Copper	mg/Kg	16.86	HECS-G/INS/SOP/ 042 Issue No.:01 Issue Date:01.03.2021
4	Zinc	mg/kg	20.89	HECS-G/INS/SOP/ 042 Issue No.:01 Issue Date:01.03.2021
5	Soil Texture	-	Sandy loam	FAO of United Nations, Rome Chapter - III 2008
6	Soil Texture i) Sand	%	52.8	FAO of United Nations, Rome Chapter - III 2008
7	Soil Texture ii) Silt	%	27.6	FAO of United Nations, Rome Chapter - III 2008
8	Soil Texture ii) Clay	%	19.6	FAO of United Nations, Rome Chapter - III 2008
9	pH Value @ 25 ° C (1 : 2.5)	-	7.67	IS 2720 (Part 26) 1987
10	Electrical conductivity @ 25 ° C (1 : 2)	µS/cm	4610.0	IS 14767: 2000
11	Bulk Density	gm/cm ³	0.99	FAO of United Nations Rome 2007
12	Organic Carbon	%	0.40	IS 2720 (Part 22) Section I 1972
13	Organic Matter	%	0.70	IS 2720 (Part 22) Section I 1972

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TEST REPORT

Page : 2 of 2

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Pollution & Environment

Sample Name : Soil

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Near Kiranur

Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 55.0

Sampling Method & Plan : ICARDA : 2013

ULR : TC1231025000016947F

Report No. : HECS/PE/070/200325

Sample ID No : 200325420

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 07/04/2025

Report Date : 07/04/2025

Sample Qty : 1 Kg

S.No.	Test Parameters	Units	Results	Test Method
14	Available Phosphorous as P	µg/g	13.48	FAO of United Nations, Rome Chapter - III 2008
15	Available Potassium	mEq/100g	75.56	FAO of United Nations, Rome Chapter - III 2008
16	Boron as B	mg/kg	BLQ(LOQ 0.1)	HECS-G/ENV/SSW/SOP/018 Issue No.:01 Issue Date:02:07: 2020
17	Total Nitrogen as N	%	0.0115	IS 14684 Clause 4 1999
18	Exchangable Calcium as Ca	mEq/L	21.48	FAO of United Nations, Rome Chapter - III 2008
19	Exchangable Magnesium as Mg	mEq/L	15.60	FAO of United Nations, Rome Chapter - III 2008
20	Cation Exchange Capacity	mEq/100g	4.4	IS 2720 (Part 24) Clause 5 1976
21	Water Holding capacity	%	22.0	IS 14765: 2000
22	Colour	-	Brown	HECS-G/ENV/SSW/SOP/011 Issue No.:01 Issue Date:02:07: 2020

Note:- BLQ : Below the Limit of Quantification, LOQ: Limit of Quantification, mg/kg: milligram per kilogram, % - Percentage.

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT
Address of the Client : Sivagangai
Group : Pollution & Environment
Sample Name : Soil
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.
Sample Location : Near Kiranur
Environmental Condition : Temperature (°C) : 28.0 | Humidity (%) : 55.0
Sampling Method & Plan : ICARDA : 2013
Report No. : HECS/PE/070/200325/N
Sample ID No : 200325420
Sampling Date : 22/03/2025
Received Date : 22/03/2025
Commenced Date : 22/03/2025
Completed On : 07/04/2025
Report Date : 07/04/2025
Sample Qty : 1 Kg

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	Moisture	%	10.60	HECS-G/ENV/SSW/SOP/003 Issue No.:01 Issue Date:02:07: 2020
2	Manganese	mg/kg	185.91	HECS-G/INS/SOP/ 042
3	Iron	mg/kg	5.28	Inhouse method
4	Infiltration Rate	-	0.9	Inhouse method

Note:- mg/kg: milligram per kilogram, % - Percentage.

***End of Report**



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Hubert Enviro Care Systems (P) Ltd.

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Guindy, Chennai - 600 032.
Ph: 42985555 / 43635555 Fax : 42985500
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Laboratory Services Division

(Chemical & Biological Testing)
Recognized by CPCB (MoEF & CC)
BIS FSSAI Notified Laboratory
ISO 9001, 14001 & 45001 Certified.



