

THOOTHUKUDI CITY MUNICIPAL CORPORATION

Solid Waste Management Department



EMERGENCY RESPONSE PLAN FOR THARUVAIKULAM LAND FILLSITE

**Solid Waste Management Department
Tharuvaikulam compost yard,
Mela Arasadi, Thoothukudi.**

**THOOTHUKUDI CITY
MUNICIPAL CORPORATION**

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1. Amendment Record Sheet

S. No.	Date	Amendment/ Revision	Revision Number
1.	03.04.2020	First Issue	0

3. Purpose

As a part of company's responsibility towards Occupational Health and Safety of its workers, this Emergency Response Plan is made.

It is duty on the part of occupier and on part of factory manager to provide and maintain necessary resources, educate all managers, officers, supervisors, company workers, contractors' workers, security persons and visitors to elevate their safety awareness and prepare them for handling any kind of emergency. This can be ensured by providing adequate resources, training and conducting mock drills periodically.

The purpose of this Emergency Response Plan is to enable quick emergency response thereby minimizing harm to people and, damage to plant and environment. This document lists out and describes the measures to be taken in case of various site emergencies.

4. Scope

This Emergency Response Plan is made for the Tharuvaikulam compost yard site with the intention to control the probable emergencies that may occur inside the site premises.

Any changes to this scope shall be documented in the ARS.

5. Objectives

- i. To list and describe the probable emergencies that may occur at the site.
- ii. To enable quick rescue and provide immediate medical assistance to injured persons.
- iii. To list out the roles and responsibilities of the Emergency Response Team.
- iv. To control the emergencies quickly to minimize the harm to persons inside and in the vicinity of the site due to the emergency.
- v. To enable correct and efficient emergency communication.
- vi. To enable quick recovery from emergencies.



6. Terms, Definitions and Abbreviations

ADCD	:	Assistant Disaster Control Director
ARS	:	Amendment Record Sheet
CAPA	:	Corrective Actions and Preventive Action
CCOHS	:	Canadian Centre for Occupational Health and Safety
DCD	:	Disaster Control Director
EPA	:	Environmental Protection Agency
ERP	:	Emergency Response Plan
TCY	:	Tharuvaikulam Compost Yard
HSE	:	Health, Safety and Environment
IFRC	:	International Federation of Red Cross and Red Crescent Societies
OHS	:	Occupational Health and Safety
OSHA	:	Occupational Safety and Health Administration
PMT	:	Project Management Team
WHO	:	World Health Organization

6.1 INCIDENT

An undesired, unplanned event that adversely affects the completion of the task {OSHA}

Incident is an undesired, unplanned event that has occurred and may have caused property damage but did not result in injury or illness.

6.2 ACCIDENT

An accident is an unplanned event that causes personal injury or property damage. {OSHA}

An incident that has resulted in injury or illness.

6.3 MAJOR ACCIDENT

Major Accident means an incident involving loss of life inside or outside the site or ten or more injuries inside and/or one or more injuries outside or release of toxic chemical or explosion or fire or spillage of hazardous chemical result in 'on-site' or 'off-site' emergencies or damage to equipment leading to stoppage of process or adverse effects to the environment. {GFR, 68-J (1)(d)}

6.4 EMERGENCY

Emergency is a state in which normal procedures are suspended and extra-ordinary measures are taken in order to avert a disaster {WHO}

An Emergency is a situation that poses an immediate risk to health, life, property or environment.

To be classified as a major emergency, the incident would be potentially beyond the normal capabilities of the principal emergency services in the locality.

It could cause one or more of the following

- Death or injury
- Serious disruption to essential services
- Damage to property, the environment or the infrastructure {EPA}

6.5 HAZARD

A **hazard** is any source of potential damage, harm or adverse health effects on something or someone {CCOHS}.

Anything that has the potential to cause harm is termed as a Hazard. Hazards occurring at workplaces are termed as Occupational Hazards.

