



## BASIC SEPTIC TANK DESIGN

### COURSE DESCRIPTION

Septic tank is a small scale on-site sewage treatment system common in areas with no connection to main sewer pipes. It is a simplest form of sewage treatment. The dominant types of septic tank are cast in-situ and prefabricated.

There are an estimated 1 million premises with cast in-situ and prefabricated septic tank in the country. Hence, it was deemed necessary that a training module be developed to train the technicians, team leaders and operators of the septic tank on the basic design such as basic treatment process, sizes, parts & components and typical layout of septic tank.

### COURSE OBJECTIVES

The objectives of this module are:

1. To educate IWK staffs on the basic design of the typical types of septic tank i.e. cast in-situ and prefabricated.
2. To improve the knowledge of process, performance and design issues of septic tank.

### SCOPE

The scope of this module is to ensure that operators from Desludging and Treatment Section have the knowledge of the following:-

1. Septic tank treatment process
2. Basic design criteria and functions of septic tank parts & components
3. Final effluent quality of septic tank
4. Basic design issues of septic tank

### COURSE CONTENT

The propose table of content for this module is as follows:-

- 1.0 Introduction of Septic Tank
- 2.0 Septic Tank Treatment Process
- 3.0 Types of Septic Tank
- 4.0 Size of Septic Tank
- 5.0 Parts & Components of Septic Tank
- 6.0 Sitting Layout Design
- 7.0 Typical Performance of Septic tank
- 8.0 Desludging Requirements
- 9.0 Basic design Issues of Septic Tank

## LEARNING OUTCOMES

After attending this course, the trainees would be able to:

- understand the treatment process of septic tank
- discuss the difference types of septic tank
- identify the capacity of septic tank
- know the basic design criteria and functions of septic tank parts & components
- know the location of septic tank in the premises
- understand the typical performance of septic tank
- know the requirements of desludging works
- know the basic design issues of septic tank

## METHODOLOGY FOR MODULE DEVELOPMENT

Literature review:

- To review literature on the process, types and performance of septic tank systems

2. Data gathering:

- Interviews with Desludging and Treatment key personnel from various unit offices will be carried out to gather data
- Site visits to record data, photographs, etc.

## DELIVERABLE

Training module consisting of the following component shall be delivered:

- Training module covering knowledge aspects PowerPoint slide format and / or others
- OPI/JSA (if available or relevant)
- Other selected reading material or article (if suitable or applicable)

## DURATION

1 Day.

## WHO SHOULD ATTEND

This module is targeted for non-executive staffs such as supervisors, technicians, team leader, and selected operators (G7-G12) who belongs to the treatment / Desludging sections of unit operation office.

## COURSE FEE

RM600.00 per person.