Method Statement
For
Tank Cleaning Work

Project Details

Method Statement Ref#	
Project Ref #	
Project Name	
Site Name	
Contractor	
Activity	Tank Cleaning

Project Management Team Details

Project Manager	
Project Engineer	
Site Manager	
Site Supervisor	
HSE Manager	
HSE Officer	
Site Safety Officer	

Prepared By	Approved By

Document Revision Summary

Date	Reviewed By	Rev #	Description

Contents

1. Purpose

The purpose of this procedure is to provide guidance and safe guidelines to execute the job safely and without any harm to the workers involved in the activity and the other people available at the client's worksite.

2. Scope

The procedure is written to satisfy the requirements of the job, provide guidelines and involves names of all the employees, sub-contractors and applicable to all employees of the organization and all activities that are to be performed.

3. Routine life Tank Cleaning Procedure

In routine life, cleaning tank procedure varies from due to nature of the tank being cleaned. If it is accessible and safe for work, the procedure will be easy. If the tank is not accessible easily neither safe and contains any chemicals that are dangerous for human life those tanks should not be cleaned unless the client and contractor both adopt some safety measures and correct actions have been implemented to control the hazard. Only trained and experienced workers should be hired to perform the job with all safety measures.

4. Water Storage Tank Cleaning Frequency with Respect to Type

As the tanks are made of different material for example, concrete, plastic etc. Tanks are used for both residential and commercial purposes. Not only this, both types are used for water storage on ground, underground and on the roof. Below mentioned table includes different types of tanks and their cleaning frequency.

	S/#	Type	Location	Cleaning & Disinfection Frequency
Residential and Commercial	1	Concrete	**Underground**	Bi-annually
			On Ground	
			Roof	Annually
	2	Plastic	**Ground**	Annually
			Roof	Annually
	3	FRP – Fiberglass Reinforced Plastic Water Tanks	**Ground**	Annually
			Roof	Annually
	4	GRP – Glass Reinforced Plastic Water Tanks	**Ground**	Annually
			Roof	Bi-annually
	5	GI & GS GI: Galvanized Iron GS: Galvanized Steel	**Ground**	Annually
			Roof	Annually

Note	Note: Due to rusting along the passage of time, GI & GS water storage tanks not safe for use.

5. General Requirements for Water Storage Tank

- It is required that the user keep the water storage tank clear, neat, tidy and free of any dangerous substance.
- The water stored in the tank is hygienic and in compliance with the National Water Quality Standard.
- If the water storage tank is placed on public location and being used by the public, the surrounding area should be safe and working environment should be safe.
- The person monitoring the Water Storage Tank should ensure that the entire area is free of physical, environmental, as well as biological hazards.
- The water quality should be tested on regular basis, and the access to the area, sampling, cleaning, disinfection, and exit from the area should be safe and in compliance with national regulations.
- Hazards should be controlled and suitable control measures should be in place to control the risk.

6. Confined Space Working Environment

6.1. General Planning

As the activity of cleaning and disinfecting the water storage tank involves the entry in confined space, following actions needed to be taken.

- Risk Assessment of the job
- HSE planning
- Emergency Response Planning
- Consideration and implementation of control measures
- Selection of team with relevant experience and training to perform the job
- Provision of resources and equipment to perform the job

6.2. Permit to Work

- Permit to Work prepared by competent and experienced person with previous experience of working in confined space
- Project Manager/ Site Manager will review the Permit to Work and sign it
- Copies of the Permit to Work shall be distributed among concerned parties/departments
- One copy of the Permit to Work shall be made available for anyone near the working area
- Attendant will supervise the job and entry of the entrants in confined space/ water tank
- Attendant or any compatible person has right to terminate the Permit if see conditions existing on site exceed the scope of the work permit. E.g., hazard existing in confined space but not considered in permit
- In case of emergency, Attendant will alert others and Emergency Response Team to rescue the entrants

7. Tank Cleaning Work Procedure

Tank cleaning work procedure requires the job to be divided in parts and each part consists of sub-activities that are divided into 2 different sections;

- Pre-checks
- Cleaning and Disinfection

7.1. Pre-Checks

- Selection of workers – screening process to check competency, experience and physical fitness for job.
- HSE Induction, pre-job information, refresher training as well as information exchange.
- Provision of PPEs for the job e.g., Helmet, Masks, Harness with retrieval line, gloves etc.
- Gas testing inside the tank for any hazardous gas.