6.6 RISK

Risk is the likelihood that a person may be harmed or suffers adverse health effects if exposed to a hazard. It may also apply to situations with property or equipment loss, or harmful effects on the environment {CCOHS}

Risk is the product of the severity of consequences and the likelihood of occurrence.

Risk= Severity x Likelihood

6.7 ON-SITE EMERGENCY

An incident takes place in a factory and its effects are confined to the factory premises involving only the people working in the factory.

6.8 OFF-SITE EMERGENCY

If an incident takes place in a factory and its effects are felt outside the factory premises, the situation thus generated is called an off-site emergency.

6.9 DISASTER

A **disaster** is a serious disruption occurring over a relatively short period of time that causes widespread human, material, economic or environmental loss which exceeds the ability of the affected community or society to cope on a timely basis using its own resources {IFRC}

6.10 SAFE ASSEMBLY POINT

Identified, demarcated locations inside the plant premises that are considered safer (relatively) to the rest of the plant area, and are used in case of an emergency, for temporarily assembling plant workers and visitors, till the emergency is over or they are evacuated from the premises.

7. Introduction

Tharuvaikulam compost yard is located at Mela Arasadi, Thoothukudi. The site area is 526 acres/ 2,128,196 sq. mtrs.

The site map is attached in Annex 1.

The total number of TCY employees on site shall be 24 and total number of workers (including TCY employees) at site shall be around 150. The site is equipped with 04 numbers of fire extinguishers and 01 number of vehicles that can be utilized for emergency control.

The nearest fire station is at WGC road located 11 km away.

The nearest Police station is Thalamuthu nagar Police Station located 3 km away.

The nearest medical assistance (primary health center) is Mapillaiyurani located 7 km away.

All emergency contact numbers are given in Annex 2.

8. Emergencies Identified

The following is the list of probable emergencies that may occur at this Tharuvaikulam site:

- i. Fire
- ii. Explosion
- iii. Oil/ Chemical Spill
- iv. Collapse of civil structure/ Soil cave in
- v. Overturning/Falling of Crane/ Hydra
- vi. Falling of live electric lines on site
- vii. Epidemic
- viii. Earthquake

Emergency shall be declared only by Site In-charge/ or his 2nd in-charge in case the Site In-charge is not present at site. In-case both are un-available, the person authorized by the Site In-charge (as mentioned in standing instructions) at site shall be authorized to declare a site emergency.

Loud Speaker (Public Address System) provision is present at site to declare a site emergency.