TEST REPORT

Page : 1 of 2

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Pollution & Environment

Sample Name : Soil

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Tamarakki

Environmental Condition : Temperature (°C) : 29.0 | Humidity (%) : 56.0

Sampling Method & Plan : ICARDA : 2013

ULR : TC1231025000016948F

Report No. : HECS/PE/071/200325

Sample ID No : 200325421

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 07/04/2025

Report Date : 07/04/2025

Sample Qty : 1 Kg

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	Cadmium	mg/Kg	BLQ (LOQ: 0.1)	HECS-G/INS/SOP/ 042 Issue No.:01 Issue Date:01.03.2021
2	Chromium	mg/Kg	66.49	HECS-G/INS/SOP/042 Issue No.:01 Issue Date:01.03.2021
3	Copper	mg/Kg	6.49	HECS-G/INS/SOP/ 042 Issue No.:01 Issue Date:01.03.2021
4	Zinc	mg/kg	80.76	HECS-G/INS/SOP/ 042 Issue No.:01 Issue Date:01.03.2021
5	Soil Texture	-	Loam	FAO of United Nations, Rome Chapter - III 2008
6	Soil Texture i)Sand	%	33.2	FAO of United Nations, Rome Chapter - III 2008
7	Soil Texture ii)Silt	%	48.8	FAO of United Nations, Rome Chapter - III 2008
8	Soil Texture iii)Clay	%	18.0	FAO of United Nations, Rome Chapter - III 2008
9	pH Value @ 25 ° C (1 : 2.5)	-	8.42	IS 2720 (Part 26) 1987
10	Electrical conductivity @ 25 ° C (1 : 2)	µS/cm	118.9	IS 14767: 2000
11	Bulk Density	gm/cm3	1.02	FAO of United Nations Rome 2007
12	Organic Carbon	%	0.29	IS 2720 (Part 22) Section I 1972
13	Organic Matter	%	0.50	IS 2720 (Part 22) Section I 1972



D.Anusuya
Lab Manager
Authorized Signatory

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TC-12310

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TEST REPORT

Page : 2 of 2

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Pollution & Environment

Sample Name : Soil

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Tamarakki

Environmental Condition : Temperature (°C) : 29.0 | Humidity (%) : 56.0

Sampling Method & Plan : ICARDA : 2013

ULR : TC1231025000016948F

Report No. : HECS/PE/071/200325

Sample ID No : 200325421

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 07/04/2025

Report Date : 07/04/2025

Sample Qty : 1 Kg

S.No.	Test Parameters	Units	Results	Test Method
14	Available Phosphorous as P	µg/g	BLQ(LOQ 5.0)	FAO of United Nations, Rome Chapter - III 2008
15	Available Potassium	mEq/100g	26.66	FAO of United Nations, Rome Chapter - III 2008
16	Boron as B	mg/kg	BLQ(LOQ 0.1)	HECS-G/ENV/SSW/SOP/018 Issue No.01 Issue Date:02:07 2020
17	Total Nitrogen as N	%	0.0088	IS 14684 Clause 4 1999
18	Exchangable Calcium as Ca	mEq/L	14.76	FAO of United Nations, Rome Chapter - III 2008
19	Exchangable Magnesium as Mg	mEq/L	9.90	FAO of United Nations, Rome Chapter - III 2008
20	Cation Exchange Capacity	mEq/100g	2.6	IS 2720 (Part 24) Clause 5 1976
21	Water Holding capacity	%	30.8	IS 14765: 2000
22	Colour	-	Brown	HECS-G/ENV/SSW/SOP/011 Issue No.01 Issue Date:02:07 2020

Note:- BLQ : Below the Limit of Quantification, LOQ: Limit of Quantification, mg/kg: milligram per kilogram, % - Percentage..

End of Report



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Page : 1 of 1

Name of the Client : M/s. SIPCOT
Address of the Client : Sivagangai
Group : Pollution & Environment
Sample Name : Soil
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.
Sample Location : Tamarakki
Environmental Condition : Temperature (°C) : 29.0 | Humidity (%) : 56.0
Sampling Method & Plan : ICARDA : 2013

Report No. : HECS/PE/071/200325/N
Sample ID No : 200325421
Sampling Date : 22/03/2025
Received Date : 22/03/2025
Commenced Date : 22/03/2025
Completed On : 07/04/2025
Report Date : 07/04/2025
Sample Qty : 1 Kg

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	Moisture	%	3.92	HECS-G/ENV/SSW/SOP/003 Issue No.:01 Issue Date:02:07: 2020
2	Manganese	mg/kg	197.65	HECS-G/INS/SOP/ 042
3	Iron	mg/kg	3.96	Inhouse method
4	Infiltration Rate		0.8	Inhouse method

Note:- mg/kg: milligram per kilogram, % - Percentage.

