Operation of Sewage plant (STP)

YOU WILL LEARN HOW TO:

At the end of this course, participants will gain the following:
•Understand the nature Sewage treatment
•Understand the new Storm Water treatment
•Getting the skills of design sewage and storm water treatment plant.
• Getting the Know how of maintenance plan for sewage plant.

WHO SHOULD ATTEND:

- Maintenance engineers, technicians and staff
- Plant engineers
- Operation, maintenance, inspection and repair managers,

The Workshop

Sewage treatment is the process of removing contaminants from wastewater and household sewage, both runoff (effluents), domestic, commercial and institutional. It includes physical, chemical, and biological processes to remove physical, chemical and biological contaminants. Its objective is to produce an environmentally safe fluid waste stream (or treated effluent) and a solid waste (or treated sludge) suitable for disposal or reuse (usually as farm fertilizer). Using advanced technology it is now possible to re-use sewage effluent for drinking water,in this course we will cover Operation of Sewage plant (STP)

Practical Sessions

This is a practical, hands on workshop enabling you to work through practical exercises which reinforce the concepts discussed.

The Program

Module (01)
- Introduction and definitions.
- Water quality.
- Chemical and Physical properties of water.
- Sedimentation and Filtration.
- Sewage pollution

Module (02)
- Poperties of liquids wastes–rates and collection.
- Maintenance of the sewage system
- Oxidation ponds, reactions, Ph, design, facultative, maturation ponds & Arabic high rate ponds , maintenance and costs.
- Aerated lagoons, design, classification, importance & advantages, operation.

Module (03)
- High lift pumps, elevated tanks. Boosters and valves & control
- Stages of sewage treatment: preliminary treatment, primary treatment, secondary treatment, and tertiary treatment.
- Design of grit chamers, imoff tanks, extended aeration ,oxidation ditches, sludge drying beds, septic tanks

Module (04)
- Intermittent discharges (combined sewer overflows and storm drains).
- Biochemical Oxygen Demand (B.O.D) and chemical Oxygen demand (C.O.D)
- Advanced waste treatment.
- Preventing and solving sewage treatment problems during a flood.
- What do I need to do after the flood is over?

Module (05)
- How to improve the efficiency of sewage system?
- Increasing the performance of the personnel in sewage area.
- Effective communication in the location of sewage.
- Applications and case study.