



SIPCOT

P-III/EC/I/47323/2023-PPK

Date: 30.11.2023

To,
The Member Secretary,
State Level Environment Impact Assessment Authority,
3rd Floor, Panagal Maligai,
No.1 Jeenis Road, Saidapet,
Chennai-600 015

Sir/Madam,

Sub: SIPCOT Industrial Park at Pillaipakkam – Submission of Half Yearly Compliance Report for December 2023 (i.e., for the period of April 2023 to September 2023) - Reg.

Ref: EC vide Letter No. SEIAA/TN/EC/8(b)/112/F-411/2010dated 11.02.2011

We hereby submit the Half Yearly Compliance Report for the Development of Industrial Park at Pillaipakkam, Navalur, Vengadu Villages, Sriperumbudur Taluk, Kancheepuram District, Tamil Nadu for December 2023 (i.e., for the period of April 2023 to September 2023) along with the supporting documents for your perusal.

Thanking you

Yours faithfully,
Sd/-
MANAGING DIRECTOR

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 : U74999TN1971SGC005967

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



SIPCOT

/2/

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

/Forwarded by Order/

GENERAL MANAGER (P-I)

State Industries Promotion Corporation of Tamil Nadu Limited
(A Government of Tamil Nadu Undertaking)

CIN : U74999TN1971SGC005967

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

HALF YEARLY ENVIRONMENTAL CLEARANCE COMPLIANCE REPORT

For the period of April 2023 to September 2023

For

“Establishment of SIPCOT Industrial Park”

At

**Pillaipakkam, Navalur, Vengadu Villages, Sriperumbudur Taluk,
Kancheepuram District, Tamil Nadu**

EC OBTAINED Vide Letter NO. SEIAA/TN/EC/8(b)/112/F-411/2010/dt.11.02.2011

Submitted by



**M/S. STATE INDUSTRIES PROMOTION CORPORATION OF TAMILNADU LIMITED,
19/A ,Rukmani Lakshmipathy Road ,
Egmore, Chennai-600008.**

Prepared by



**HUBERT ENVIRO CARE SYSTEMS (P) LTD
CHENNAI
(ENVIRONMENTAL CONSULTANT)**

November 2023

TABLE OF CONTENTS

S. No	List of Contents	Page No
1.	Project details	3
2.	Location map	4
3.	Site photographs	5
4.	Six month environmental clearance statement	7
5.	Environmental Monitoring Details	14
	5.1 Ambient air quality monitoring	14
	5.2 Ambient noise level monitoring	14
	5.3 Soil Quality monitoring	14
	5.4 Ground water quality monitoring	14
	5.5 Surface water quality monitoring	14
6.	Conclusion	15

LIST OF ANNEXURE

S. No	List of Contents
Annexure 1	Copy of Environmental Clearance
Annexure 2	Consent To Establish
Annexure 3	CMWSSB Approval letter
Annexure 4	Environment Cell Roles and Responsibilities
Annexure 5	Green belt Photographs
Annexure 6	Environmental Monitoring Reports
Annexure 7	Screenshot of compliance report uploaded in website
Annexure 8	Screenshot of EC copy uploaded in website
Annexure 9	Environmental Monitoring Photographs
Annexure 10	Form V Acknowledgement copy

1.0 PROJECT DETAILS

Name of the Project	SIPCOT Industrial Park, Pillaipakkam
Name of the Proponent	State Industries Promotion Corporation of Tamil Nadu Ltd.
Location	Pillaipakkam, Navalur & Vengadu Villages, Sriperumbudur Taluk, Kancheepuram District, Tamil Nadu.
EC. No	SEIAA/TN/EC/8(b)/112/F-411/2010 dated: 11.02.2011 (Enclosed as Annexure -1)
Total Development Area	342.915 hectare
Water Requirements	1 MGD Source: CMWSSB
Project Cost	Rs.585 Crores

3.0 SITE PHOTOGRAPHS





4.0 SIX MONTH ENVIRONMENTAL CLEARANCE COMPLIANCE STATEMENT

PART A- SPECIFIC CONDITIONS

I. CONSTRUCTION PHASE

Construction Phase	Not applicable since construction is completed.
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Consent to Establish has been obtained from TNPCB and CTE copy is enclosed as **Annexure 2**.

Individual Industries are mandated to obtain CTE & CTO.

II. OPERATION PHASE

S.NO	CONDITIONS	STATUS OF COMPLIANCE
i.	The water requirement shall be met from the Chembarambakkam Lake through CMWSSB as committed, by you (the proponent).	The water requirement is being met from the Chembarambakkam Lake and TTRO water through CMWSSB. CMWSSB allotment letter is enclosed as Annexure 3 .
ii.	The measures contemplated in the EIA report shall be adhered to by the SIPCOT	Condition is being complied.
iii.	Discharge of treated sewage shall conform to the norms & standards prescribed by the Tamil Nadu Pollution Control Board.	SIPCOT has mandated all member units to have their own STP to handle the sewage as per the prescribed standards.
iv.	The SIPCOT shall house in the Industrial park only industries that do not attract the provision of EIA Notification 2006 as committed.	Condition noted. If any EC category industries are approached then SIPCOT mandates the unit to obtain separate environmental clearance from MoEF&CC / SEIAA.
v.	The allotted industries inside the SIPCOT premises shall obtain consent from the TNPCB.	Condition is being complied. Individual industries are mandated to obtain all necessary statutory approvals / clearances.
vi.	There shall be no discharge of effluent outside the SIPCOT Industrial Park at any time.	Condition is being complied. SIPCOT has mandated to all member units to have their

S.NO	CONDITIONS	STATUS OF COMPLIANCE
		own ETP with zero liquid discharge system and to handle their own domestic waste water as per the prescribed standards.
vii.	No drawl of ground water is permitted within the SIPCOT Industrial Park premises.	Condition is being Complied. SIPCOT has mandated to all member units not to draw ground water within their premises.
viii.	SIPCOT shall mandate the member units of the Industrial Park to discharge emissions within permissible limits only and to install adequate APC measures and to allot 30% of the plot area for green belt development and to install RWH structures.	Condition is being Complied. SIPCOT has instructed the individual industries to follow applicable rules and guidelines.
ix.	The unit shall furnish separate plan of action for disposal of treated sewage during monsoon months such as optimal minimized usage of water, regulate the application of treated sewage to avoid stagnation etc.	All member units are advised to comply with. SIPCOT has mandated to all member units to have their own ETP with zero liquid discharge system and to handle their own domestic waste water as per the prescribed standards. Hence water stagnation is envisaged.
x.	Organic converter shall be installed for treating the organic waste and sludge from septic tank and the treated mass shall be used as manure.	All member units are advised to comply with.
xi.	Rain water harvesting for roof run-off and surface run-off, as per plan submitted should be implemented. Before recharging the surface runoff, pre-treatment with screens, settlers etc. must be done to remove suspended matter, oil and grease.	All member units are advised to comply with.
xii.	The Plastic wastes shall be segregated and disposed through authorized recyclers.	All member units are advised to comply with.
xiii.	A First Aid Room shall be provided with qualified personnel during operation of the	All member units are advised to comply with.

S.NO	CONDITIONS	STATUS OF COMPLIANCE
	project.	
xiv.	Adequate fire protection equipment and rescue arrangements should be made.	All member units are advised to comply with.
xv.	A separate cell shall be formed and kept in readiness with suitable trained personnel for handling of firefighting equipments and operations.	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 Roles and responsibilities of Environment cell with Organogram is attached as Annexure - 4 . Further, individual industries will have qualified trained personnel for handling of fire fighting equipments operations.
xvi.	The acoustic enclosures shall be installed at all noise generating equipments such as DG sets, air conditioning systems etc. and the noise level shall be maintained as per MoEF, CPCB, TNPCB guidelines / norms both during day and night time.	All member units are instructed to follow all applicable rules and guidelines.
xvii.	The green belt design along the periphery of the plot shall achieve attenuation factor conforming to the day and night noise standards prescribed for residential land use. The open spaces inside the plot shall be suitably landscaped and covered with vegetation of suitable variety	Condition is being complied. Photographs of the green belt developed within the industrial park are enclosed as Annexure -5 .
xviii	Application of solar energy should be incorporated for illumination of common	Condition will be complied. All member units are advised to comply with.

S.NO	CONDITIONS	STATUS OF COMPLIANCE
	areas, lighting for gardens and street lighting in addition to provision for solar water heating. A hybrid system or fully solar system for a portion of the buildings shall be provided.	
xix.	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.	Condition is being complied.
xx.	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 months' time.	All member units are instructed to follow all applicable rules and guidelines.

PART – B. GENERAL CONDITIONS (Construction and Operation Stage)

S.NO	CONDITIONS	STATUS OF COMPLIANCE
1.	It is mandatory for the Project Proponent to furnish to the SEIAA, Half yearly compliance report in Hard and Soft copies on 1st June and 1st December of each calendar year in respect of the conditions stipulated in the prior Environmental Clearance.	Condition is being complied.
2.	In the case of any change(s) in the scope of the project, a fresh Environmental Clearance from the SEIAA shall be obtained	Condition noted. There is no change in scope of the project.
3.	The SEIAA reserves the right to add additional safeguard measures subsequently, if found necessary and to take action including	Agreed to the condition.

S.NO	CONDITIONS	STATUS OF COMPLIANCE
	<p>revoking of the Environmental Clearance under the provisions of the Environment (Protection) Act,1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.</p>	
4.	<p>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, other statutory and other authorities as applicable to the project shall be obtained by project proponent from the competent authorities.</p>	<p>Individual member units are mandated to obtain all necessary statutory clearances and approvals.</p>
5.	<p>The project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing the public that</p> <ul style="list-style-type: none"> i) The project has been accorded Environmental Clearance ii) Copies of clearance letters are available with the Tamil Nadu Pollution Control Board. iii) Environmental Clearance may also be seen on the website of the SEIAA. (www.seiaa.tn.gov.in). <p>The advertisement should be made within. 7 days from the date of issue of the clearance letter and a copy of the same shall be forwarded to the SEIAA.</p>	<p>Condition complied.</p>
6.	<p>All the stipulations stated under Part-A and Part B above would be enforced in addition to the provisions of the Water (Prevention and</p>	<p>Condition Noted.</p>

S.NO	CONDITIONS	STATUS OF COMPLIANCE
	Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981,the Environment (Protection) Act, 1986 and EIA Notification, 2006.	
7.	Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it is found that Construction of the project has been started without obtaining Environmental Clearance, and for action for any violation of any condition stipulated in Part - A & Part - B of the Environmental Clearance.	Condition Noted.
8.	This Environmental Clearance is subject to final orders of the Hon'ble Supreme Court of India in the matter of Goa foundation Vs. Union of India in Writ Petition (civil) No.460 of 2004 as may be applicable to this project.	Condition Noted.
9.	This Environmental Clearance is valid for five years from the date of issue.	Condition Noted.
10.	Incremental pollution loads on the ambient air quality, noise and water quality shall be periodically monitored after commissioning of the project and report furnished to the Tamilnadu Pollution Control Board.	Condition is being complied. Environmental Monitoring report of ambient air quality, noise and water quality is enclosed as Annexure-6 .
11.	The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by mail) on incremental pollution load to the Regional Office of MoEF, Bengaluru, the Zonal Office of CPCB, Bengaluru and the TNPCB. This shall also be put on the website of the	Condition is being complied. Screenshot of compliance report uploaded in website is enclosed as Annexure-7 .

S.NO	CONDITIONS	STATUS OF COMPLIANCE
	Company by the proponent.	
12.	The criteria pollutant levels namely; SPM, RS PM, SO ₂ , NO _x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the complex in the public domain.	Ambient air quality is monitored periodically and the report is enclosed as Annexure-6 .
13.	A copy of the clearance letter shall be sent by the proponent to the Commissioner, Sriperumbudur Panchayat Union, Sriperumbudur Tk, Kancheepuram District and the Local NGO if any, from whom suggestions/representations. If any were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.	Condition is complied. EC copy is uploaded in the website and the screenshot is enclosed as Annexure-8 .

5.0 ENVIRONMENTAL MONITORING DETAILS

It is mandatory to submit six monthly EC compliance report to MoEF & CC Regional Office by the proponent. For the purpose of submitting Six-Monthly EC Compliance report, environmental monitoring was carried out at site by M/s. Hubert Enviro Care Systems Pvt. Ltd for the period of April 2023 to September 2023.

5.1 Ambient Air Quality monitoring

During operation phase, particulate matter and gaseous emissions are likely to arise from the site movement of vehicles, operation of DG sets etc., the ambient air quality parameters such as Particulate matter $<10\mu$ (PM10), Particulate matter $<2.5\mu$ (PM 2.5), Sulphur dioxide, Oxides of Nitrogen (NOx) and Carbon monoxide were monitored. The test report of ambient air quality for the period of April 2023 to September 2023 is enclosed as **Annexure - 6**.

5.2 Ambient Noise level monitoring

Ambient noise quality was monitored and the test report of ambient noise recorded during the period of April 2023 to September 2023 is enclosed in **Annexure - 6**.

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 April 2023 to September 2023 is enclosed as **Annexure - 6**.

5.4 Ground water quality monitoring

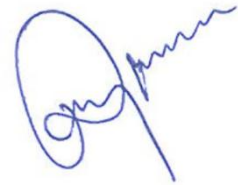
Ground water was tested for various water quality parameters during April 2023 to September 2023. The test report of ground water collected and analyzed is enclosed as **Annexure - 6**.

5.4 Surface water quality monitoring

Surface water was collected for various water quality parameters during April 2023 to September 2023. The test report of surface water collected and analyzed is enclosed as **Annexure - 6**.

6.0 CONCLUSION

1. The environmental monitoring was carried out at site during the period of April 2023 to September 2023.
2. All the conditions stipulated in Environmental Clearance are complied / being complied.



Dr. RAJKUMAR SAMUEL
Director Technical

Name: Dr. Rajkumar Samuel
Designation: Director Technical
Company Name: Hubert Enviro Care
Systems Private Limited

ANNEXURE

Thiru.T.S.Srinivasamurthy, I.F.S.,
DIRECTOR OF ENVIRONMENT AND
MEMBER SECRETARY

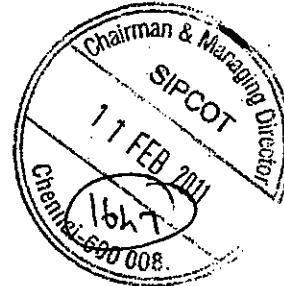


STATE LEVEL ENVIRONMENT
IMPACT ASSESSMENT AUTHORITY,
TAMILNADU,
4-D, Panagal Maligai, 1 Jeen Road,
Saidapet, Chennai-600 015.

Letter No. SEIAA / TN/EC/8(b)/112/F- 411/2010 / dt.11.02.2011

To

The Chairman & Managing Director,
M/s.SIPCOT Limited,
19/A, Rukmani Lakshmipathy Road,
Egmore, Chennai-600 008.



Sir,

Sub: SEIAA, TN - Environmental Clearance for development of SIPCOT Industrial Park at SF.No - Vide Annexure, Pillaipakkam, Navalur & Vengadu Villages, Sriperumbudur Taluk, Kancheepuram District by M/s. SIPCOT - Issued- Regarding.

This has reference to your application No. Nil dated 29.11.2010 submitted to the State Level Environment Impact Assessment Authority, Tamil Nadu seeking Environmental Clearance under the Environment Impact Assessment Notification, 2006.