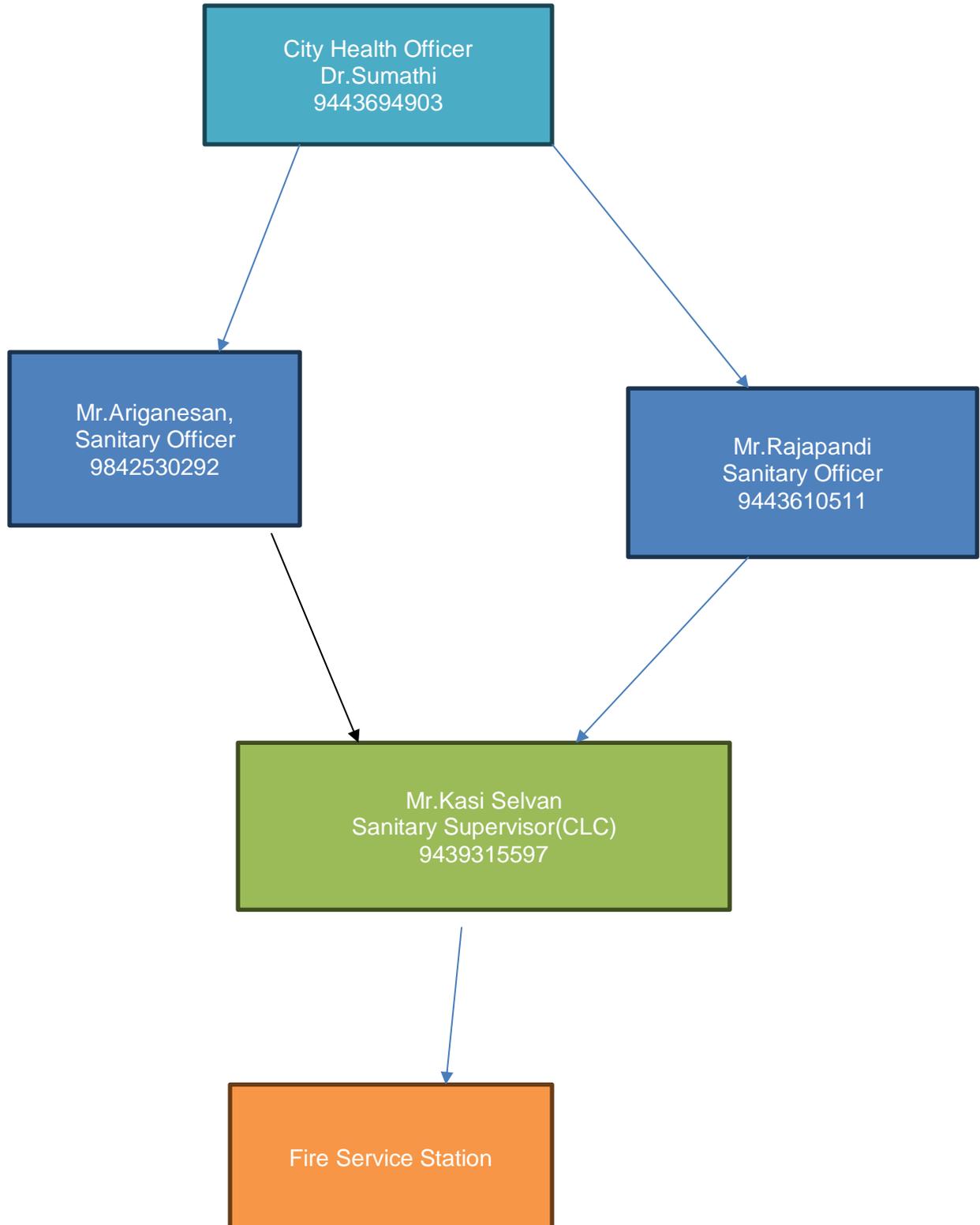
9. Emergency Response

- i. Fire- In case of wide spreading fire, the response shall be to evacuate the workers from the site and start fire fighting immediately to control the spread of fire. Assistance shall be asked from the nearest fire station for rescue (if) and damage control. First aid and immediate medical attention shall be provided to injured.
- ii. Explosion- Explosion usually causes a sporadic fire. The response shall be to evacuate the workers from the site and start fire-fighting immediately to control the spread of fire. Assistance shall be asked from the nearest fire station for rescue (if) and damage control. First aid and immediate medical attention shall be provided to injured.
- iii. Oil/ Chemical Spill- The response shall be control and containment. Control and stop the leakage and to confine the spillage to that area only. First aid and immediate medical attention shall be provided to those exposed to the spillage. Clean up shall be started taking all safety precaution and PPEs; care shall be taken to prevent fire and explosion. Outside assistance may be sought.
- iv. Collapse of civil structure/ Soil cave in – The response shall be to evacuate the workers from the plant, take head count and rescue those buried under the debris. Local fire department shall be informed for rescue activities. Care shall be taken to prevent fire and explosion.
- v. Overturning/ Falling of Crane/ Hydra – The response shall be to rescue the operator and other workers involved in the accident. Provide first aid and immediate medical attention to the injured workers. The response shall change in case the accident involves a live electric line. Assistance may be sought to upright and salvage the crane/ hydra.
- vi. Falling of live electric lines on site- The response shall be to evacuate all workers from the site, stopping all activities and informing the local authorities (GETCO/DISCOM, Fire station etc.)

- vii. Epidemic- The response shall be to stop all activities and confine all workers at the site. Immediately call for medical assistance. First aid may be provided.

- viii. Earthquake- The response shall be to stop all activities and evacuate all workers from the site to an open area that is not close to overhead electric lines, buildings, structures, pits, trees etc. Provide first aid and do not resume work shortly after the tremors.