End of Report



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TEST REPORT

Page : 1 of 2

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Pollution & Environment

Sample Name : Soil

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Mattur

Environmental Condition : Temperature (°C) : 30.0 | Humidity (%) : 55.0

Sampling Method & Plan : ICARDA : 2013

ULR : TC1231025000016949F

Report No. : HECS/PE/072/200325

Sample ID No : 200325422

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 07/04/2025

Report Date : 07/04/2025

Sample Qty : 1 Kg

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	Cadmium	mg/Kg	BLQ (LOQ: 0.1)	HECS-G/INS/SOP/ 042 Issue No.:01 Issue Date:01.03.2021
2	Chromium	mg/Kg	24.49	HECS-G/INS/SOP/042 Issue No.:01 Issue Date:01.03.2021
3	Copper	mg/Kg	11.42	HECS-G/INS/SOP/ 042 Issue No.:01 Issue Date:01.03.2021
4	Zinc	mg/kg	29.44	HECS-G/INS/SOP/ 042 Issue No.:01 Issue Date:01.03.2021
5	Soil Texture	-	Silty clay loam	FAO of United Nations, Rome Chapter - III 2008
6	Soil Texture i) Sand	%	19.2	FAO of United Nations, Rome Chapter - III 2008
7	Soil Texture ii) Silt	%	42.4	FAO of United Nations, Rome Chapter - III 2008
8	Soil Texture iii) Clay	%	38.4	FAO of United Nations, Rome Chapter - III 2008
9	pH Value @ 25 ° C (1 : 2.5)	-	8.04	IS 2720 (Part 26) 1987
10	Electrical conductivity @ 25 ° C (1 : 2)	µS/cm	237.0	IS 14767: 2000
11	Bulk Density	gm/cm ³	1.00	FAO of United Nations Rome 2007
12	Organic Carbon	%	0.35	IS 2720 (Part 22) Section I 1972
13	Organic Matter	%	0.60	IS 2720 (Part 22) Section I 1972



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TEST REPORT

Page : 2 of 2

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Pollution & Environment

Sample Name : Soil

Sample Mark : NA

Sample Reference : NA

Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.

Sample Location : Mattur

Environmental Condition : Temperature (°C) : 30.0 | Humidity (%) : 55.0

Sampling Method & Plan : ICARDA : 2013

ULR : TC1231025000016949F

Report No. : HECS/PE/072/200325

Sample ID No : 200325422

Sampling Date : 22/03/2025

Received Date : 22/03/2025

Commenced Date : 22/03/2025

Completed On : 07/04/2025

Report Date : 07/04/2025

Sample Qty : 1 Kg

S.No.	Test Parameters	Units	Results	Test Method
14	Available Phosphorous as P	µg/g	8.06	FAO of United Nations, Rome Chapter - III 2008
15	Available Potassium	mEq/100g	22.10	FAO of United Nations, Rome Chapter - III 2008
16	Boron as B	mg/kg	BLQ(LOQ 0.1)	HECS-G/ENV/SSW/SOP/018 Issue No.:01 Issue Date:02:07 2020
17	Total Nitrogen as N	%	0.0130	IS 14684 Clause 4 1999
18	Exchangable Calcium as Ca	mEq/L	17.54	FAO of United Nations, Rome Chapter - III 2008
19	Exchangable Magnesium as Mg	mEq/L	12.36	FAO of United Nations, Rome Chapter - III 2008
20	Cation Exchange Capacity	mEq/100g	3.1	IS 2720 (Part 24) Clause 5 1976
21	Water Holding capacity	%	21.4	IS 14765: 2000
22	Colour	-	Brown	HECS-G/ENV/SSW/SOP/011 Issue No.:01 Issue Date:02:07: 2020

Note:- BLQ : Below the Limit of Quantification, LOQ: Limit of Quantification, mg/kg: milligram per kilogram, % - Percentage..