It is noted, inter alia, that the project proposal is for the infrastructural development of an Industrial park at SF.No. Vide Annexure of Pillaipakkam, Navalur & Vengadu Villages, Sriperumbudur Taluk, Kancheepuram District as per the application submitted. The total area of development is 342.915 ha and total built-up area as reported is 740.10 acres to accommodate industries that does not attract the provision of EIA Notification 2006, mainly falling under mechanical fabrication / manufacturing category of industries. The member units will be required to take consent from the TNPCB.

As a developer the SIPCOT has proposed to provide infrastructure facilities like roads, storm water drains, street lights, water supply, avenue plantations etc. SIPCOT proposes to allot only lands to the industrial entrepreneurs and to insist them to maintain ZLD in accordance with the TNPCB norms.

Total water requirement for the project is 1 MGD which will be met from the Chembarambakkam Lake vide G.O.Ms.No.734, dt.22.12.1997 through CMWSSB. It has been proposed to provide septic tank with soak pit for treating the 2 KLD sewage generated from the administrative buildings of SIPCOT.

The allotted units will be mandated by the SIPCOT to put up ZLD based Effluent Treatment Plants and will completely recycle or reuse the treated effluent in the process, utilities and for green belt development. No disposal of effluent outside the premises will be permitted by the SIPCOT.

The member units will be mandated by the SIPCOT to discharge emissions within permissible limits only and to install adequate APC measures. Process solid waste & ETP sludge will be collected, stored temporarily and the member units will be mandated to dispose the solid waste to the offsite management facility. The member units will be mandated to allot 10% of the plot area for parking of vehicles, 30% of the plot area for green belt development and to install RWH structures. For power requirement the SIPCOT has proposed to allot 10 acres of land within their premises to the TNEB for setting up of sub-station. The total cost of the project is about Rs. 585 Crores (Variable).

The Proposal has been appraised by the State Level Expert Appraisal Committee in its meeting held on 07.01.2011 as per the prescribed procedure in the EIA Notification, 2006 and on the basis of the mandatory documents enclosed with the application.

The project activity is covered in 8(b) of the Schedule and is of "B₂" category. The SEAC in its meeting held on 07.01.2011 decided as follows:

"As per the amendment dt.01.12.2009 to the EIA Notification 2006, the Industrial Estate of area less than 500 hectare but contains building and construction projects > 20,000 sq meter and or development area more than 50 hectare will be treated as activity listed at serial no. 8(a) or 8(b) in the schedule, as the case may be.

In this proposal, no. 'A' or 'B' category industry has been proposed to be housed and also the development area (342.915 hectare) is more than 50



STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

hectare and hence this project is considered as 8(b) category which requires EIA report and does not require Public Hearing .”

Therefore it does not require Public Consultation as per Para 7(i) III Stage (3) (d) “Public Consultation” of EIA Notification, 2006.

The SEAC, after due consideration of the relevant documents submitted by the Project Proponent and additional clarifications furnished in response to its observations, has recommended to the SEIAA, Tamil Nadu to grant Environmental Clearance to this project. The proposal was placed before the SEIAA, Tamil Nadu in its meeting held on 08.02.2011.

The SEIAA decided to accept the recommendations of the SEAC and to grant Environmental Clearance to the project under the provisions of the EIA Notification dated 14th September, 2006, as amended subject to the strict compliance of the terms and conditions stipulated below:

PART A- SPECIFIC CONDITIONS

Construction Phase

- i) **“Consent for Establishment” shall be obtained from the Tamil Nadu Pollution Control Board and a copy shall be submitted to the SEIAA, Tamil Nadu before taking up of any construction activity at the site.**
- ii) **The project should be commissioned only after securing water supply connection from the Chembarambakkam Lake through CMWSSB.**
- iii) **The excavated earth / construction debris must be used within the premises only.**
- iv) **Adequate drinking water and sanitary facilities should be provided for construction workers at the site. The safe disposal of waste water and**

- solid wastes generated during the construction phase should be ensured.
- v) All required sanitary and hygienic measures should be in place before starting construction activities and they have to be maintained throughout the construction phase.
 - vi) For disinfection of waste-water, system using ultra violet radiation shall be adopted.
 - vii) For Solid-waste management, composting arrangements shall be provided for biodegradable waste at site.
 - viii) The e - waste generated shall be handed over to the authorized recyclers.
 - ix) All the labourers to be engaged for construction should be screened for health and adequately treated before and during their employment on the work at the site.
 - x) A First Aid Room shall be provided with qualified personnel during operation of the project.
 - xi) The entire quantum of top soil excavated during construction activities should be stored for use in horticulture/ landscape development within the project site.
 - xii) Disposal of muck, generated during the construction phase should be so managed as not to create any adverse effect on the neighboring areas and communities and be disposed of only in approved sites with the approval of the concerned local body with necessary precautions for general safety and health aspects of people.
 - xiii) Soil and ground water samples shall be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.
 - xiv) Construction spoils and spills including bituminous materials and other hazardous materials must not be allowed to contaminate water courses. The dump sites for such materials must be impervious so that they do not leach into the ground water.



STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

- xv) Low sulphur diesel shall be used for the 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.
- xvi) Vehicles hired for bringing construction materials to the site should be in good operable condition and should conform to air and noise emission standards, prescribed by TNPCB/CPCB. The vehicles should be operated only during non-peak hours.
- xvii) Ambient air and noise level 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 construction phase and results of monitoring shall be furnished to the Tamilnadu Pollution Control Board. Adequate measures to reduce air and noise pollution during construction shall be adopted, conforming to the norms prescribed by the TNPCB on noise limits.
- xviii) Building materials composed wholly or partly of fly Ash should be used in the construction activities as per the provision of Fly ash Notification of September, 1999 as amended in August, 2003.
- xix) Ready mixed concrete must be used in building construction.
- xx) Storm water control and its re-use shall be as per CGWB and BIS standards for various applications.
- xxi) Water demand during construction should be reduced by use of pre-mixed concrete, curing agents and other best practices prevalent.
- xxii) 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.

- xxiii) Use of glass may be reduced by up to 40% to reduce the electricity consumption load on air conditioning. If necessary, high quality double glass with special reflecting outside coating shall be used for windows.
- xxiv) Roof should be designed to meet prescriptive requirement of Energy Conservation Building Code (ECBC) by the use of appropriate thermal insulation material.
- xxv) Opaque wall should be made to meet prescriptive requirement as per Energy Conservation Building Code which is mandatory for all air conditioned spaces by use of appropriate thermal insulation material.
- xxvi) Proper approach road for fire fighting vehicles and for rescue operations in the event of emergency shall be provided.
- xxvii) Adequate fire protection equipments and rescue arrangements should be made.
- xxviii) A separate cell shall be formed and kept in readiness with suitable trained personnel for handling of fire fighting equipments / operations.
- xxix) Design of buildings should be in conformity with the Seismic Zone Classification.
- xxx) All Energy Conservation Building Code (ECBC) norms shall be adopted.
- xxxi) Rubber padding to absorb noise while loading & unloading operation should be provided.
- xxxii) The Environmental Clearance does not absolve the applicant/proponent of his obligation/requirement to obtain other statutory and administrative clearance from other statutory and administrative authorities.
- xxxiii) This Environmental Clearance does not imply that the other statutory / administrative clearances shall be granted to the project by the concerned authorities. Such authorities would be considering the project on merits and take decisions independently of the Environmental Clearance.
- xxxiv) The probable date of commissioning of the project supported with necessary bar charts shall be furnished to the SEIAA, Tamil Nadu.



STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

Operation Phase

- i) The water requirement shall be met from the Chembarambakkam Lake through CMWSSB as committed, by you (the proponent).
- ii) The measures contemplated in the EIA report shall be adhered to by the SIPCOT.
- iii) Discharge of treated sewage shall conform to the norms & standards prescribed by the Tamil Nadu Pollution Control Board.
- iv) The SIPCOT shall house in the Industrial park only industries that do not attract the provision of EIA Notification 2006 as committed.
- v) The allotted industries inside the SIPCOT premises shall obtain consent from the TNPCB.
- vi) There shall be no discharge of effluent outside the SIPCOT Industrial Park at any time.
- vii) No drawal of ground water is permitted within the SIPCOT Industrial Park premises.
- viii) SIPCOT shall mandate the member units of the Industrial Park to discharge emissions within permissible limits only and to install adequate APC measures and to allot 30% of the plot area for green belt development and to install RWH structures.
- ix) The unit shall furnish separate plan of action for disposal of treated sewage during monsoon months such as optimal / minimized usage of water, regulate the application of treated sewage to avoid stagnation etc.
- x) Organic converter shall be installed for treating the organic waste and sludge from septic tank and the treated mass shall be used as manure.

- xi) Rain water harvesting for roof run-off and 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.
- xii) The Plastic wastes shall be segregated and disposed through authorized recyclers.
- xiii) A First Aid Room shall be provided with qualified personnel during operation of the project.
- xiv) Adequate fire protection equipments and rescue arrangements should be made.
- xv) A separate cell shall be formed and kept in readiness with suitable trained personnel for handling of fire fighting equipments / operations.
- xvi) The acoustic enclosures shall be installed at all noise generating equipments such as DG sets, air conditioning systems, etc. and the noise level shall be maintained as per MoEF / CPCB / TNPCB guidelines / norms both during day and night time.
- xvii) The green belt design along the periphery of the plot shall achieve attenuation factor conforming to the day and night noise standards prescribed for residential land use. The open spaces inside the plot shall be suitably landscaped and covered with vegetation of suitable variety.
- xviii) Application of solar energy should be incorporated for illumination of common areas, lighting for gardens and street lighting in addition to provision for solar water heating. A hybrid system or fully solar system for a portion of the buildings shall be provided.
- xix) 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.
- xx) 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.



STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

PART-B. GENERAL CONDITIONS (Construction and Operation stage)

- 1) It is mandatory for the Project proponent to furnish to the SEIAA, Half yearly compliance report in Hard and Soft copies on 1st June and 1st December of each calendar year in respect of the conditions stipulated in the prior Environmental Clearance.
- 2) In the case of any change(s) in the scope of the project, a fresh Environmental Clearance from the SEIAA shall be obtained.
- 3) The SEIAA reserves the right to add additional safeguard measures subsequently, if found necessary and to take action including revoking of the Environmental Clearance under the provisions of the Environment (Protection) Act, 1986, to ensure effective implementation of the suggested safeguard measures in a time bound and satisfactory manner.
- 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, other statutory and other authorities as applicable to the project shall be obtained by project proponent from the competent authorities.
- 5) The project proponent shall advertise in at least two local newspapers widely circulated in the region, one of which shall be in the vernacular language informing the public that
 - i) The project has been accorded Environmental Clearance.
 - ii) Copies of clearance letters are available with the Tamil Nadu Pollution Control Board.
 - iii) Environmental Clearance may also be seen on the website of the SEIAA(www.seiaa.tn.gov.in)

The advertisement should be made within 7 days from the date of issue of the clearance letter and a copy of the same shall be forwarded to the SEIAA.

- 6) All the stipulations stated under Part A and Part B above would be enforced in addition to the provisions of the Water (Prevention and Control of Pollution) Act, 1974, the Air (Prevention and Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and EIA Notification, 2006.
- 7) Under the provisions of Environment (Protection) Act, 1986, legal action shall be initiated against the project proponent if it is found that Construction of the project has been started without obtaining Environmental Clearance, and for action for any violation of any condition stipulated in Part – A & Part – B of the Environmental Clearance.
- 8) This Environmental Clearance is subject to final orders of the Hon'ble Supreme Court of India in the matter of Goa foundation Vs. Union of India in Writ Petition (civil) No.460 of 2004 as may be applicable to this project.
- 9) This Environmental Clearance is valid for five years from the date of issue.
- 10) Incremental pollution loads on the ambient air quality, noise and water quality shall be periodically monitored after commissioning of the project and report furnished to the Tamilnadu Pollution Control Board.
- 11) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated EC conditions including results of monitored data (both in hard copies as well as by e-mail) on incremental pollution load to the Regional Office of MoEF, Bengaluru, the Zonal Office of CPCB, Bengaluru and the TNPCB. This shall also be put on the website of the Company by the proponent.
- 12) The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the complex in the public domain.



STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

- 13) A copy of the clearance letter shall be sent by the proponent to the Commissioner, Sriperumbudur Panchayat Union, Sriperumbudur Tk., Kancheepuram District and the Local NGO, if any, from whom suggestions /representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the Company by the proponent.

[Signature] 11/2/11
Member Secretary,
State Level Environment Impact
Assessment Authority,
Tamil Nadu.

Copy to:-

1. The Secretary to Government, Environment & Forests Dept,
Govt. of Tamil Nadu, Fort St. George, Chennai - 9.
2. The Secretary to Government, Industries Dept,
Govt. of Tamil Nadu, Fort St. George, Chennai - 9.
3. The Chairman, Central Pollution Control Board, Parivesh Bhavan,
CBD Cum-Office Complex, East Arjun Nagar, New Delhi 110032.
4. The Member Secretary, Tamil Nadu Pollution Control Board,
76, Mount Salai, Guindy, Chennai-600 032.
5. The CCF, Regional Office, Ministry of Environment & Forest (SZ),
Kendriya Sadan, IV floor, E&F wings, 17th Main Road,
Koramangala II Block, Bangalore - 560034.
7. Monitoring Cell, I A Division, Ministry of Environment & Forests,
Paryavaran Bhavan, CGO Complex, New Delhi 110003.
8. The District Collector, Dt. Collectorate,
Kancheepuram District.

9. The Commissioner Sriperumbudur Panchayat Union,
Sriperumbudur Tk, Kancheepuram District.

10. The Chief Engineer (Chennai Region),
WRO, Taramani, Chennai.

11. Stock File.



TAMILNADU POLLUTION CONTROL BOARD

131745

Annexure 2

CONSENT ORDER NO. 5844 Dated:19.03.2012.

PROCEEDINGS NO. T2/TNPCB/F-2011/W/SPR/2012 Dated:19.03.2012.

Consent for Establishment under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974, as amended in 1988.

Sub: TNPC Board Consent for establishment - M/s. SIPCOT INDUSTRIAL PARK - PILLAIPAKKAM at (Extent of 342.915 hectares (Patta land of 267.270 hectare and Pomboke land of 75.625 hectares), S.F.No: 1 etc of PILLAIPAKKAM village , 233 etc of VENGADU village 314 etc of NAVALUR VILLAGE, SRIPERUMPUDUR TALUK, KANCHEEPURAM DISTRICT - for the establishment or take steps to establish the industry under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974, as amended in 1988(Central Act 53 of 1988).

- Ref:
1. Your application No: Dated:03.06.2011
 2. IR.F.SPR1434/RL/DEE/SPR/2011 Dated:15.07.2011.
 3. Sub Committee -TSC II ITEM:NO: 68-09 Dated:28.02.2012.

Consent to establish or take steps to establish is hereby granted under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974, as amended in 1988 (Central Act 53 of 1988) (hereinafter referred to as 'The Act') and the Rules and Orders made there under to

The Chairman cum Managing Director,
M/s. SIPCOT INDUSTRIAL PARK - PILLAIPAKKAM,
Kancheepuram District

(hereinafter referred to as 'The Applicant') authorising him to establish to take steps to establish the industry in the site mentioned below:

at S.F.No: 1 etc of PILLAIPAKKAM Village ,
233 etc of VENGADU Village 314 etc of
NAVALUR VILLAGE, SRIPERUMPUDUR TALUK,
KANCHEEPURAM DISTRICT.



