

MODULE: PROBLEM SOLVING & TROUBLESHOOTING COURSE (BEGINNER)

Introduction

The Problem Solving & Troubleshooting course (beginner) will provide the skills and knowledge in basic understanding of the common M&E issues in equipment & systems at a Sewage Treatment Plant (STP) as well as troubleshooting techniques to mitigate the situation. Comprehensive course notes are provided.

Objective

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

- Identify and understand the common problems/faults with M&E equipment and systems at a STP
- Understand steps and apply a systematic, logical approach to fault-finding and troubleshooting

Course Outline

Day 1 : Problem Solving & Trouble Shooting (Mechanical)

- Introduction to Mechanical Equipment & Systems in STP
 - ❖ Pumps
 - ❖ Air Blowers
 - ❖ Mechanical Screen
 - ❖ Screw Conveyors
 - ❖ Grit Classifiers
 - ❖ Valves
 - ❖ Pipe & Fittings
 - ❖ Ventilation Fans
 - ❖ Chain Hoists
 - ❖ Clarifiers
 - ❖ Decanters
 - ❖ Other
- Identify, defining problem area and establish possible causes of Mechanical Equipment & Systems faults
- Troubleshooting of Mechanical Equipment & Systems

Day 2 : Problem Solving & Trouble Shooting (Electrical)

- Introduction to Electrical Equipment & Systems in STP
 - ❖ Electrical Equipment & Component
 - ❖ Electrical Control Panel
 - ❖ Electrical Protection Devices
 - ❖ Lightning & Earthing protection systems
 - ❖ Instrumentations
- Identify, defining problem area and establish possible causes of Electrical Equipment & Systems faults.
- Troubleshooting of Electrical Equipment & Systems.

Who Should Attend

This course is designed for Mechanical & Electrical services personnel who are involved in equipment maintenance works at Sewage Treatment Plant.

- Supervisors
- Technicians
- Operators

Duration

- Two days
- 9.00 am – 5.00 pm

Class Size

- 25 – 30 pax per session

Methodology

- Classroom lecture