End of Report



D.Anusuya
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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT
Address of the Client : Sivagangai
Group : Pollution & Environment
Sample Name : Soil
Sample Mark : NA
Sample Reference : NA
Sample Drawn By : M/s.Hubert Enviro care Systems (P) Ltd.
Sample Location : Mattur
Environmental Condition : Temperature (°C) : 30.0 | Humidity (%) : 55.0
Sampling Method & Plan : ICARDA : 2013

Report No. : HECS/PE/072/200325/N
Sample ID No : 200325422
Sampling Date : 22/03/2025
Received Date : 22/03/2025
Commenced Date : 22/03/2025
Completed On : 07/04/2025
Report Date : 07/04/2025
Sample Qty : 1 Kg

S.No.	Test Parameters	Units	Results	Test Method
Discipline : Chemical				
1	Moisture	%	2.35	HECS-G/ENV/SSW/SOP/003 Issue No.:01 Issue Date:02:07: 2020
2	Manganese	mg/kg	235.04	HECS-G/INS/SOP/ 042
3	Iron	mg/kg	8.34	Inhouse method
4	Infiltration Rate	-	1.1	Inhouse method

Note:- mg/kg: milligram per kilogram, % - Percentage.

End of Report



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TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT

Address of the Client : Sivagangai

Group : Atmospheric Pollution
Sample Name : Noise Levels (Excluding vibration) (Env)
Sample Mark : Ambient Noise
Sample Reference : NA
Sample Drawn By : M/s. Hubert Enviro care Systems (P) Ltd.
Sample Location : NA
Environmental Condition : Temperature (°C) : 32.0 | Humidity (%) : 56.0
Sampling Method & Plan : IS 9989:1981

ULR : TC1231025000016989F
Report No. : HECS/AP/145/200325
Sample ID No : 200325412
Sampling Date : 22/03/2025

Received Date : 22/03/2025
Commenced Date : 22/03/2025
Completed On : 04/04/2025
Report Date : 07/04/2025
Sample Qty : NA

S.No	Sampling Location	Day Noise level in dB (A)	Night Noise level in dB (A)
1	Near Project Site	52.5	43.0
2	Pappagudi	53.8	42.5
3	Near Kiranur	49.7	42.8
4	Tamarakki	52.8	43.7
5	Mattur	50.5	43.2

Noise Standards - CPCB:

- | | | |
|-----------------------|-----------------------|-----------------------|
| i. Industrial Area | : Day Time-75 dB (A); | Night Time-70 dB (A). |
| ii. Commercial Area | : Day Time-65 dB (A); | Night Time-55 dB (A). |
| iii. Residential Area | : Day Time-55 dB (A); | Night Time-45 dB (A). |
| iv. Silence Zone | : Day Time-50 dB (A); | Night Time-40 dB (A). |

Note: 1. Day Time shall mean from 6.00 am to 10.00 pm.
2. Night Time shall mean from 10.00 pm to 6.00 am.
End of Report



D. Anusuya
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SIPCOT – SIVAGANGAI
MONITORING PHOTOGRAPHS

AMBIENT AIR QUALITY MONITORING PHOTOS:

NEAR PROJECT AREA



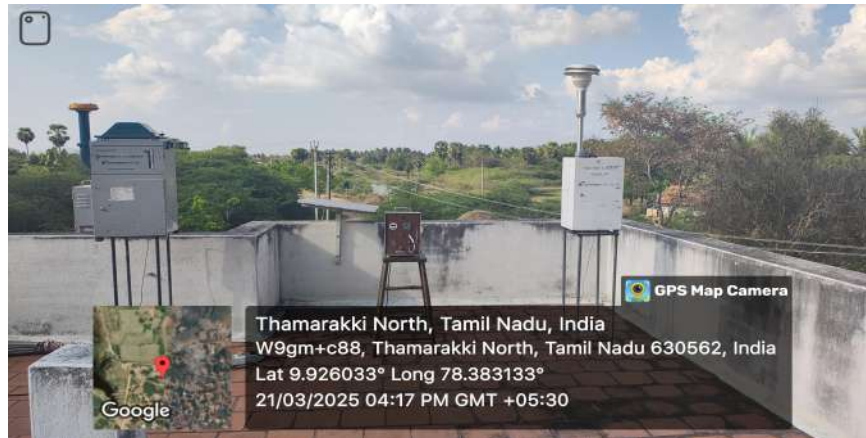
Pappagudi



Near Kiranur



Tamarakki



Mattur



GROUND WATER SAMPLING PHOTOS

Near Kiranur



Tamarakki



Mattur



NOISE SAMPLING PHOTOGRAPH

NEAR PROJECT AREA



Pappagudi



Near Kiranur



Tamarakki



Mattur



SOIL MONTORING PHOTOGRAPH

NEAR PROJECT AREA



Pappagudi



Tamarakki



Near Kiranur



Mattur



SURFACE WATER SAMPLING PHOTOGRAPH

Tamarakki lake



Uppar River



23.09.2024