TAMILNADU POLLUTION CONTROL BOARD

This Consent to establish is valid for two years, Or till the industry obtains consent to operate under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974, as amended in 1988 whichever is earlier.

Sd/- xxx

Chairman
TAMILNADU POLLUTION CONTROL BOARD
CHENNAI

The Chairman cum Managing Director,

M/S SIPCOT INDUSTRIAL Ltd,

19/A, Rukmani Lakshmi Pathy Road,

Egmore

Chennai - 600 008.

Copy to:

1. The District Environmental Engineer
Tamilnadu Pollution Control Board
Sriperumbudur - For information and necessary action.
KANCHI DEPT. DE
2. The Commissioner,
Sriperumbudur Panchayat Union,
KANCHI DEPT. DE
3. Technical file.
4. Spare

//forwarded by order//

S. Sivaraj
for CHAIRMAN 21/3/12

RSG/193/12

21/3/12



TAMILNADU POLLUTION CONTROL BOARD

SPECIAL CONDITIONS

1. DETAILS OF PRODUCTS MANUFACTURED:

Sl. No	Description	Quantity/Month
	The Industrial Park undertake development, maintenance of the common infrastructure such as roads, water supply, Storm water drainage system and establishment of Mechanical fabrication/ Manufacturing and Allied industries only.	

1. This consent to establish is valid for the manufacture of products and the rate of production mentioned above. Any change in rate of and the quantity or quality of the products has to be brought to the notice of the Board.
2. The unit shall install Sewage Treatment Plants as proposed, to ensure that the effluent to be discharged shall satisfy the standards prescribed by the Board for disposal of effluent into inland surface waters/public sewers/marine coastal areas/on land for irrigation.
3. The unit shall install sewage treatment system for the treatment of waste water arising out of the sanitary facility and waste water generated from canteen.
4. The unit shall construct effluent drains/cable drains/storm water drains separately and provide different colour sign boards along with alignment of various drains as indicated in the site plan furnished by the industry.
5. Each vessel/reactor should have its own catch pit for the collection of pills and each pump in the process section must be mounted on its own catch pit with the suction line of the pump connected to pit to empty periodically/regularly/continuously.
6. It has to be ensured by the unit that the floors with the expanded metal, slotted angle stool sinks, steel gates shall be built to the maximum possible to avoid floor washings.
7. If the plant layout demands that the vessels should be installed in upper floor, it shall provide suitable system to minimise spill/leakages and also to collect and drain the spillages into effluent drain leading to the Effluent Treatment Plant by providing suitable gradient to the properly lined bottom floor.
8. The unit shall construct tank or lagoon of adequate capacity with compatible impervious material for the storage of hazardous/solid wastes.
9. The unit shall ensure that the corrosion prone areas and construction material liable to atmospheric and process induced corrosion shall be given special attention for immediate replacement with least preventive maintenance.



TAMILNADU POLLUTION CONTROL BOARD

10. The unit has to provide facilities separately outside the main production plant for carrying out detoxification operations if any.

11. In order to collect spills from a particular vessel before the spilled materials get a chance for contamination with spills from another vessel, the two vessels must be installed at sufficient distance to ensure that inter contamination cannot take place.

12. Flange joints in the pipelines should be avoided wherever possible.

13. The unit shall establish laboratory with adequate analytical equipments for analysing the trade effluent/sewage as well as samples of water collected from the wells nearby if any.

14. The unit shall construct compound wall around the boundary of the unit, to a height of metres from ground level.

15. The unit shall appoint an Environmental Engineer with experience of minimum three years in maintenance of waste water treatment plants, before commissioning, along with supporting staff, chemist, technician and operators. 5)

16. Following location specific conditions must be satisfied:

(i) - pl. vide Annexure

(ii)

(iii)

17. The following process specific conditions must be satisfied:

(i)

- pl. vide Ann-

(ii)

(iii)

18. The applicant unit, M/s. SIPCOT INDUSTRIAL PARK -PILLAIPAKKAM at PILLAIPAKKAM, NAVALUR and VENGADU VILLAGES, SRIPERUMPUDUR TALUK, KANCHEEPURAM DISTRICT (Extent of 342.915 hectares (Patta land of 267.270 hectare and Pomboke land of 75.625 hectares), is legally responsible under the provisions of enacted environmental Acts for the establishment, O & M of the sewage treatment plants, development and maintenance of the common infrastructure such as roads, water supply, sewage treatment plant, storm water drainage system, sewerage system for the proposed beneficiary units of Mechanical fabrication/Manufacturing



TAMILNADU POLLUTION CONTROL BOARD

1405
163

- and Allied industries only. (as per para 4.1 in Impact Evaluation and Assessment Chapter of Rapid EIA-EMP.) The applicant unit shall ensure that there shall be no discharge of effluents on land or into any water resources.
19. The applicant Industrial Park shall house only Mechanical fabrication/Manufacturing and Allied industries only. (as per para 4.1 in Impact Evaluation and Assessment Chapter of Rapid EIA-EMP.)
20. The applicant Industrial Park shall ensure that no industry shall be permitted to carry out establishment works without obtaining Consent for Establishment of the TNPCB.
21. No application for consent to establish pertaining to red and ultra red category units as per TNPCB, B.P No.18, dt:11.06.07 and activity falling under Category A or B stated in the EIA Notification, 2006 within the applicant premises of M/s. SIPCOT INDUSTRIAL PARK -PILLAIPAKKAM at PILLAIPAKKAM, NAVALUR and VENGADU VILLAGES, SRIPERUMPUDUR TALUK, KANCHEEPURAM, DISTRICT. (Extent of 342.915 hectares (Patta land of 267.270 hectare and Pomboke land of 75.625 hectares),
22. The applicant unit shall ensure that all the beneficiary units have to apply for consent to establish under the Water & Air Acts and no establishment activities shall be carried out by the beneficiary units without obtaining the consent to establish under the Water & Air Acts.
23. The applicant unit shall furnish appropriate land use reclassification certificate obtained from the competent authority before applying CTO.
24. The applicant unit shall furnish ground water clearance from the competent authority, from the Public Works Department, as per G.O.Ms.No.51, dt. 11.2.2004, before applying CTO.
25. The applicant unit shall have to obtain all other required clearances for setting up Industrial Park for steel fabrication units from concerned competent authority.
26. Sewage shall be disposed after adequate treatment and confirm to the following standards and it shall be utilized on land for gardening, plantation and irrigation within the park premises.

pH	5.5 – 9.0
BOD	Less than 20 mg/l
Suspended Solids	Less than 30 mg/l



TAMILNADU POLLUTION CONTROL BOARD

27. SIPCOT shall incorporate the following condition in the individual land deed to be allotted to the allottees, 30% of the allotted area shall be maintained for Greenery so as to make a buffer zone all around the Industrial Park.

28. The applicant unit shall have to comply with provisions of Hazardous Waste (Management & Handling) Rules 1989 as amended from time to time.

29. The applicant unit shall provide Electromagnetic flow meter (EMFM) with computer recording arrangements to assess the quantity of sewage effluent (to record the instantaneous and cumulative quantity of effluent) at the following points:

- i. Outlet of the equalization tank.
- ii. Outlet of the treated effluent collection tank

30. The applicant unit shall establish a laboratory and technical crew comprising of environmental engineers/scientists, chemists, experienced mechanics and electricians with adequate training in (O&M) of the proposed effluent treatment systems / air pollution control measures in order to maintain the wholesomeness of the Industrial Park.

31. The applicant unit shall obtain ISO 14000 certification for its environmental compliance.

32. 30 % of the land area acquired by the applicant unit including all beneficiary units shall be developed as a green belt with trees having a thick canopy cover. The applicant unit shall also maintain the trees planted outside the premises. The species of trees should be chosen in consultation with the local DFO and seedlings should be at least 2 mt. tall. If no space is available within the premises, trees shall be planted outside the premises. The unit shall adopt drip irrigation system for green belt development.

33. The consent to establish is issued without prejudice to the right of Tamilnadu Pollution Control Board to collect consent fees for this consent order at the rates to be revised by the Government of Tamilnadu.

34. The applicant unit must provide Rainwater Harvesting facilities within the premises so as to increase the recharging of ground water in that area. Necessary permission shall be obtained from irrigation department for rainwater harvesting and recharging work. Basic survey of existing contours should be made to study the present natural drainage system. Natural drain/flow should not be obstructed by any kind of work for this. The applicant unit should submit detailed report stating technical aspects and methodology of water harvesting system along with all components and get approval thereof.



TAMILNADU POLLUTION CONTROL BOARD

35. The applicant unit shall furnish the Environmental Statement for the financial year ending the 31st March of Tamilnadu Pollution Control Board on or before the thirtieth day of September every year in Form V as per Rule 14 of the Environmental (Protection) Rules, 1986 as amended.
36. The premises of the industrial park both inside and outside should be kept clean. Attention should be given to good housekeeping within the premises and the immediate vicinity of the factory. All pipes, valves, sewers and drains shall be leak proof. Floor washings should be drained into the effluent collection system only and should not be drained into storm water drains or open areas. There should not be any debris, plastic wastes other rubbish etc., lying within or outside the factory.
37. The applicant unit and all its beneficiary units should not start any processing work including trial run without obtaining consent to operate from the Tamilnadu Pollution Control Board.
38. The applicant unit shall have to submit the returns in prescribed form regarding water consumption and shall have to make payment of water cess to the Board under the Water Cess Act 1977.
39. The solid waste generated in the complex should be segregated, treated and disposed off as per the provisions contained in the Municipal Solid Waste Rules 2000.
40. The applicant unit M/s. SIPCOT INDUSTRIAL PARK PILLAIPAKKAM shall ensure that its beneficiary units have authorization of the Board for waste oil/used oil generated from the applicant unit, and shall be managed / handled as per Hazardous Waste (Management & Handling) Rules 1989 as amended.
41. The applicant unit should obtain prior authorization of the Board for Bio Medical waste generated from health care facility and shall be managed and handled as per Bio Medical Waste Rules 1998.
42. The project authorities, as part of their environmental management, shall prepare and implement a scheme for protection of the flora and fauna.
43. The services like health and education facilities which may be developed as part of the complex should be accessible to the nearby villagers at an affordable price.
44. The project shall resort to solar energy to the extent possible and particularly in the supply of hot water and street lighting.
45. 28. A community welfare scheme for improving the socio-economic environment should be worked out and shall be converted into a time bound action plan. A report in this regard shall be submitted to the Board and Government for review.



TAMILNADU POLLUTION CONTROL BOARD

46. If it is established by any competent authority that the damage is caused due to their industrial activities, to any person or his property, in that case they are obliged to pay the compensation as determined by the competent authority.

47. The applicant unit shall have to register the park under the provisions of the Factories Act, 1948 and shall obtain the necessary Factory License.

48. The Environmental Management Unit / Cell shall be setup to ensure implementation and monitoring of Environmental safe guards and other conditions stipulated by statutory authorities. The Environmental Management Unit / Cell shall directly report to the Chief Executive of the organization and shall work as a focal point for internalizing Environmental Issues. This Cell shall also co-ordinate the exercise of Environmental Audit and preparation of Environmental Statements.

49. The applicant unit shall have to obtain public liability insurance policy as per PLI Act 1991 and submit the copy of the same to the Board.

50. The unit shall have and use only one outlet for the discharge of its effluent and no effluent shall be discharged without requisite treatment and without meeting with the TNPC Board Norms. The unit shall not keep any bye pass line or system or loose or flexible pipe for discharging effluent outside or even for transporting treated or untreated effluent within the premises, within effluent treatment plants or in the compound of the park premises.

51. The printed log books shall be maintained and get it certificate for a) Energy / Fuel consumption b) Waste water / gaseous flow at inlet and outlet of STP and Air Pollution Control Measures. c) Quantity of sludge generated d) Laboratory analysis / reports for each of the specified parameters of liquid effluents and sludge samples.

52. The ground water quality around the industrial Park should be monitored on a regular basis. The monitored data should be submitted to the TNPC Board once in six months.

53. Periodical medical check up of the workers should be done and records maintained as a measures to provide occupational health service to the workers.

54. The facilities to be constructed for the project shall not cause any inconvenience or disturbance to the local communities including the farmers.

55. The applicant unit, M/s. SIPCOT INDUSTRIAL PARK -PILLAIPAKKAM, shall ensure that the topsoil excavated during construction activities should be stored for use in horticulture/ landscape development within the project site.

POLLUTION PREVENTION PAYS

அகம் தூய்மை வாய்மைக்கு! புறம் தூய்மை வாழ்வுக்கு!



TAMILNADU POLLUTION CONTROL BOARD

56. The applicant unit, M/s. SIPCOT INDUSTRIAL PARK -PILLAIPAKKAM shall ensure that soil and ground water samples will be tested to ascertain that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.
57. The applicant unit, M/s. SIPCOT INDUSTRIAL PARK -PILLAIPAKKAM, shall ensure that fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September, 1999 and amended as on 27th August, 2003. (The above condition is applicable only if the project site is located within the 100 Km of thermal Power Stations.
58. The applicant unit M/s. SIPCOT INDUSTRIAL PARK -PILLAIPAKKAM, shall ensure that the approval of the competent authority shall be obtained for structural safety of the buildings due to earthquake, adequacy of fire fighting equipments, etc as per National Building Code including protection measures from lightening etc.
59. The applicant unit shall ensure that the beneficiary units are having individual ETP/STP system for the treatment of their process effluent/ domestic sewage.

Sd/xxx

CHAIRMAN,

TAMILNADU POLLUTION CONTROL BOARD
CHENNAI.

//Forwarded by order//

S. Sivaraj
21/3/12
For CHAIRMAN.

POLLUTION PREVENTION PAYS

அகம் தூய்மை வாய்மைக்கு! புறம் தூய்மை வாழ்வுக்கு!



TAMILNADU POLLUTION CONTROL BOARD

GENERAL CONDITIONS

1. The above consent to establish cannot be construed as consent to operate.
2. The industry shall make a request for grant of consent to operate atleast sixty days before the commissioning of trial production.
3. The applicant shall maintain good house keeping both within the factory and in the premises. All pipes, valves, sewers and drains shall be leak proof. Floor washings shall be admitted into the effluent collection system only and shall not be allowed to find their way to storm water drains or open areas.
4. The unit has to provide sludge and silt traps and manholes along the effluent drains for periodical desilting and desludging operation.
5. All places of storage of solid/liquid material are to be dyked with bunding facilities and the flooring within the dyked and bunding area shall be lined with impervious materials depending upon the nature of the solid/liquid to be stored.
6. As the unit proposes to utilise the treated trade effluent on inland for irrigation, the land has to be made fit for irrigation in consultation with the agricultural scientist to avoid more percolation.
7. Samples of water from the wells or any other nearby water sources have to be taken by the unit and get them analysed by the Board Laboratory to develop base line data to assess the existing water quality.
8. The unit shall provide separate power connection for the Effluent Treatment Plant and install separate energy meter for the Effluent Treatment Plant as well as for aerators if any.
9. The unit shall provide an alternate power source sufficient to operate all the facilities to be installed in Effluent Treatment Plant by the applicant.
10. The consent does not authorise or approve the construction of any physical structures or facilities, or the undertaking of any work in any natural water course.
11. Any change in the details furnished in the conditions has to be brought to the notice of the Board and got approved by the Board, before obtaining consent to operate under the said Act.
12. The unit has to comply with the provisions of Public Liability Insurance Act, 1991 to provide immediate relief in the event of any hazard to human beings, other living creatures/plants and properties while handling and storage of hazardous substances.