- First aid box and emergency response team provision.
- Emergency services contact details are available at the worksite.
- Confined space entry permit to work is available at worksite processed by competent person and approved by site manager/ project manager.
- All tools and equipment are well-maintained and in good working position.
- Inspection of the work space as per HSE requirements.
- Before entering the tank either under ground or on the roof, check the weather conditions. Working at height in high winds is dangerous and by law prohibited.

7.2. Cleaning and Disinfection

7.2.1. On the Roof/ On the Ground

- Check weather conditions.
- Retrieve the Permit to Work.
- Barricade the whole working area and ensure that unauthorized persons don't enter the premises.
- Arrangement for suitable mean of access and egress.
- Close the inlet valve & empty the tank.
- Scrub the tank walls or use pressure hose to clean the dirt.
- Use approved tank cleaning chemical and clean the walls, floor and roof of the tank.
- Rinse the tank and drain the dirty water.
- Apply the disinfectant chemical to the tank walls, roof, and the floor and leave it for 30 minutes.
- Rinse the tank and drain the waste water again.
- Retrieve all the tools and elements that were introduced in the space for task and get out of the tank.
- Open the valve of the water inlet and fill the tank with fresh water and take sample.
- If results are as per requirements, water can be used otherwise repeat cleaning process after 48 hours.

7.2.2. Underground Water Tanks

Underground water tanks are large enough to store huge amount of water as compared to others, so inform the client 48 hours at least before commencement of the job. Further take actions accordingly;

- Shut the inlet valve of the tank 24 hours before commencement of the job.
- Lock and tag out the water source and electrical system.
- Open the tank's hatch and leave for 20 minutes for venting.
- Barricade the area around the working area and post safety signs including "Opening Ahead".
- Inspect the Tank and ensure the environment is safe for working. Use **Gas Detector** to measure oxygen level.
- If oxygen level is less than required, provide airline to workers.
- If safe for work, insert air exchange/ exhaust fan hose.
- Throughout the activity, monitor the gas level inside the confined space.
- Take out the residual water with sucking pump and dump it in sewerage.
- Arrangement of safe mean of access and egress should be made and available at the workplace.
- Use ladder or pre-installed ladder to get into the tank.
- Workers are wearing harness when climbing down the ladder & harness is attached to retrieval line.
- Scrub the walls and roof of the tank using hand brush or pressure hose to remove dirt and other elements.
- Apply approved water tank cleaning agents and take out all the waste water.
- Now apply the disinfectant and clean the tank again using water and leave it for 30 minutes at least.
- Rinse the water tank and drain the waste water using outlet valve or any suck pump.
- Once done, the surfaces, walls, and floor of the tank have dried, fill it with the water.
- If necessary or required, take water sample and analyse it.
- If result as per requirements, close the hatch and fill it with fresh water for use.

- If not, inform the users and repeat the cleaning process followed by disinfectant chemical.

Note
If the activity takes more than one day or exceeds the permit duration, submit the permit for extension. If activity takes more than 1 day, ensure during leaving the confined space, it is closed and secured so no one enter the area.

8. Tools & Equipment

S/#	Tools & Equipment	Quantity

9. Manpower Requirements

S/#	Designation	Quantity
	Total	

10. Annexures

S/#	Annexure	Doc Ref #
1	HSE Plan	
2	Confined Space Risk Assessment	
3	Work at Height Risk Assessment	
4	Confined Space Work Permit	
5	Work at Height Work Permit	
6	Confined Space Workers Training Certificates	
7	Toolbox Talk Attendance Record	
8	Induction Training Attendance Record	