

MODULE: INTRODUCTION TO M&E FOR SEWERAGE SYSTEM

Introduction

The Introduction To M&E For Sewerage System course will provide the skills and knowledge in standard understanding of the essential Mechanical & Electrical equipment and systems at a Sewage Treatment Plant (STP). Comprehensive course notes are provided.

Objective

Upon completion of this course, participants will be able to:

- Identify and understand the essential M&E equipment and systems at a STP
- Understand features, key elements of the essential M&E equipment and systems at a STP

Course Outline

Day 1

- **Mechanical Equipment & Systems in STP**
 - ❖ Pre-treatment system
 - Penstocks
 - Mechanical Screen
 - Screw Conveyors
 - ❖ Pumping System
 - Pumps
 - Valves
 - Pipe & Fittings
 - Ventilation Fans
 - Chain Hoists
 - Surge Vessel
 - ❖ Oil & Grease Removal System
 - ❖ Grit Removal System
 - ❖ Aeration System
 - Aeration Devices
 - Motorised Valves
 - Air Diffuser
 - Mixers
 - ❖ Air Blower System
 - Air Blowers
 - Pipe & Fittings

Day 2

- ❖ Clarification System
 - Clarifiers
 - Decanters
 - Scum Skimmers
- ❖ Sludge Handling System
 - Sludge Thickener
 - Sludge Dewatering
- ❖ Disinfection System
- ❖ Flow Measurement
- **Electrical Equipment & Systems in STP**
 - ❖ Electrical Control Panel
 - ❖ Drives – Conventional, VSD, Soft starters
 - ❖ Instrumentations – sensors, meters, HMIs
 - ❖ Surge Protection System

Who Should Attend

This course is designed for services personnel who are involved in equipment maintenance/operation works at Sewage Treatment Plant.

- Engineers/ Executives
- Supervisors
- Technicians
- Operators

Duration

- Two(2) Days
- 9.00 am – 5.00 pm

Class Size

- 25 – 30 pax per session

Methodology

- Classroom lecture & practical session at selected STP