TAMILNADU POLLUTION CONTROL BOARD

13. Consent to operate will not be issued unless the unit complied with the conditions of consent to establish, otherwise, the order of consent to establish already issued will be revoked with immediate effect.

Sd/ xxx
CHAIRMAN

TAMILNADU POLLUTION CONTROL BOARD
CHENNAI

//Forwarded by order//

J. Senthil Kumar
For CHAIRMAN.

2/3/12

POLLUTION PREVENTION PAYS

அகம் தூய்மை வாய்மைக்கு ! புறம் தூய்மை வாழ்வுக்கு !

தமிழ்நாடு மாநில மாசுறுத்தல் கட்டுப்பாட்டு வாரியம்
TAMILNADU POLLUTION CONTROL BOARD



21 MAR 2012



TAMILNADU POLLUTION CONTROL BOARD

CONSENT ORDER NO. 5784 Dated:19.03.2012.

PROCEEDINGS NO.T2/TNPCB/F-2011/A/SPR/2012 Dated:19.03.2012.

Consent for Establishment under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, as amended in 1987.

Sub: TNPC Board - Consent for establishment - M/s. SIPCOT INDUSTRIAL PARK - PILLAIPAKKAM at (Extent of 342.915 hectares (Patta land of 267.270 hectare and Pomboke land of 75.625 hectares), S.F.No: 1 etc of PILLAIPAKKAM village , 233 etc of Vengadu village 314 etc of Navalur Village, Sriperumpudur Taluk, Kancheepuram District - for the establishment or take steps to establish the industry under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, as amended in 1987.

- Ref: 1. Your application No: Dated:03.06.2011.
2. IR.F.SPR1434/RL/DEE/SPR/2011 Dated:15.07.2011
3. Sub Committee -TSC II ITEM NO: 68-09 Dated:28.02.2012

Consent to establish or take steps to establish is hereby granted under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987 and the Rules and Orders made there under to

The Chairman cum Managing Director,
M/s. SIPCOT INDUSTRIAL PARK - PILLAIPAKKAM,
Kancheepuram District

(hereinafter referred to as 'The Applicant') authorising him to establish to take steps to establish the industry in the site mentioned below.

at S.F.No: 1 etc of PILLAIPAKKAM Village ,
233 etc of VENGADU Village 314 etc of NAVALUR VILLAGE
SRIPERUMPUDUR TALUK,
KANCHEEPURAM DISTRICT.



TAMILNADU POLLUTION CONTROL BOARD

This Consent to establish is valid for two years, Or till the industry obtains consent to operate under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981, as amended in 1987 whichever is earlier.

Sd/- xxx

Chairman

TAMILNADU POLLUTION CONTROL BOARD
CHENNAI

To

The Chairman cum Managing Director,

M/s. SIPCOT INDUSTRIAL Ltd,

19/A, Rukmani Lakshmi pathy Road,

Egmore,

Chennai - 600 008.

Copy to:

1. The District Environmental Engineer,
Tamilnadu Pollution Control Board,
Sriperumbudur. For information and necessary action.
Panchayath Union DC
2. The Commissioner,
Sriperumbudur Panchayat Union,
Panchayath Union DC
3. Technical file.
4. Spare

//forwarded by order//

S. Savaiah
for CHAIRMAN. 21/2/12
21/2/12



TAMILNADU POLLUTION CONTROL BOARD

SPECIAL CONDITIONS

1. DETAILS OF PRODUCTS MANUFACTURED:

Sl. No	Description	Quantity/Month
	The Industrial Park undertake development, maintenance of the common infrastructure such as roads, water supply, Storm water drainage system and establishment of Mechanical fabrication/ Manufacturing and Allied industries only.	

This consent to establish is valid for the manufacture of products and the rate of production mentioned above. Any change in rate of and the quantity or quality of the products has to be brought to the notice of the Board.

2. The height of the following Chimneys/stacks shall not be less than the figures indicated below for the discharge of emissions.

Chimney / stack Number	Description of Chimney	Point of discharge in Metres (Above ground level)

3. The unit shall install the following Air Pollution Control equipments / measures for the control of emissions generated from the various sources of the plant.

A. For Suspended Particulate Emission

Sl.No.	Source	Details of Control Equipment

B. For Gaseous Emission

Sl.No.	Source	Details of Control Equipment

C. For Fugitive Emissions:

Sl.No.	Source	Details of Control Equipment

4. The unit shall procure.....adequate.....Number of equipments for Continuous monitoring of Ambient Air Quality in respect of the parameters.....



TAMILNADU POLLUTION CONTROL BOARD

GENERAL CONDITIONS

1. The above consent to establish cannot be construed as consent to operate.
2. The applicant shall make a request for grant of consent to operate at least sixty days, before the commissioning of trial production.
3. The unit shall carryout Ambient Air Quality Survey atleast for stations for seasons for the collection of baseline data, on the existing Ambient Air Quality level within the plant/ outside the plant.
4. The applicant shall provide a meterological station to collect the data on wind velocity, direction, temperatures, rainfall etc.
5. The applicant shall prepare and submit a detailed Risk Assessment Report along with on-site and of-site-Emergency preparedness plan for.....within the premises of the plant as required under the Rules 13 and 14 of the Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989.
6. The unit shall install.....KVA Capacity generator exclusively for the operation of Air Pollution Control measures in case of power failure.
7. The unit shall also establish laboratory for analysis of gaseous / particulate emissions.
8. Any Change in the details furnished in the conditions has to be brought to the notice of the Board and got approved by the Board, before obtaining consent to operate under the said Act.
9. The unit has to comply with the provisions of Public Liability Insurance Act, 1991 to provide immediate relief in the event of any hazard to human beings, other living creatures/plants and properties while handling and storage of hazardous substances.
10. Consent to operate will not be issued unless the unit complied with the conditions of consent to establish, otherwise the order of consent to establish already issued will be revoked with immediate effect.

Sd/ xxx

CHAIRMAN

TAMILNADU POLLUTION CONTROL BOARD
CHENNAI.

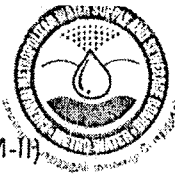
//Forwarded by order//

For CHAIRMAN

21/9/12

POLLUTION PREVENTION PAYS

அகம் தூய்மை வாய்மைக்கு! புறம் தூய்மை வாழ்வுக்கு!



CHIEF ENGINEER (O&M-II)

**CHENNAI METROPOLITAN WATER SUPPLY
AND SEWERAGE BOARD**


Lr.No:CMWSSB/C.E(O&M)II/S.E(WWT&R) / 45 TTRO-KOY / SIPCOT / 2020-21, Dated:13.04.2020

To
The Managing Director,
SIPCOT,
19-A, Rukmani Lakshmi pathi Road,
Egmore,
Chennai - 600 008.

Sub: CMWSSB – C.E(O&M-II) – S.E(W.W.T&R) – “Design, Build and Operate for 15 years (DBO) a 45 MLD capacity Tertiary Treatment Reverse Osmosis (TTRO) Plant at Koyambedu including supply, laying and maintenance of M.S. transmission main for conveying product water to various SIPCOT industries situated at Irungattukottai, Sriperumbudur and Oragadam” – Works Completed in all aspects - Inaugurated and Commissioned by the Hon'ble Chief Minister of Tamilnadu on 29.11.2019 – Supply of TTRO Water to the M/s. SIPCOT Industrial hub located at Irungattukottai, Pillaipakkam, Vallamvadagal, Sriperumbudur and Oragadam – Commenced from 18.12.2019 – Security deposit to be remitted –Requested – Reminder - Reg.

Ref: Lr.No: CMWSSB / C.E(O&M)II / S.E(WWT&R) / 45 TTRO-KOY / SIPCOT / 2019-20, Dated: 06.12.2019, 16.12.2019 & 24.01.2020.

The work of “Design, Build and Operate for 15 years (DBO) a 45 MLD capacity Tertiary Treatment Reverse Osmosis (TTRO) Plant at Koyambedu including supply, laying and maintenance of M.S. transmission main for conveying product water to various SIPCOT industries situated at Irungattukottai, Sriperumbudur and Oragadam” has been completed in all aspects and has been inaugurated & commissioned by the Hon'ble Chief Minister of Tamilnadu on 29.11.2019. The supply of TTRO product water to the M/s SIPCOT industries located at Irungattukottai, Pillaipakkam, Vallamvadagal, Sriperumbudur and Oragadam from Koyambedu TTRO plant was commenced from 18.12.2019 onwards.

In this connection, it is submitted that, the request for remittance of security deposit for an amount of Rs.2.045 Crores towards the supply of TTRO product water to M/s SIPCOT industries from Koyambedu TTRO plant has been made since 06.12.2019 and further reminders were made vide under references cited.

In this connection, it is submitted that the requisite security deposit amount has not been remitted till date, inspite of continuous follow up with officials of M/s SIPCOT.

As CMWSSB is facing financial crunch for the past more than 5 years with the deficit of about Rs.300 Crores, it is very difficult to manage to remit the Electricity consumption charges of about Rs.1.5 Crores per month towards operation of TTRO plant & Intermediate storage Pumping Stations.

Hence it is requested to cause necessary instructions to the officials to expedite the remittance of security deposit of Rs.2.045 Crores immediately through RTGS/NEFT.

This is submitted for favour of information and requested for early action in this regard.

13/04/2020
CHIEF ENGINEER (O&M-II)

பாசனம் - லண்டா மாபட்டம் - திருப்பெரும்புளர் வட்டம் - இருக்காட்டுக் கோட்டை கிராமம் - அப்பகாட் தொழில் வளாகத்தில் அமைக்கப்பட்ட தொழிற்சாலை செயல்பரம்பாக்கம் ஏரியிலிருந்து ஓடும் மறிமம் தீவனிகளுக்கு நீர்ப்பாசனம் போக ஏடுசிய நீரில் 5 மில்லியன் கன அடங்கு நீர் - வழங்கப்படும் - ஆகும் வெளியிடப் படுகிறது.

பொதுப்பணி (Public Works)

அரசு துறை (நிலை) . 134

தாள்: 31.3.1997

பலக்கடிமம்:

- 1. மேலாங்கை இயக்குநர், அப்பகாட் தேர்வுக் கமிட்டி என். 1026/96
தாள்: 2.9.1996.
- 2. தலைமைப்பொறியாளர், நீர்வள ஆதார அமைப்பு, சென்னை மண்டலம், சிறுஉத்கா ஓடும் வழங்கல்முறை கமிட்டி என். பட்டியல் 1/5250/96, தாள்: 24.12.1996.

...

பாரிவை 1ல் கட்ட கமிட்டியில் அப்பகாட், மேலாங்கை இயக்குநர் இருக்காட்டுக்கோட்டை அப்பகாட் தொழில் வளாகத்திற்கு, அங்கு அமைக்கப்பட்ட காரி தொழிற்சாலைக்கு தேவையான 1.1 மில்லியன் கன அடங்கு நீர் உட்பட மொத்தம் சுமார் 10 மில்லியன் கன அடங்கு நீர் தேவை எந்த கோட்டுக் கொண்டுள்ளார்?

2. பாரிவை 2ல் கட்ட கமிட்டியில் தலைமைப்பொறியாளர் நீர் வள ஆதார அமைப்பு சென்னை மண்டலம் மறிமம் சிறுஉத்கா ஓடும் வழங்கல் திட்டம், கட்டிட காலக்காலில் செயல்பரம்பாக்கம் ஏரியில் உள்ள நீர் நிலை ஒரே சீராக இருக்கக்கூடிய என்பும், நீரின் கொள்ளளவு 1980ம் ஆண்டு 711 மில்லியன் கன அடியாகவும், 1992ம் ஆண்டு 485 மில்லியன் கன அடியாகவும் 1996ம் ஆண்டு 2401 மில்லியன் கன அடியாகவும் இருந்திருக்கின்றன. மேலும் பதிவு செய்யப் பட்டுள்ள 13,223 ஏக்கர் சுவர்க்கட்டுகளில் தற்போது வசதியாக செயல்படுத்தப்படும் 9800 ஏக்கர் நிலங்களுக்கு நீர்ப்பாசனம் செய்தாக வேண்டும் என்ற நிலை உள்ளது என்பும் குறிப்பிட்டுள்ளார். மேலும் இத்தோடு சென்னை மாநகருக்கு இடதுசீர் வசதியும் செயல்பரம்பாக்கம் ஏரியிலிருந்து வழங்க வேண்டியிருப்பதால் நீர் இருப்பை கருத்தில் கொண்டு தாள் தனிசீர் வழங்க வேண்டும் என்ற குறிப்பிட்டுள்ளார்.

3. தலைமைப்பொறியாளர் (சென்னை மண்டலம் மறிமம் சிறுஉத்கா ஓடும் வழங்கல் திட்டம்) உட்கமிட்டியை கருத்திற்கொண்டு அப்பகாட் தொழில் வளாகத்திற்கு செயற்குறிப்பை அரசு பரிசீலித்தது.

செயல்பரம்பாக்கம் ஏரியில் நீர் இருப்பிற்கான, பதிவு செய்யப் பட்ட சுவர்க்கட்டு பகுதிகளுக்கான தேவையான தனிசீர் மறிமம் சென்னை நகருக்கு ஓடும் நீரின் தேவையான ஓடும் நீர் பூரித்த செயல்பு செயல்பரம்பாக்கம்



/சபை/ அங்குமின் அறிவிப்புகள் பற்றி கமிட்டி மன்றம்.

Handwritten signature and initials 'SE'.

Handwritten signature and date '22/4'.

Handwritten text: 'Madam, Send a copy of this to SIPWOT. GM (Tirumulu) for information.'

Handwritten notes: '24/4' and a signature.

Printed text: 'Pl. Send a copy of this to SIPWOT. GM (Tirumulu) for information.' with a signature.

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.**

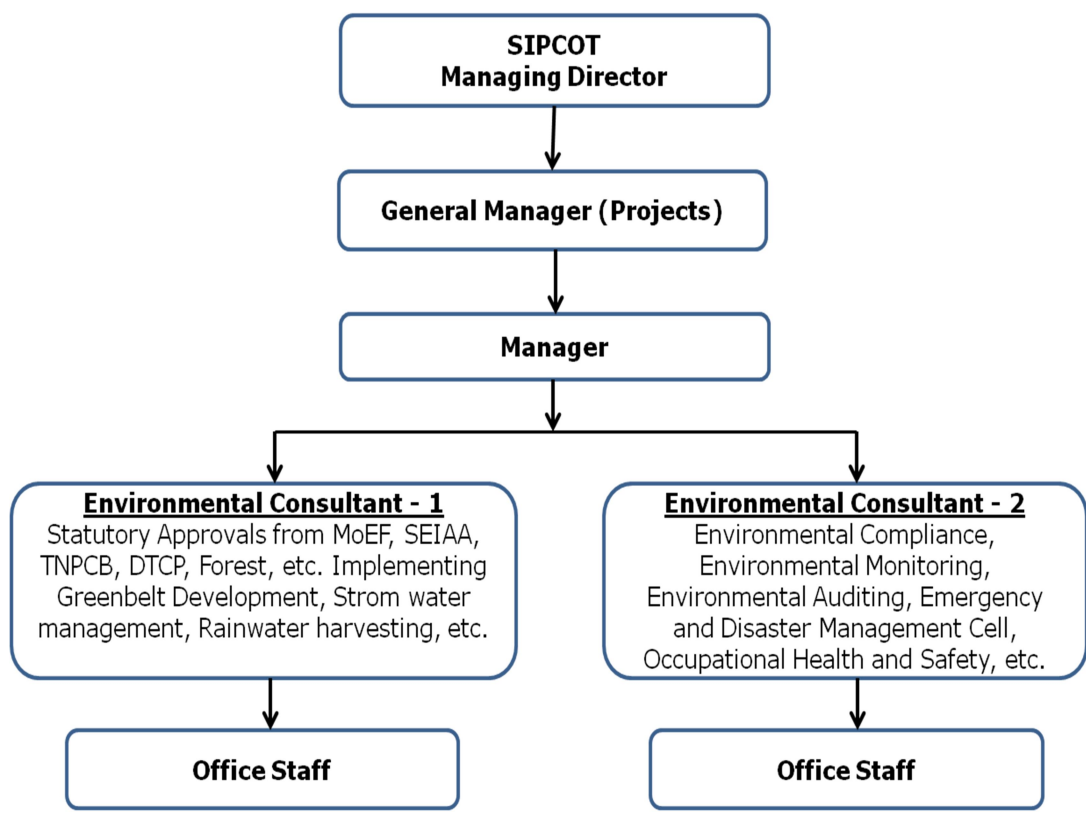


Figure - 1 Organogram for Environmental Management Cell

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.