10. Emergency Communication Matrix



11. Roles & Responsibilities

Sr. No	Emergency Role	Duties & Functions during Emergency
1.	Disaster Control Director (Site In-charge)	<ul style="list-style-type: none"> ➤ Overall administrative in-charge in case of a plant emergency and will be the final decision-making authority. ➤ To take decisions for declaring Onsite emergency after assessing magnitude of occurrence. ➤ Declaring Offsite Emergency in consultation with District authorities If emergency is likely to affect the peoples of outside the company ➤ Ensure all designated person function their defined emergency duty. ➤ Declare “Emergency Clear” in consultation with Emergency Co-ordinator and External emergency response agencies. ➤ Inform and consult with HO regarding emergency response. ➤ Chair meetings for incident investigation and RCA.
2.	Assistant Disaster Control Director	<ul style="list-style-type: none"> ➤ 2nd In-charge, shall take charge as DCD in case Site Incharge is not present at site. ➤ Assist DCD in emergency response and decision making.
3.	Emergency Co-ordinator	<ul style="list-style-type: none"> ➤ Shall co-ordinate all emergency response activities ➤ All team In-charges shall report to him. ➤ He shall be in constant communication with ADCD/DCD and update about the status of emergency control. ➤ He shall lead the incident investigation team after the emergency is over. ➤
4.	Communication In-charge	<ul style="list-style-type: none"> ➤ He shall seek outside assistance, with permission from the DCD and shall update the agencies/ authorities of the current situation. ➤ He shall stay in contact with the Emergency Co-ordinator and stay updated on the situation of the site. ➤ He shall receive the emergency response agencies (fire brigade, medical assistance etc.) and direct them to the appropriate team In-charge. ➤ He shall communicate with the media in consultation with the DCD.
5.	Engineering Team In-charge	<ul style="list-style-type: none"> ➤ He shall co-ordinate with engineers and contractors to provide the necessary resources & utilities like water, power, lighting arrangement, electric supply cutoff & Power isolation etc. Shut down of other operations. ➤ He shall lead all emergency maintenance activities at the site.
6.	Fire fighting and Rescue team In-charge	<ul style="list-style-type: none"> ➤ He shall lead the fire fighting and rescue team at site. ➤ Inform Emergency co-ordinator of all developments and

Sr. No	Emergency Role	Duties & Functions during Emergency
		<p>requirements regarding firefighting and rescue.</p> <ul style="list-style-type: none"> ➤ Inform Fire Brigade of the latest situation and the steps taken so far. ➤ If asked, assist fire brigade in firefighting and rescue.
7.	First aid team In-charge	<ul style="list-style-type: none"> ➤ Shall make provisions to provide first aid to injured persons and safe keeping till medical assistance is provided. ➤ Inform Emergency co-ordinator of all developments and requirements regarding first aid. ➤ Inform medical assistance team about the latest situation and measures taken so far.
8.	Security team In-Charge	<ul style="list-style-type: none"> ➤ Make provisions to gather and keep workers at the Safe Assembly Point, take head count and inform about injured, sick, missing workers to the Emergency Co-ordinator. ➤ Shall ensure no unauthorized entry into the site ➤ Ensure smooth traffic flow in and around the site to ensure quick access for emergency response agencies. ➤ Inform Emergency co-ordinator of all developments and requirements regarding security.

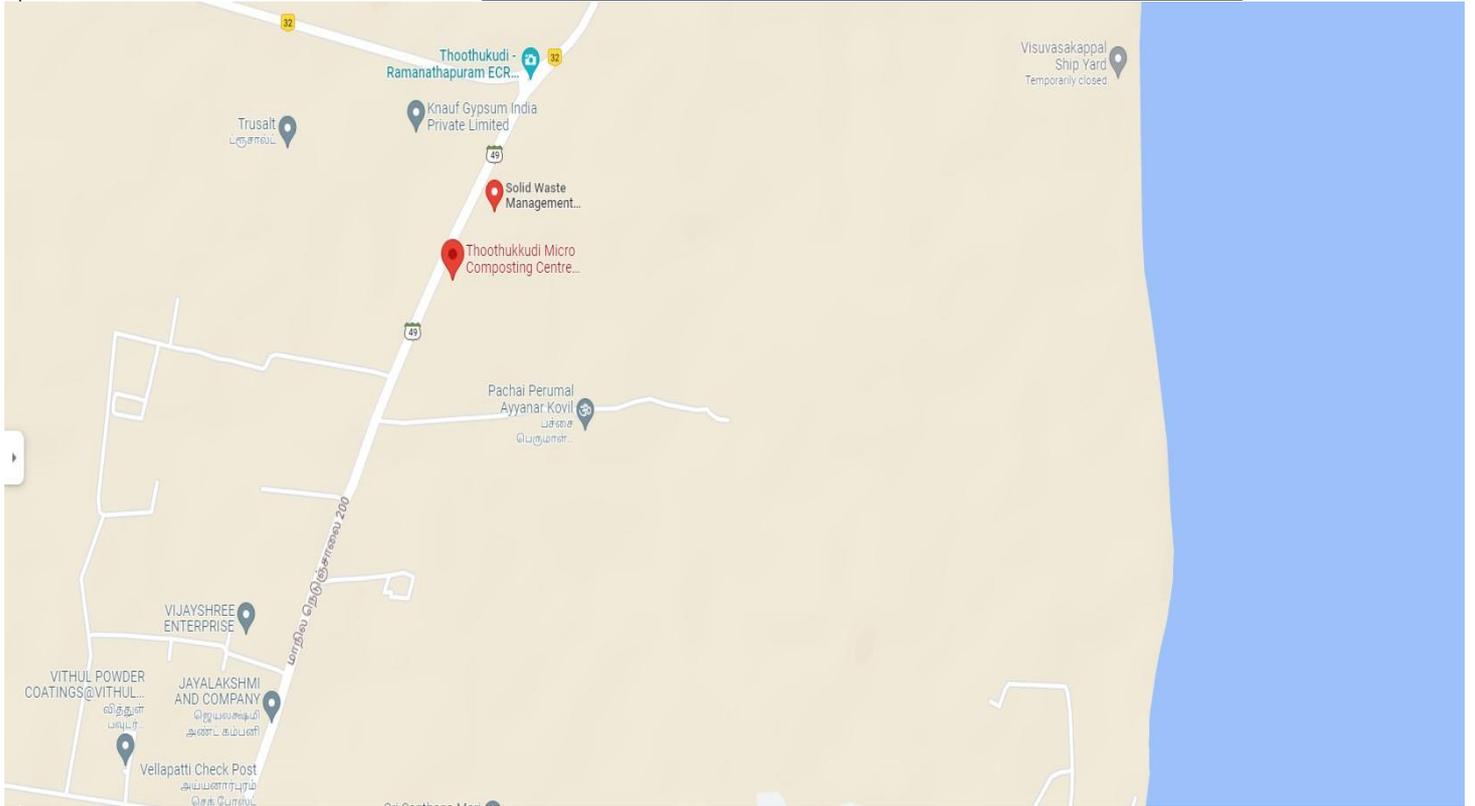
12. Post-Incident Activities

- i. Once “Emergency Clear” has been declared, a site round shall be taken by all team leaders along with Emergency Co-ordinator and notes shall be taken on the site observations.
- ii. Salvage and clean up operation shall be started on orders from the DCD.
- iii. Incident investigation shall be done as soon as possible (with inputs from emergency response agencies) by the site team. Consultation from HO and experts may be sought for this.
- iv. The Site Incharge shall chair the incident investigation and Root Cause Analysis meetings.
- v. The root causes identified shall be taken as priority and Corrective and Preventive actions shall be taken in a time bound manner.
- vi. The Site Incharge shall review the CAPA and its effectiveness; and shall advise accordingly.