Greenbelt Photograph





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Laboratory Services Division

(Chemical & Biological Testing)
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ISO 9001, 14001 & 45001 Certified.

TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT

Report No. : HECSL/AA/1/080923

Address of the Client : Pillaipakkam

Report Date : 14/09/2023

Sample Description : Ambient Air Quality

Sampling Location : Project Area

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 05/09/2023 -08/09/2023

Analysis Commenced On : 08/09/2023

Completed On : 14/09/2023

S.No.	Parameters	Units	Results Obtained	Test Method	NAAQ Standards : 2009	
1	Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	9.49	CPCB guide lines Volume 1: 2012	80 (24 hours)	50 (Annual)
2	Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	20.15	IS 5182 (Part - 6) : 2006	80 (24 hours)	40 (Annual)
3	Particulate Matter Size Less than 10 μm	$\mu\text{g}/\text{m}^3$	45.68	IS 5182 (Part - 23) : 2006	100 (24 hours)	60 (Annual)
4	Particulate Matter Size Less than 2.5 μm	$\mu\text{g}/\text{m}^3$	26.33	IS 5182 (Part - 24) : 2019	60 (24 hours)	40 (Annual)
5	Carbon Monoxide	mg/m^3	BLQ(LOQ 0.05)	IS 5182 (Part - 10) : 1999	4 (1 hours)	2 (8 hours)
6	Lead	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 0.05)	IS 5182 (Part - 22) : 2004	1 (24 hours)	0.5 (Annual)
7	Ozone	$\mu\text{g}/\text{m}^3$	10.15	IS 5182 (Part - 9) : 1974	180 (1 hours)	100 (8 hours)
8	Ammonia	$\mu\text{g}/\text{m}^3$	7.82	IS 5182 (Part - 25) : 2018	400 (24 hours)	100 (Annual)
9	Benzene	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 1)	IS 5182 (Part - 11) : 2006	5 (Annual)	5 (Annual)
10	Benzo(a)pyrene	ng/m^3	BLQ(LOQ 1)	IS 5182 (Part - 12) : 2004	1 (Annual)	1 (Annual)
11	Arsenic	ng/m^3	BLQ(LOQ 2)	HECS/AA/SOP/019 : 2016	6 (Annual)	6 (Annual)
12	Nickel	ng/m^3	BLQ(LOQ 10)	HECS/AA/SOP/009 : 2016	20 (Annual)	20 (Annual)
13	Volatile Organic Compounds	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 0.05)	HECS/INS/SOP/073	NA	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, $\mu\text{g}/\text{m}^3$ - Micrograms per cubic meter, mg/m^3 -Milligrams per cubic meter, ng/m^3 -Nanograms per cubic meter.

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

End of Report



[Signature]
Authorized Signatory
D. ANUSUYA

Deputy Quality Manager

TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT

Address of the Client : Pillaipakkam

Report No. : HECSL/AA/2/080923

Report Date : 14/09/2023

Sample Description : Ambient Air Quality

Sampling Location : Anakaputhur

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 05/09/2023 -08/09/2023

Analysis Commenced On : 08/09/2023

Completed On : 14/09/2023

S.No.	Parameters	Units	Results Obtained	Test Method	NAAQ Standards : 2009	
1	Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	10.46	CPCB guide lines Volume 1: 2012	80 (24 hours)	50 (Annual)
2	Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	19.38	IS 5182 (Part - 6) : 2006	80 (24 hours)	40 (Annual)
3	Particulate Matter Size Less than 10 μm	$\mu\text{g}/\text{m}^3$	22.48	IS 5182 (Part - 23) : 2006	100 (24 hours)	60 (Annual)
4	Particulate Matter Size Less than 2.5 μm	$\mu\text{g}/\text{m}^3$	24.90	IS 5182 (Part - 24) : 2019	60 (24 hours)	40 (Annual)
5	Carbon Monoxide	mg/m^3	BLQ(LOQ 0.05)	IS 5182 (Part - 10) : 1999	4 (1 hours)	2 (8 hours)
6	Lead	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 0.05)	IS 5182 (Part - 22) : 2004	1 (24 hours)	0.5 (Annual)
7	Ozone	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 10)	IS 5182 (Part - 9) : 1974	180 (1 hours)	100 (8 hours)
8	Ammonia	$\mu\text{g}/\text{m}^3$	6.16	IS 5182 (Part - 25) : 2018	400 (24 hours)	100 (Annual)
9	Benzene	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 1)	IS 5182 (Part - 11) : 2006	5 (Annual)	5 (Annual)
10	Benzo(a)pyrene	ng/m^3	BLQ(LOQ 1)	IS 5182 (Part - 12) : 2004	1 (Annual)	1 (Annual)
11	Arsenic	ng/m^3	BLQ(LOQ 2)	HECS/AA/SOP/019 : 2016	6 (Annual)	6 (Annual)
12	Nickel	ng/m^3	BLQ(LOQ 10)	HECS/AA/SOP/009 : 2016	20 (Annual)	20 (Annual)
13	Volatile Organic Compounds	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 0.05)	HECS/INS/SOP/073	NA	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, $\mu\text{g}/\text{m}^3$ - Micrograms per cubic meter, mg/m^3 -Milligrams per cubic meter, ng/m^3 -Nanograms per cubic meter.

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

End of Report




Authorized Signatory
D. ANUSUYA
Deputy Quality Manager

TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT
Address of the Client : PillaipakkamReport No. : HECSL/AA/3/080923
Report Date : 14/09/2023Sample Description : Ambient Air Quality
Sampling Location : Karunagaracheri
Sample Drawn By : Hubert Enviro Care Systems (p) Ltd
Sampling/received Date : 05/09/2023 -08/09/2023
Analysis Commenced On : 08/09/2023

Completed On : 14/09/2023

S.No.	Parameters	Units	Results Obtained	Test Method	NAAQ Standards : 2009	
1	Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	10.55	CPCB guide lines Volume 1: 2012	80 (24 hours)	50 (Annual)
2	Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	21.66	IS 5182 (Part - 6) : 2006	80 (24 hours)	40 (Annual)
3	Particulate Matter Size Less than 10 μm	$\mu\text{g}/\text{m}^3$	42.18	IS 5182 (Part - 23) : 2006	100 (24 hours)	60 (Annual)
4	Particulate Matter Size Less than 2.5 μm	$\mu\text{g}/\text{m}^3$	23.75	IS 5182 (Part - 24) : 2019	60 (24 hours)	40 (Annual)
5	Carbon Monoxide	mg/m^3	BLQ(LOQ 0.05)	IS 5182 (Part - 10) : 1999	4 (1 hours)	2 (8 hours)
6	Lead	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 0.05)	IS 5182 (Part - 22) : 2004	1 (24 hours)	0.5 (Annual)
7	Ozone	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 10)	IS 5182 (Part - 9) : 1974	180 (1 hours)	100 (8 hours)
8	Ammonia	$\mu\text{g}/\text{m}^3$	5.77	IS 5182 (Part - 25) : 2018	400 (24 hours)	100 (Annual)
9	Benzene	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 1)	IS 5182 (Part - 11) : 2006	5 (Annual)	5 (Annual)
10	Benzo(a)pyrene	ng/m^3	BLQ(LOQ 1)	IS 5182 (Part - 12) : 2004	1 (Annual)	1 (Annual)
11	Arsenic	ng/m^3	BLQ(LOQ 2)	HECS/AA/SOP/019 : 2016	6 (Annual)	6 (Annual)
12	Nickel	ng/m^3	BLQ(LOQ 10)	HECS/AA/SOP/009 : 2016	20 (Annual)	20 (Annual)
13	Volatile Organic Compounds	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 0.05)	HECS/INS/SOP/073	NA	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, $\mu\text{g}/\text{m}^3$ - Micrograms per cubic meter, mg/m^3 -Milligrams per cubic meter, ng/m^3 -Nanograms per cubic meter.

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

End of Report


Authorized SignatoryD. ANUSUYA
Deputy Quality Manager

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TEST REPORT

Page : 1 of 1

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

Report No. : HECSL/AA/4/080923
Report Date : 14/09/2023

Sample Description : Ambient Air Quality
Sampling Location : Amarambedu
Sample Drawn By : Hubert Enviro Care Systems (p) Ltd
Sampling/received Date : 07/09/2023 -08/09/2023
Analysis Commenced On : 08/09/2023

Completed On :14/09/2023

S.No.	Parameters	Units	Results Obtained	Test Method	NAAQ Standards : 2009	
1	Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	8.25	CPCB guide lines Volume 1: 2012	80 (24 hours)	50 (Annual)
2	Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	19.66	IS 5182 (Part - 6) : 2006	80 (24 hours)	40 (Annual)
3	Particulate Matter Size Less than 10 μm	$\mu\text{g}/\text{m}^3$	47.08	IS 5182 (Part - 23) : 2006	100 (24 hours)	60 (Annual)
4	Particulate Matter Size Less than 2.5 μm	$\mu\text{g}/\text{m}^3$	20.65	IS 5182 (Part - 24) : 2019	60 (24 hours)	40 (Annual)
5	Carbon Monoxide	mg/m^3	BLQ(LOQ 0.05)	IS 5182 (Part - 10) : 1999	4 (1 hours)	2 (8 hours)
6	Lead	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 0.05)	IS 5182 (Part - 22) : 2004	1 (24 hours)	0.5 (Annual)
7	Ozone	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 10)	IS 5182 (Part - 9) : 1974	180 (1 hours)	100 (8 hours)
8	Ammonia	$\mu\text{g}/\text{m}^3$	6.33	IS 5182 (Part - 25) : 2018	400 (24 hours)	100 (Annual)
9	Benzene	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 1)	IS 5182 (Part - 11) : 2006	5 (Annual)	5 (Annual)
10	Benzo(a)pyrene	ng/m^3	BLQ(LOQ 1)	IS 5182 (Part - 12) : 2004	1 (Annual)	1 (Annual)
11	Arsenic	ng/m^3	BLQ(LOQ 2)	HECS/AA/SOP/019 : 2016	6 (Annual)	6 (Annual)
12	Nickel	ng/m^3	BLQ(LOQ 10)	HECS/AA/SOP/009 : 2016	20 (Annual)	20 (Annual)
13	Volatile Organic Compounds	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 0.05)	HECS/INS/SOP/073	NA	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, $\mu\text{g}/\text{m}^3$ - Micrograms per cubic meter, mg/m^3 -Milligrams per cubic meter, ng/m^3 -Nanograms per cubic meter.

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

End of Report



Authorized Signatory

D. ANUSKA
Deputy Quality Manager

TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT

Report No. : HECSL/AA/005/080923

Report Date : 14/09/2023

Address of the Client : Pillaipakkam

Sample Description : Ambient Air Quality

Sampling Location : Vangadu

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 07/09/2023 -08/09/2023

Analysis Commenced On : 08/09/2023

Completed On :14/09/2023

S.No.	Parameters	Units	Results Obtained	Test Method	NAAQ Standards : 2009	
1	Sulphur Dioxide	$\mu\text{g}/\text{m}^3$	9.66	CPCB guide lines Volume 1: 2012	80 (24 hours)	50 (Annual)
2	Nitrogen Dioxide	$\mu\text{g}/\text{m}^3$	20.75	IS 5182 (Part - 6) : 2006	80 (24 hours)	40 (Annual)
3	Particulate Matter Size Less than 10 μm	$\mu\text{g}/\text{m}^3$	47.66	IS 5182 (Part - 23) : 2006	100 (24 hours)	60 (Annual)
4	Particulate Matter Size Less than 2.5 μm	$\mu\text{g}/\text{m}^3$	24.39	IS 5182 (Part - 24) : 2019	60 (24 hours)	40 (Annual)
5	Carbon Monoxide	mg/m^3	BLQ(LOQ 0.05)	IS 5182 (Part - 10) : 1999	4 (1 hours)	2 (8 hours)
6	Lead	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 0.05)	IS 5182 (Part - 22) : 2004	1 (24 hours)	0.5 (Annual)
7	Ozone	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 10)	IS 5182 (Part - 9) : 1974	180 (1 hours)	100 (8 hours)
8	Ammonia	$\mu\text{g}/\text{m}^3$	5.55	IS 5182 (Part - 25) : 2018	400 (24 hours)	100 (Annual)
9	Benzene	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 1)	IS 5182 (Part - 11) : 2006	5 (Annual)	5 (Annual)
10	Benzo(a)pyrene	ng/m^3	BLQ(LOQ 1)	IS 5182 (Part - 12) : 2004	1 (Annual)	1 (Annual)
11	Arsenic	ng/m^3	BLQ(LOQ 2)	HECS/AA/SOP/019 : 2016	6 (Annual)	6 (Annual)
12	Nickel	ng/m^3	BLQ(LOQ 10)	HECS/AA/SOP/009 : 2016	20 (Annual)	20 (Annual)
13	Volatile Organic Compounds	$\mu\text{g}/\text{m}^3$	BLQ(LOQ 0.05)	HECS/INS/SOP/073	NA	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, $\mu\text{g}/\text{m}^3$ - Micrograms per cubic meter, mg/m^3 -Milligrams per cubic meter, ng/m^3 -Nanograms per cubic meter.