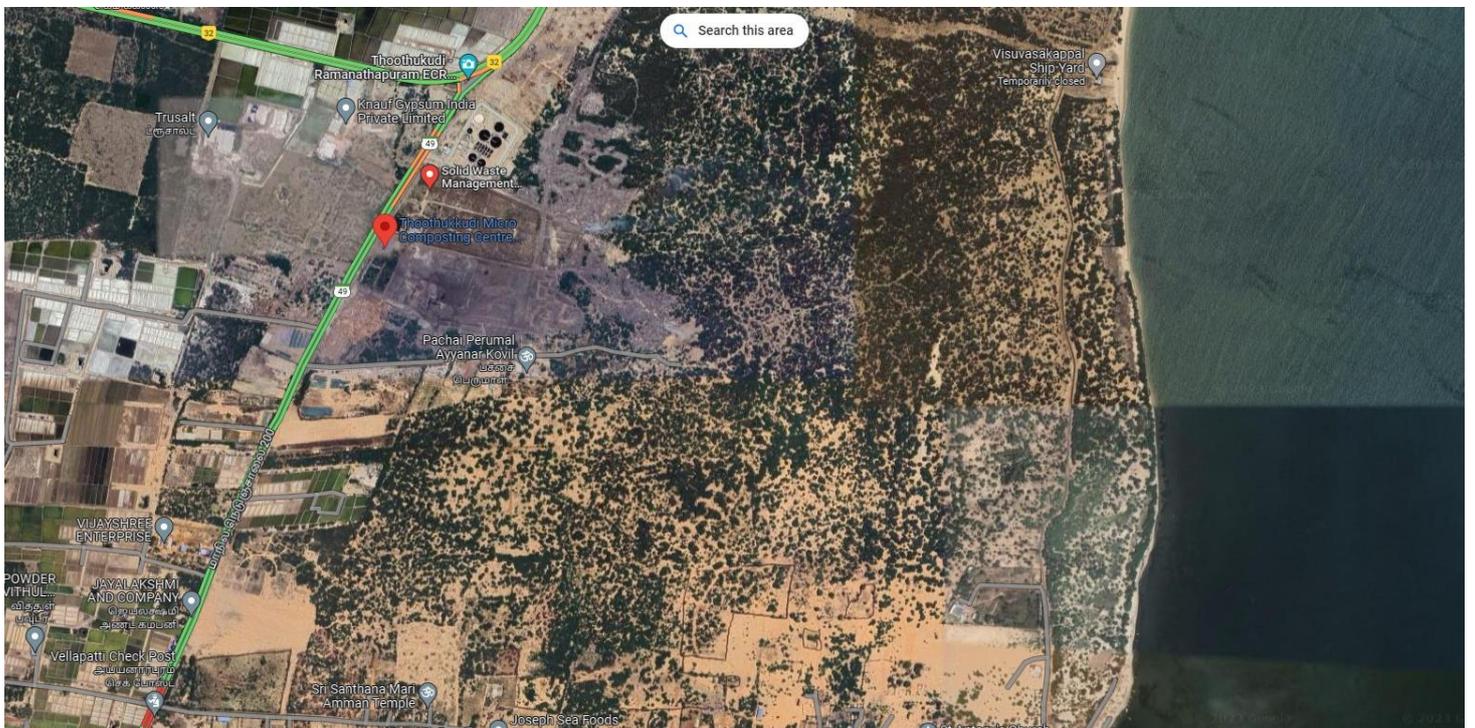
13. Review and Update

This Emergency Response Plan shall be reviewed atleast once a year or immediately after every site emergency. The plan shall be updated based on the points of the review meeting. All changes shall be documented in ARS.

Annex 1 – Sitemap- Tharuvaikulam Compost Yard



Tharuvaikulam Compost Yard satellite view



Annex 2

Emergency Contact Numbers

S.No.	Name	Designation	Phone no.
1	Dr.Sumathi	City Health Officer	9443694903
2	V.Ari Ganesan	Sanitary Officer	9842530292
3	S.Rajapandian	Sanitary Officer	9443610511
4	Kasi Selvan	Sanitary Supervisor (CLC)	9489315597