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

End of Report



Authorized Signatory

D. ANAND
Deputy Quality Manager

TEST REPORT

Page : 1 of 2

Name of the Client : M/s. SIPCOT

Report No. : HECSL/WT/017/080923

Address of the Client : Pillaipakkam

Report Date : 14/09/2023

Sample Description : WATER

Sample Mark : Project Area - Ground Water

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 05/09/2023 -08/09/2023

Analysis Commenced On : 08/09/2023

Completed On : 14/09/2023

S.No.	Parameters	Units	Results	Test Method	IS:10500-2012	
					Acceptable Limits	Permissible Limits
1	pH (at 25 °C)	-	7.73	IS 3025 (Part - 11):1983	6.5 - 8.5	No relaxation
2	Total Alkalinity as CaCO ₃	mg/l	50.0	IS 3025 (Part - 23):1986	200	600
3	Electrical conductivity	µS/cm	218.0	IS 3025 (Part - 14):1983	NA	NA
4	Colour	Hazen Unit	BLQ(LOQ:1.0)	IS 3025(Part - 4):1983	5	15
5	Turbidity	NTU	BLQ(LOQ:1.0)	IS 3025(Part - 10):1984	1	5
6	Total Hardness as CaCO ₃	mg/l	73.0	IS 3025 (Part - 21):1983	200	600
7	Calcium as Ca	mg/l	16.43	IS 3025 (Part - 40):1991	75	200
8	Chloride as Cl	mg/l	20.29	4500 Cl -- B APHA 23rd Edn: 2017	250	1000
9	Magnesium as Mg	mg/l	7.78	IS 3025 (Part - 46):1994	30	100
10	Total Dissolved Solids	mg/l	122.0	IS 3025(Part -16):1984	500	2000
11	Sulphate as SO ₄	mg/l	7.15	IS 3025(Part - 24):1986	200	400
12	Fluoride	mg/l	BLQ(LOQ:0.2)	IS 3025 (Part - 60):1986	1.0	1.5
13	Nitrate as NO ₃	mg/l	3.58	IS 3025 (Part 34): 1988	45	No Relaxation
14	Iron as Fe	mg/l	BLQ(LOQ:0.02)	IS 3025 (Part - 53):2003	1.0	No Relaxation
15	Boron as B	mg/l	BLQ(LOQ:0.1)	IS:3025 (Part - 57):2005	0.5	1.0
16	Zinc as Zn	mg/l	BLQ(LOQ 0.1)	USEPA Method 200.8:1994	5	15
17	Copper as Cu	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8:1994	0.05	1.5
18	Manganese as Mn	mg/l	BLQ(LOQ:0.05)	USEPA Method 200.8:1994	0.1	0.3
19	Cadmium as Cd	mg/l	BLQ(LOQ 0.001)	USEPA Method 200.8:1994	0.003	No Relaxation
20	Lead as Pb	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01	No Relaxation
21	Selenium as Se	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01	No Relaxation



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Authorized Signatory
D. ANUSUYA
 Deputy Quality Manager

TEST REPORT

Page : 2 of 2

Name of the Client : M/s. SIPCOT

Report No. : HECSL/WT/017/080923

Address of the Client : Pillaipakkam

Report Date : 14/09/2023

Sample Description : WATER

Sample Mark : Project Area - Ground Water

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 05/09/2023 -08/09/2023

Analysis Commenced On : 08/09/2023

Completed On : 14/09/2023

S.No.	Parameters	Units	Results	Test Method	IS:10500-2012	
					Acceptable Limits	Permissible Limits
22	Arsenic as As	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01	0.05
23	Mercury as Hg	mg/l	BLQ(LOQ 0.0005)	USEPA Method 200.8:1994	0.001	No Relaxation
24	Sodium as Na	mg/l	8.0	IS3025 (Part - 45):1993	NA	NA
25	Potassium as K	mg/l	1.0	IS3025 (Part - 45):1993	NA	NA
26	Phosphate as PO4	mg/l	BLQ(LOQ:0.02)	IS 3025 (Part 31):1988	NA	NA
27	Total suspended solid	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 17):1984	NA	NA
28	Nickel	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8:1994	0.02	No Relaxation
29	Cyanide	mg/l	BLQ(LOQ:0.01)	IS 3025 (Part-27):1986	0.05	No Relaxation
30	Total Chromium	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8 : 1994	0.05	No Relaxation
31	BOD,3 days @27°C as O2	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 44):1993	NA	NA
32	Chemical oxygen demand as	mg/l	BLQ(LOQ:4.0)	IS 3025 (Part - 58):2006	NA	NA
33	Dissolved oxygen	mg/l	6.2	IS 3025 (Part - 38):1989	NA	NA
34	Total Phosphorous as P	mg/l	BLQ(LOQ:0.02)	IS 3025 (Pt 31) : 1988	NA	NA
35	Carbonate	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 23):1986	NA	NA
36	Bi Carbonate	mg/l	61.0	IS 3025 (Part - 23):1986	NA	NA
37	Phenolic compounds as	mg/l	BLQ(LOQ:0.001)	APHA 23rd edition (Method 5530C): 2017	0.001	0.002
38	Anionic Detergents as MBAS	mg/l	BLQ(LOQ:0.05)	Annex K of IS 13428-2005	0.2	1
39	Percent Sodium as Na	%	18.87	IS 3025(Part-45) 1993	NA	NA
40	Barium as Ba	mg/l	BLQ(LOQ0.01)	USEPA Method 200.8:1994	0.7	No Relaxation
41	Chromium as Cr6+	mg/l	BLQ(LOQ:0.05)	IS 3025 Part 52 : 2003	NA	NA
42	Residual Sodium Carbonate	mg/l	BLQ(LOQ:1.0)	IS 11624 - 1986	NA	NA
43	Free Ammonia	mg/l	BLQ(LOQ:0.02)	IS 3025 Part (34) 1982	NA	NA
44	Sodium Absorption Ratio	-	0.41	IS 11624 - 1986	NA	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l - Milligrams per liter.

End of Report



(Signature)
Authorized Signatory
D. ANUSUVA
Deputy Quality

TEST REPORT

Page : 1 of 2

Name of the Client : M/s. SIPCOT

Report No. : HECSL/WT/018/080923

Report Date : 14/09/2023

Address of the Client : Pillaipakkam

Sample Description : WATER

Sample Mark : Anakaputhur - Ground Water

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 05/09/2023 -08/09/2023

Analysis Commenced On : 08/09/2023

Completed On : 14/09/2023

S.No.	Parameters	Units	Results	Test Method	IS:10500-2012	
					Acceptable Limits	Permissible Limits
1	pH (at 25 °C)	-	7.85	IS 3025 (Part - 11):1983	6.5 - 8.5	No relaxation
2	Total Alkalinity as CaCO ₃	mg/l	120.0	IS 3025 (Part - 23):1986	200	600
3	Electrical conductivity	µS/cm	1167.0	IS 3025 (Part - 14):1983	NA	NA
4	Colour	Hazen Unit	BLQ(LOQ:1.0)	IS 3025(Part - 4):1983	5	15
5	Turbidity	NTU	0.8	IS 3025(Part - 10):1984	1	5
6	Total Hardness as CaCO ₃	mg/l	226.0	IS 3025 (Part - 21):1983	200	600
7	Calcium as Ca	mg/l	51.30	IS 3025 (Part - 40):1991	75	200
8	Chloride as Cl	mg/l	268.72	4500 Cl --- B APHA 23rd Edn: 2017	250	1000
9	Magnesium as Mg	mg/l	23.81	IS 3025 (Part - 46) 1994	30	100
10	Total Dissolved Solids	mg/l	654.0	IS 3025(Part -16):1984	500	2000
11	Sulphate as SO ₄	mg/l	56.14	IS 3025(Part - 24):1986	200	400
12	Fluoride	mg/l	0.38	IS 3025 (Part - 60):1986	1.0	1.5
13	Nitrate as NO ₃	mg/l	7.56	IS 3025 (Part 34): 1988	45	No Relaxation
14	Iron as Fe	mg/l	0.057	IS 3025 (Part - 53):2003	1.0	No Relaxation
15	Boron as B	mg/l	BLQ(LOQ:0.1)	IS:3025 (Part - 57):2005	0.5	1.0
16	Zinc as Zn	mg/l	BLQ(LOQ 0.1)	USEPA Method 200.8:1994	5	15
17	Copper as Cu	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8:1994	0.05	1.5
18	Manganese as Mn	mg/l	BLQ(LOQ:0.05)	USEPA Method 200.8:1994	0.1	0.3
19	Cadmium as Cd	mg/l	BLQ(LOQ 0.001)	USEPA Method 200.8:1994	0.003	No Relaxation
20	Lead as Pb	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01	No Relaxation
21	Selenium as Se	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01	No Relaxation



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Authorized Signatory

D. ANUSUIYA

TEST REPORT

Page : 2 of 2

Name of the Client : M/s. SIPCOT

Report No. : HECSL/WT/018/080923

Address of the Client : Pillaipakkam

Report Date : 14/09/2023

Sample Description : WATER

Sample Mark : Anakaputhur - Ground Water

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 05/09/2023 -08/09/2023

Analysis Commenced On : 08/09/2023

Completed On : 14/09/2023

S.No.	Parameters	Units	Results	Test Method	IS:10500-2012	
					Acceptable Limits	Permissible Limits
22	Arsenic as As	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01	0.05
23	Mercury as Hg	mg/l	BLQ(LOQ 0.0005)	USEPA Method 200.8:1994	0.001	No Relaxation
24	Sodium as Na	mg/l	135.0	IS3025 (Part - 45):1993	NA	NA
25	Potassium as K	mg/l	11.0	IS3025 (Part - 45):1993	NA	NA
26	Phosphate as PO ₄	mg/l	0.081	IS 3025 (Part 31):1988	NA	NA
27	Total suspended solid	mg/l	2.0	IS 3025 (Part - 17):1984	NA	NA
28	Nickel	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8:1994	0.02	No Relaxation
29	Cyanide	mg/l	BLQ(LOQ:0.01)	IS 3025 (Part-27):1986	0.05	No Relaxation
30	Total Chromium	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8 : 1994	0.05	No Relaxation
31	BOD,3 days @27°C as O ₂	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 44):1993	NA	NA
32	Chemical oxygen demand as	mg/l	BLQ(LOQ:4.0)	IS 3025 (Part - 58):2006	NA	NA
33	Dissolved oxygen	mg/l	6.4	IS 3025 (Part - 38):1989	NA	NA
34	Total Phosphorous as P	mg/l	0.029	IS 3025 (Pt 31) : 1988	NA	NA
35	Carbonate	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 23):1986	NA	NA
36	Bi Carbonate	mg/l	146.4	IS 3025 (Part - 23):1986	NA	NA
37	Phenolic compounds as	mg/l	BLQ(LOQ:0.001)	APHA 23rd edition (Method 5530C): 2017	0.001	0.002
38	Anionic Detergents as MBAS	mg/l	BLQ(LOQ:0.05)	Annex K of IS 13428-2005	0.2	1
39	Percent Sodium as Na	%	54.85	IS 3025(Part -45) 1993	NA	NA
40	Barium as Ba	mg/l	BLQ(LOQ0.01)	USEPA Method 200.8:1994	0.7	No Relaxation
41	Chromium as Cr ⁶⁺	mg/l	BLQ(LOQ:0.05)	IS 3025 Part 52 : 2003	NA	NA
42	Residual Sodium Carbonate	mg/l	BLQ(LOQ:1.0)	IS 11624 - 1986	NA	NA
43	Free Ammonia	mg/l	BLQ(LOQ:0.02)	IS 3025 Part (34) 1982	NA	NA
44	Sodium Absorption Ratio	-	3.89	IS 11624 - 1986	NA	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l - Milligrams per liter***End of Report***



(Signature)
Authorized Signatory

D. ANUSUJA
Deputy Quality Manager

TEST REPORT

Page : 1 of 2

Name of the Client : M/s. SIPCOT

Report No. : HECSL/WT/019/080923

Address of the Client : Pillaipakkam

Report Date : 14/09/2023

Sample Description : WATER

Sample Mark : Karunagaracheri - Ground Water

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 05/09/2023 -08/09/2023

Analysis Commenced On : 08/09/2023

Completed On : 14/09/2023

S.No.	Parameters	Units	Results	Test Method	IS:10500-2012	
					Acceptable Limits	Permissible Limits
1	pH (at 25 °C)	-	7.89	IS 3025 (Part - 11):1983	6.5 - 8.5	No relaxation
2	Total Alkalinity as CaCO ₃	mg/l	150.0	IS 3025 (Part - 23):1986	200	600
3	Electrical conductivity	µS/cm	671.0	IS 3025 (Part - 14):1983	NA	NA
4	Colour	Hazen Unit	BLQ(LOQ:1.0)	IS 3025(Part - 4):1983	5	15
5	Turbidity	NTU	BLQ(LOQ:0.1)	IS 3025(Part - 10):1984	1	5
6	Total Hardness as CaCO ₃	mg/l	226.0	IS 3025 (Part - 21):1983	200	600
7	Calcium as Ca	mg/l	48.50	IS 3025 (Part - 40):1991	75	200
8	Chloride as Cl	mg/l	76.71	4500 Cl --- B APHA 23rd Edn: 2017	250	1000
9	Magnesium as Mg	mg/l	26.49	IS 3025 (Part - 46):1994	30	100
10	Total Dissolved Solids	mg/l	376.0	IS 3025(Part -16):1984	500	2000
11	Sulphate as SO ₄	mg/l	64.15	IS 3025(Part - 24):1986	200	400
12	Fluoride	mg/l	0.35	IS 3025 (Part - 60):1986	1.0	1.5
13	Nitrate as NO ₃	mg/l	2.13	IS 3025 (Part 34): 1988	45	No Relaxation
14	Iron as Fe	mg/l	0.035	IS 3025 (Part - 53):2003	1.0	No Relaxation
15	Boron as B	mg/l	BLQ(LOQ:0.1)	IS:3025 (Part - 57):2005	0.5	1.0
16	Zinc as Zn	mg/l	BLQ(LOQ 0.1)	USEPA Method 200.8:1994	5	15
17	Copper as Cu	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8:1994	0.05	1.5
18	Manganese as Mn	mg/l	BLQ(LOQ:0.05)	USEPA Method 200.8:1994	0.1	0.3
19	Cadmium as Cd	mg/l	BLQ(LOQ 0.001)	USEPA Method 200.8:1994	0.003	No Relaxation
20	Lead as Pb	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01	No Relaxation
21	Selenium as Se	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01	No Relaxation



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Authorized Signatory

D. ANUSUYA

Deputy Quality Asst.

TEST REPORT

Page : 2 of 2

Name of the Client : M/s. SIPCOT

Report No. : HECSL/WT/019/080923

Address of the Client : Pillaipakkam

Report Date : 14/09/2023

Sample Description : WATER

Sample Mark : Karunagaracheri - Ground Water

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 05/09/2023 -08/09/2023

Analysis Commenced On : 08/09/2023

Completed On : 14/09/2023

S.No.	Parameters	Units	Results	Test Method	IS:10500-2012	
					Acceptable Limits	Permissible Limits
22	Arsenic as As	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01	0.05
23	Mercury as Hg	mg/l	BLQ(LOQ 0.0005)	USEPA Method 200.8:1994	0.001	No Relaxation
24	Sodium as Na	mg/l	37.0	IS3025 (Part - 45):1993	NA	NA
25	Potassium as K	mg/l	3.0	IS3025 (Part - 45):1993	NA	NA
26	Phosphate as PO ₄	mg/l	0.067	IS 3025 (Part 31):1988	NA	NA
27	Total suspended solid	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 17):1984	NA	NA
28	Nickel	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8:1994	0.02	No Relaxation
29	Cyanide	mg/l	BLQ(LOQ:0.01)	IS 3025 (Part-27):1986	0.05	No Relaxation
30	Total Chromium	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8 : 1994	0.05	No Relaxation
31	BOD,3 days @27°C as O ₂	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 44):1993	NA	NA
32	Chemical oxygen demand as	mg/l	BLQ(LOQ:4.0)	IS 3025 (Part - 58):2006	NA	NA
33	Dissolved oxygen	mg/l	6.1	IS 3025 (Part - 38):1989	NA	NA
34	Total Phosphorous as P	mg/l	BLQ(LOQ:0.02)	IS 3025 (Pt 31) : 1988	NA	NA
35	Carbonate	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 23):1986	NA	NA
36	Bi Carbonate	mg/l	183.0	IS 3025 (Part - 23):1986	NA	NA
37	Phenolic compounds as	mg/l	BLQ(LOQ:0.001)	APHA 23rd edition (Method 5530C): 2017	0.001	0.002
38	Anionic Detergents as MBAS	mg/l	BLQ(LOQ:0.05)	Annex K of IS 13428-2005	0.2	1
39	Percent Sodium as Na	%	25.46	IS 3025(Part -45) 1993	NA	NA
40	Barium as Ba	mg/l	BLQ(LOQ0.01)	USEPA Method 200.8:1994	0.7	No Relaxation
41	Chromium as Cr ⁶⁺	mg/l	BLQ(LOQ:0.05)	IS 3025 Part 52 : 2003	NA	NA
42	Residual Sodium Carbonate	mg/l	BLQ(LOQ:1.0)	IS 11624 - 1986	NA	NA
43	Free Ammonia	mg/l	BLQ(LOQ:0.02)	IS 3025 Part (34) 1982	NA	NA
44	Sodium Absorption Ratio	-	1.06	IS 11624 - 1986	NA	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l - Milligrams per liter.***End of Report***



[Signature]
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D. ANO...
Deputy Quality...

TEST REPORT

Page : 1 of 2

Name of the Client : M/s. SIPCOT

Report No. : HECSL/WT/020/080923

Address of the Client : Pillaipakkam

Report Date : 14/09/2023

Sample Description : WATER

Sample Mark : Lake Near Vangadu-Surface Water

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 07/09/2023 -08/09/2023

Analysis Commenced On : 08/09/2023

Completed On :14/09/2023

S.No.	Parameters	Units	Results	Test Method	Surface water Standard (IS 2296Class-A)
1	pH (at 25 °C)	-	8.17	IS 3025 (Part - 11):1983	6.5-8.5
2	Total Alkalinity as CaCO ₃	mg/l	50.0	IS 3025 (Part - 23):1986	NA
3	Electrical conductivity	µS/cm	286.0	IS 3025 (Part - 14):1983	NA
4	Colour	Hazen Unit	BLQ(LOQ:1.0)	IS 3025(Part - 4):1983	10
5	Turbidity	NTU	1.2	IS 3025(Part - 10):1984	1
6	Total Hardness as CaCO ₃	mg/l	76.0	IS 3025 (Part - 21):1983	200
7	Calcium as Ca	mg/l	15.23	IS 3025 (Part - 40):1991	NA
8	Chloride as Cl	mg/l	39.10	4500 Cl --- B APHA 23rd Edn: 2017	250
9	Magnesium as Mg	mg/l	9.23	IS 3025 (Part - 46) 1994	NA
10	Total Dissolved Solids	mg/l	160.0	IS 3025(Part -16):1984	500
11	Sulphate as SO ₄	mg/l	15.63	IS 3025(Part - 24):1986	400
12	Fluoride	mg/l	BLQ(LOQ:0.2)	IS 3025 (Part - 60):1986	1.5
13	Nitrate as NO ₃	mg/l	2.78	IS 3025 (Part 34): 1988	20
14	Iron as Fe	mg/l	0.12	IS 3025 (Part - 53):2003	0.3
15	Boron as B	mg/l	BLQ(LOQ:0.1)	IS:3025 (Part - 57):2005	NA
16	Zinc as Zn	mg/l	BLQ(LOQ 0.1)	USEPA Method 200.8:1994	15
17	Copper as Cu	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8:1994	1.5
18	Manganese as Mn	mg/l	BLQ(LOQ:0.05)	USEPA Method 200.8:1994	0.5
19	Cadmium as Cd	mg/l	BLQ(LOQ 0.001)	USEPA Method 200.8:1994	0.001
20	Lead as Pb	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.1
21	Selenium as Se	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01
22	Arsenic as As	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.05
23	Mercury as Hg	mg/l	BLQ(LOQ 0.0005)	USEPA Method 200.8:1994	0.001



Authorized Signatory

D. ANUSUYA

Deputy Quality Manager

TEST REPORT

Page : 2 of 2

Name of the Client : M/s. SIPCOT

Report No. : HECSL/WT/020/080923

Address of the Client : Pillaipakkam

Report Date : 14/09/2023

Sample Description : WATER

Sample Mark : Lake Near Vangadu-Surface Water

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 07/09/2023 -15/03/2023

Analysis Commenced On : 15/03/2023

Completed On :14/09/2023

S.No.	Parameters	Units	Results	Test Method	Surface water Standard (IS 2296Class-A)
24	Sodium as Na	mg/l	18.0	IS3025 (Part - 45):1993	NA
25	Potassium as K	mg/l	2.0	IS3025 (Part - 45):1993	NA
26	Phosphate as PO4	mg/l	BLQ(LOQ:0.02)	IS 3025 (Part 31):1988	NA
27	Total suspended solid	mg/l	2.0	IS 3025 (Part - 17):1984	NA
28	Nickel	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8:1994	NA
29	Cyanide	mg/l	BLQ(LOQ:0.01)	IS 3025 (Part-27):1986	0.05
30	Total Chromium	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8 : 1994	NA
31	BOD,3 days @27°C as O2	mg/l	2.0	IS 3025 (Part - 44):1993	NA
32	Chemical oxygen demand as	mg/l	16.0	IS 3025 (Part - 58):2006	NA
33	Dissolved oxygen	mg/l	6.2	IS 3025 (Part - 38):1989	6
34	Total Phosphorous as P	mg/l	BLQ(LOQ:0.02)	IS 3025 (Pt 31) : 1988	NA
35	Carbonate	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 23):1986	NA
36	Bi Carbonate	mg/l	61	IS 3025 (Part - 23):1986	NA
37	Phenolic compounds as	mg/l	BLQ(LOQ:0.001)	APHA 23rd edition (Method 5530C): 2017	NA
38	Anionic Detergents as	mg/l	BLQ(LOQ:0.05)	Annex K of IS 13428-2005	NA
39	Percent Sodium as Na	%	33.09	IS 3025(Part -45) 1993	NA
40	Barium as Ba	mg/l	BLQ(LOQ0.01)	USEPA Method 200.8:1994	1
41	Residual Sodium Carbonate	mg/l	BLQ(LOQ:1.0)	IS 11624 - 1986	NA
42	Free Ammonia	mg/l	BLQ(LOQ:0.02)	IS 3025 Part (34) 1982	NA
43	Sodium Absorption Ratio	-	0.89	IS 11624 - 1986	NA
44	Chromium as Cr6+	mg/l	BLQ(LOQ:0.05)	IS 3025 Part 52 : 2003	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l - Milligrams per liter.

End of Report



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D. ANUSUYA

Deputy Quality Manager

TEST REPORT

Page : 1 of 2

Name of the Client : M/s. SIPCOT

Report No. : HECSL/WT/021/080923

Address of the Client : Pillaipakkam

Report Date : 14/09/2023

Sample Description : WATER

Sample Mark : Pond Near Anakaputhur-Surface Water

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 07/09/2023 - 08/09/2023

Analysis Commenced On : 08/09/2023

Completed On : 14/09/2023

S.No.	Parameters	Units	Results	Test Method	Surface water Standard (IS 2296 Class-A)
1	pH (at 25 °C)	-	7.65	IS 3025 (Part - 11):1983	6.5-8.5
2	Total Alkalinity as CaCO ₃	mg/l	100.0	IS 3025 (Part - 23):1986	NA
3	Electrical conductivity	µS/cm	684.0	IS 3025 (Part - 14):1983	NA
4	Colour	Hazen Unit	BLQ(LOQ:1.0)	IS 3025(Part - 4):1983	10
5	Turbidity	NTU	0.7	IS 3025(Part - 10):1984	1
6	Total Hardness as CaCO ₃	mg/l	170.0	IS 3025 (Part - 21):1983	200
7	Calcium as Ca	mg/l	38.08	IS 3025 (Part - 40):1991	NA
8	Chloride as Cl	mg/l	132.63	4500 Cl -- B APHA 23rd Edn: 2017	250
9	Magnesium as Mg	mg/l	18.23	IS 3025 (Part - 46) 1994	NA
10	Total Dissolved Solids	mg/l	383.0	IS 3025(Part -16):1984	500
11	Sulphate as SO ₄	mg/l	37.12	IS 3025(Part - 24):1986	400
12	Fluoride	mg/l	0.41	IS 3025 (Part - 60):1986	1.5
13	Nitrate as NO ₃	mg/l	2.13	IS 3025 (Part 34): 1988	20
14	Iron as Fe	mg/l	0.068	IS 3025 (Part - 53):2003	0.3
15	Boron as B	mg/l	BLQ(LOQ:0.1)	IS:3025 (Part - 57):2005	NA
16	Zinc as Zn	mg/l	BLQ(LOQ 0.1)	USEPA Method 200.8:1994	15
17	Copper as Cu	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8:1994	1.5
18	Manganese as Mn	mg/l	BLQ(LOQ:0.05)	USEPA Method 200.8:1994	0.5
19	Cadmium as Cd	mg/l	BLQ(LOQ 0.001)	USEPA Method 200.8:1994	0.001
20	Lead as Pb	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.1
21	Selenium as Se	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.01
22	Arsenic as As	mg/l	BLQ(LOQ 0.005)	USEPA Method 200.8:1994	0.05
23	Mercury as Hg	mg/l	BLQ(LOQ 0.0005)	USEPA Method 200.8:1994	0.001



Authorized Signatory

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Deputy Quality Manager

Hubert Enviro Care Systems (P) Ltd.

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Laboratory Services Division

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

TEST REPORT

Page : 2 of 2

Name of the Client : M/s. SIPCOT

Report No. : HECSL/WT/021/080923

Address of the Client : Pillaipakkam

Report Date : 14/09/2023

Sample Description : WATER

Sample Mark : Pond Near Anakaputhur-Surface Water

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 07/09/2023 - 03/09/2023

Analysis Commenced On : 08/09/2023

Completed On : 14/09/2023

S.No.	Parameters	Units	Results	Test Method	Surface water Standard (IS 2296 Class-A)
24	Sodium as Na	mg/l	63.0	IS3025 (Part - 45):1993	NA
25	Potassium as K	mg/l	4.0	IS3025 (Part - 45):1993	NA
26	Phosphate as PO4	mg/l	BLQ(LOQ:0.02)	IS 3025 (Part 31):1988	NA
27	Total suspended solid	mg/l	2.0	IS 3025 (Part - 17):1984	NA
28	Nickel	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8:1994	NA
29	Cyanide	mg/l	BLQ(LOQ:0.01)	IS 3025 (Part-27):1986	0.05
30	Total Chromium	mg/l	BLQ(LOQ 0.01)	USEPA Method 200.8 : 1994	NA
31	BOD,3 days @27°C as O2	mg/l	1.0	IS 3025 (Part - 44):1993	NA
32	Chemical oxygen demand as	mg/l	12.0	IS 3025 (Part - 58):2006	NA
33	Dissolved oxygen	mg/l	5.9	IS 3025 (Part - 38):1989	6
34	Total Phosphorous as P	mg/l	BLQ(LOQ:0.02)	IS 3025 (Pt 31) : 1988	NA
35	Carbonate	mg/l	BLQ(LOQ:1.0)	IS 3025 (Part - 23):1986	NA
36	Bi Carbonate	mg/l	122.0	IS 3025 (Part - 23):1986	NA
37	Phenolic compounds as	mg/l	BLQ(LOQ:0.001)	APHA 23rd edition (Method 5530C): 2017	NA
38	Anionic Detergents as	mg/l	BLQ(LOQ:0.05)	Annex K of IS 13428-2005	NA
39	Percent Sodium as Na	%	43.73	IS 3025(Part -45) 1993	NA
40	Barium as Ba	mg/l	BLQ(LOQ0.01)	USEPA Method 200.8:1994	1
41	Residual Sodium Carbonate	mg/l	BLQ(LOQ:1.0)	IS 11624 - 1986	NA
42	Free Ammonia	mg/l	BLQ(LOQ:0.02)	IS 3025 Part (34) 1982	NA
43	Sodium Absorption Ratio	-	2.09	IS 11624 - 1986	NA
44	Chromium as Cr6+	mg/l	BLQ(LOQ:0.05)	IS 3025 Part 52 : 2003	NA

Note:- BLQ - Below the Limit of Quantification, LOQ- Limit of Quantification, mg/l - Milligrams per liter.

End of Report



Authorized Signatory

D. ANUSU

Deputy Quality Manager

1. The report in full or part shall not be used for any promotional or publicity purpose without written consent by HECS organization 2. Samples are not drawn by HECS unless or otherwise mentioned 3. Unless specifically requested by customer the test items will not be retained more than 15 days from the date of issue of test report. 4. Under no circumstances lab accepts any liability or loss / damage caused by use or misuse of test report after invoicing or issue of test report. 5. The test results relate only to the test items. 6. HECS will not be responsible for the information shared by clients related to samples tested.

HECS/Q/FMT/50

TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT

Report No. : HECSL/SD/1/080923

Address of the Client : Pillaipakkam

Report Date : 14/09/2023

Sample Description : SOIL

Sample Mark : Project Area

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 05/09/2023 -08/09/2023

Analysis Commenced On : 08/09/2023

Completed On : 14/09/2023

S.No.	Parameters	Units	Results	Test Method
1	Soil Texture	-	Clay Loam	ASTM D421/422
2	Organic Carbon	%	1.6	ASTM D421/422
3	Soil Texture i)Sand	%	26.2	ASTM D421/422
4	Soil Texture ii)Silt	%	34.3	ASTM D421/422
5	Soil Texture iii)Clay	%	39.5	ASTM D421/422
6	pH (at 25°C) @ 10% Solution	-	8.12	IS:2720 (Part-26):1987
7	Electrical Conductivity (at 25°C)	µS/cm	331.4	IS:14767:2000
8	Cation exchange capacity	meq/100g	5.6	IS 2720 (Part XXIV)Reaff:2010-1976
9	Organic Matter	%	1.52	IS:2720 (Part-22): 1972)
10	Nitrogen	mg/kg	208.7	IS 14684:1999 RA 2008
11	Phosphorus	mg/kg	21.3	IS 10158:1982
12	Potassium	mg/kg	17.7	US EPA Method 3050B
13	Boron	mg/kg	BLQ(LOQ 0.1)	US EPA Method 200.7
14	Cadmium	mg/kg	BLQ(LOQ 0.1)	US EPA 200.8 Method
15	Copper as Cu	mg/kg	5.32	US EPA 200.8 Method
16	Iron	mg/kg	3.63	US EPA 200.8 Method
17	Manganese	mg/kg	127.43	US EPA 200.8 Method
18	Zinc	mg/kg	26.84	US EPA 200.8 Method
19	Colour	-	Brown	IS 3025(Part 4)
20	Infiltration Rate	cm/hr	4.32	ASTM D6391-11
21	Bulk density	gm/cc	1.64	ASTM D6683-14
22	Moisture Content	%	4.33	IS 2720 part 2 Reaff:2000
23	Water holding capacity	%	26.76	IS 14765
24	Calcium as Ca	mg/kg	154.11	EPA 3050 B/EPA 7140
25	Magnesium as Mg	mg/kg	46.63	EPA 3050 B/EPA 7450
26	Chromium	mg/kg	31.17	US EPA 200.8 Method

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

End of Report



Authorized Signatory

D. ANUSUYA
Deputy Quality Manager

TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT

Report No. : HECSL/SD/2/080923

Address of the Client : Pillaipakkam

Report Date : 14/09/2023

Sample Description : SOIL

Sample Mark : Anakaputhur

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 05/09/2023 -08/09/2023

Analysis Commenced On : 08/09/2023

Completed On : 14/09/2023

S.No.	Parameters	Units	Results	Test Method
1	Soil Texture	-	Loam	ASTM D421/422
2	Organic Carbon	%	1.1	ASTM D421/422
3	Soil Texture i)Sand	%	27.3	ASTM D421/422
4	Soil Texture ii)Silt	%	48.8	ASTM D421/422
5	Soil Texture iii)Clay	%	23.9	ASTM D421/422
6	pH (at 25°C) @ 10% Solution	-	7.47	IS:2720 (Part-26):1987
7	Electrical Conductivity (at 25°C)	µS/cm	433.14	IS:14767:2000
8	Cation exchange capacity	meq/100g	4.87	IS 2720 (Part XXIV)Reaff:2010-1976
9	Organic Matter	%	2.03	IS:2720 (Part-22): 1972)
10	Nitrogen	mg/kg	192.76	IS 14684:1999 RA 2008
11	Phosphorus	mg/kg	6.33	IS 10158:1982
12	Potassium	mg/kg	29.32	US EPA Method 3050B
13	Boron	mg/kg	BLQ(LOQ 0.1)	US EPA Method 200.7
14	Cadmium	mg/kg	BLQ(LOQ 0.1)	US EPA 200.8 Method
15	Copper as Cu	mg/kg	7.42	US EPA 200.8 Method
16	Iron	mg/kg	6.11	US EPA 200.8 Method
17	Manganese	mg/kg	56.12	US EPA 200.8 Method
18	Zinc	mg/kg	17.33	US EPA 200.8 Method
19	Colour	-	Black	IS 3025(Part 4)
20	Infiltration Rate	cm/hr	5.77	ASTM D6391-11
21	Bulk density	gm/cc	2.41	ASTM D6683-14
22	Moisture Content	%	5.72	IS 2720 part 2 Reaff:2000
23	Water holding capacity	%	12.64	IS 14765
24	Calcium as Ca	mg/kg	134.65	EPA 3050 B/EPA 7140
25	Magnesium as Mg	mg/kg	46.16	EPA 3050 B/EPA 7450
26	Chromium	mg/kg	21.62	US EPA 200.8 Method

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

End of Report



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D. ANUSUYA
Deputy Quality Manager

TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT

Report No. : HECSL/SD/3/080923

Address of the Client : Pillaipakkam

Report Date : 14/09/2023

Sample Description : SOIL

Sample Mark : Karunagaracheri

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 05/09/2023 -08/09/2023

Analysis Commenced On : 08/09/2023

Completed On : 14/09/2023

S.No.	Parameters	Units	Results	Test Method
1	Soil Texture	-	Clay loam	ASTM D421/422
2	Organic Carbon	%	0.83	ASTM D421/422
3	Soil Texture i)Sand	%	38.1	ASTM D421/422
4	Soil Texture ii)Silt	%	23.6	ASTM D421/422
5	Soil Texture iii)Clay	%	38.3	ASTM D421/422
6	pH (at 25°C) @ 10% Solution	-	7.52	IS:2720 (Part-26):1987
7	Electrical Conductivity (at 25°C)	µS/cm	437.65	IS:14767:2000
8	Cation exchange capacity	meq/100g	5.18	IS 2720 (Part XXIV)Reaff:2010-1976
9	Organic Matter	%	1.33	IS:2720 (Part-22): 1972)
10	Nitrogen	mg/kg	185.76	IS 14684:1999 RA 2008
11	Phosphorus	mg/kg	5.33	IS 10158:1982
12	Potassium	mg/kg	34.17	US EPA Method 3050B
13	Boron	mg/kg	BLQ(LOQ 0.1)	US EPA Method 200.7
14	Cadmium	mg/kg	BLQ(LOQ 0.1)	US EPA 200.8 Method
15	Copper as Cu	mg/kg	6.23	US EPA 200.8 Method
16	Iron	mg/kg	BLQ(LOQ 0.02)	US EPA 200.8 Method
17	Manganese	mg/kg	65.11	US EPA 200.8 Method
18	Zinc	mg/kg	31.21	US EPA 200.8 Method
19	Colour	-	Black	IS 3025(Part 4)
20	Infiltration Rate	cm/hr	4.65	ASTM D6391-11
21	Bulk density	gm/cc	5.32	ASTM D6683-14
22	Moisture Content	%	3.47	IS 2720 part 2 Reaff:2000
23	Water holding capacity	%	24.82	IS 14765
24	Calcium as Ca	mg/kg	103.52	EPA 3050 B/EPA 7140
25	Magnesium as Mg	mg/kg	45.34	EPA 3050 B/EPA 7450
26	Chromium	mg/kg	26.14	US EPA 200.8 Method

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

End of Report



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D. ANUSUYA
Deputy Quality Manager

TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT

Report No. : HECSL/SD/4/080923

Address of the Client : Pillaipakkam

Report Date : 14/09/2023

Sample Description : SOIL

Sample Mark : Amarambedu

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 07/09/2023 -08/09/2023


Analysis Commenced On : 08/09/2023

Completed On : 14/09/2023

S.No.	Parameters	Units	Results	Test Method
1	Soil Texture	-	Clay Loam	ASTM D421/422
2	Organic Carbon	%	1.33	ASTM D421/422
3	Soil Texture i)Sand	%	35.4	ASTM D421/422
4	Soil Texture ii)Silt	%	31.8	ASTM D421/422
5	Soil Texture iii)Clay	%	32.8	ASTM D421/422
6	pH (at 25°C) @ 10% Solution	-	7.87	IS:2720 (Part-26):1987
7	Electrical Conductivity (at 25°C)	µS/cm	421.5	IS:14767:2000
8	Cation exchange capacity	meq/100g	3.8	IS 2720 (Part XXIV)Reaff.2010-1976
9	Organic Matter	%	1.34	IS:2720 (Part-22): 1972)
10	Nitrogen	mg/kg	225.3	IS 14684:1999 RA 2008
11	Phosphorus	mg/kg	4.3	IS 10158:1982
12	Potassium	mg/kg	18.8	US EPA Method 3050B
13	Boron	mg/kg	BLQ(LOQ 0.1)	US EPA Method 200.7
14	Cadmium	mg/kg	BLQ(LOQ 0.1)	US EPA 200.8 Method
15	Copper as Cu	mg/kg	6.33	US EPA 200.8 Method
16	Iron	mg/kg	4.76	US EPA 200.8 Method
17	Manganese	mg/kg	113.32	US EPA 200.8 Method
18	Zinc	mg/kg	26.31	US EPA 200.8 Method
19	Colour	-	Black	IS 3025(Part 4)
20	Infiltration Rate	cm/hr	6.21	ASTM D6391-11
21	Bulk density	gm/cc	3.51	ASTM D6683-14
22	Moisture Content	%	4.56	IS 2720 part 2 Reaff:2000
23	Water holding capacity	%	23.83	IS 14765
24	Calcium as Ca	mg/kg	114.31	EPA 3050 B/EPA 7140
25	Magnesium as Mg	mg/kg	78.21	EPA 3050 B/EPA 7450
26	Chromium	mg/kg	24.63	US EPA 200.8 Method

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

End of Report

Authorized Signatory

D. ANUSUYA
Deputy Quality Manager

TEST REPORT

Page : 1 of 1

Name of the Client : M/s. SIPCOT

Report No. : HECSL/SD/5/080923

Address of the Client : Pillaipakkam

Report Date : 14/09/2023

Sample Description : SOIL

Sample Mark : Vangadu

Sample Drawn By : Hubert Enviro Care Systems (p) Ltd

Sampling/received Date : 07/09/2023 -08/09/2023

Analysis Commenced On : 08/09/2023

Completed On : 14/09/2023

S.No.	Parameters	Units	Results	Test Method
1	Soil Texture	-	Clay loam	ASTM D421/422
2	Organic Carbon		1.75	ASTM D421/422
3	Soil Texture i)Sand	%	37.3	ASTM D421/422
4	Soil Texture ii)Silt	%	29.3	ASTM D421/422
5	Soil Texture iii)Clay	%	33.4	ASTM D421/422
6	pH (at 25°C) @ 10% Solution	-	7.61	IS:2720 (Part-26):1987
7	Electrical Conductivity (at 25°C)	µS/cm	342.2	IS:14767:2000
8	Cation exchange capacity	meq/100g	4.6	IS 2720 (Part XXIV)Reaff:2010-1976
9	Organic Matter	%	3.11	IS:2720 (Part-22): 1972)
10	Nitrogen	mg/kg	176.5	IS 14684:1999 RA 2008
11	Phosphorus	mg/kg	17.22	IS 10158:1982
12	Potassium	mg/kg	21.31	US EPA Method 3050B
13	Boron	mg/kg	BLQ(LOQ 0.1)	US EPA Method 200.7
14	Cadmium	mg/kg	BLQ(LOQ 0.1)	US EPA 200.8 Method
15	Copper as Cu	mg/kg	3.17	US EPA 200.8 Method
16	Iron	mg/kg	4.76	US EPA 200.8 Method
17	Manganese	mg/kg	78.11	US EPA 200.8 Method
18	Zinc	mg/kg	34.27	US EPA 200.8 Method
19	Colour	-	Black	IS 3025(Part 4)
20	Infiltration Rate	cm/hr	7.42	ASTM D6391-11
21	Bulk density	gm/cc	3.44	ASTM D6683-14
22	Moisture Content	%	4.22	IS 2720 part 2 Reaff:2000
23	Water holding capacity	%	17.65	IS 14765
24	Calcium as Ca	mg/kg	132.14	EPA 3050 B/EPA 7140
25	Magnesium as Mg	mg/kg	77.67	EPA 3050 B/EPA 7450
26	Chromium	mg/kg	27.11	US EPA 200.8 Method

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

End of Report


Authorized SignatoryD. ANUSUYA
Deputy Quality Manager

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Laboratory Services Division

(Chemical & Biological Testing)
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TEST REPORT

Page : 1 of 1

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

Report No. : HECSL/AN/001-005/080923
Report Date : 14/09/2023

Sample Description : Noise Monitoring
Sample Drawn By : Hubert Enviro Care Systems (p) Ltd
Sampling/received Date : 05/09/2023 -08/09/2023

S.No	Sampling Location	Day Noise level in dB (A)	Night Noise level in dB (A)
1	Project Site	58.3	50.3
2	Anakaputhur	49.3	45.1
3	Karunagaracheri	48.8	45.6
4	Amarambedu	55.6	48.2
5	Vangadu	53.7	48.1

Noise Standards - CPCB:

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

- Note:**
- Day Time shall mean from 6.00 am to 10.00 pm.
 - Night Time shall mean from 10.00 pm to 6.00 am.

Remarks:- The noise level meets the requirement of CPCB Limits.

End of Report



Authorized Signatory

D. ANUSUYA
Deputy Quality Ma.

Annexure - 7

The screenshot displays the SIPCOT website interface. At the top, there is a navigation menu with links for HOME, ABOUT US, DASHBOARD, DOCUMENT, OFFICE ORDERS / CIRCULARS, TENDERS, GALLERY, WATER AUDIT, CONTACT US, and APPLY ONLINE. The main content area features a table of compliance reports and a sidebar for environment management.

Sl.no.	Title
1	Compliance Report -Thervoy Kandigai for June 2023
2	Compliance Report - Pillaipakkam for June 2023
3	Compliance Report - Vallam Vadagal I for June 2023
4	Compliance Report - Vaipur Mathur for June 2023
5	Compliance Report - Aerospace Park for June 2023
6	Compliance Report - Cheyyar for June 2023
7	Compliance Report - Manaparai for June 2023
8	Compliance Report - Tindivanam for June 2023
9	Compliance Report - Manallur for June 2023
10	Compliance Report - Vallam Vadagal II for June 2023
11	Compliance Report - Thoothukudi for June 2023
12	Compliance Report - Nemili for June 2023
13	Compliance Report - Mambakkam for June 2023
14	Compliance Report - Marudhandapalli for June 2023
15	Compliance Report - Theni for June 2023
16	Environmental Statement for the Financial Year - 2022 - 2023

ENVIRONMENT MANAGEMENT

- > Environment Policy
- > Environmental Clearance
- > Compliance Report

The Windows taskbar at the bottom shows the search bar, system tray with icons for network, volume, and power, and the date and time: 2:56 PM, 15-Nov-23.

17	Cheyyar	Thiruvannamalai	
	a) Cheyyar - I		Download
	b) Cheyyar - II		Download
18	Oragadam	Kancheepuram	
	a) Oragadam		Download
	b) Vaipur Mathur		Download
19	Thervoykandigai	Thiruvallur	Download
20	Pillaipakkam	Kancheepuram	Download
21	Vallam Vadagal	Kancheepuram	
	a) Vallam Vadagal - I		Download
	b) Aerospace Park		Download
	c) Vallam Vadagal - II		Download
22	Manaparai	Tiruchirappalli	Download
23	Tindivanam	Villupuram	Download
24	Manallur	Thiruvallur	Download
25	Thoothukudi - II	Thoothukudi	Download
26	Nemili	Kancheepuram	Download
27	Marudhandapalli (Hosur Phase-IV)	Krishnagiri	Download
28	Mambakkam	Kancheepuram	Download <small>new</small>
29	Theni	Theni	Download <small>new</small>

SIPCOT – PILLAIPAKKAM MONITORING PHOTOS

AMBIENT AIR QUALITY MONITORING PHOTOS:



Project site



Anakaputhur



Karunagaracheri



Amarambedu

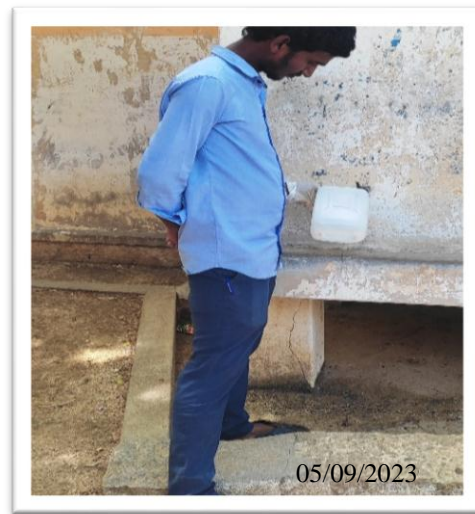


Vengadu

Ground water sampling photos



Project area



Karunagaracheri



Anakaputhur

Surface water sampling photograph



Vengadu Lake



Anakapathur Pond

Soil sampling photograph



Project area



Anakapathur



Karunagaracheri



Amarambedu



Vengadu

Noise monitoring photograph



Project area



Anakaputhur



Karunagaracheri



Amarambedu



Vengadu



SIPCOT

P-III/EC/I/27207/2023/PK

Date: 25.09.2023

To,
The Member Secretary,
Tamil Nadu Pollution Control Board,
No.76, Mount Salai, Guindy,
Chennai - 600 032.

/RPAD/

Sir,

Sub: SIPCOT Industrial Park, Pillaipakkam - Environmental Statement for the
Financial Year ending 31st March 2023 - Submitted - Reg.

Ref: SEIAA EC Letter No. SEIAA/TN/EC/8(b)/112/F-411/2010/ dt. 11.02.2011.

With reference to the above, we hereby submit the Environmental Statement
in Form-V as prescribed under the Environmental (Protection) Rules, 1986 and its
subsequent amendment in respect of SIPCOT Industrial Park at Pillaipakkam,
Navalur & Vengadu Villages, Sriperumbudur Taluk, Kancheepuram District, Tamil
Nadu for the Financial Year ending 31st March 2023.

Yours faithfully,
Sd/-
MANAGING DIRECTOR

Encl: As above.

/Forwarded by Order/

ASSISTANT GENERAL MANAGER (P-III)



State Industries Promotion Corporation of Tamil Nadu Limited

(A Government of Tamil Nadu Undertaking)

CIN : U74999TN1971SGC005967

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

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