

# € TRAINING

Wastewater Treatment Reclamation





# Wastewater Treatment Reclamation

## Introduction:

Aging infrastructure. Increasing costs. Changing technologies and protecting public health and improving the water environment. These are among the many issues and opportunities challenging water reclamation - a vital \$100 billion/year industry that includes wastewater treatment facilities, collection systems, and water resource recovery programs.

## Conference Objectives:

At the end of this conference, the participants will be able to:

- Learn to evaluate and apply the latest technologies and processes in water reclamation, and how to improve your own individual facilities, projects, and programs.
- Improve your ability to communicate across multiple disciplines, including engineering, regulations, technology, operations, maintenance, finance, and management.
- Gain insight into the trends and developments that will shape water reclamation in the 21st Century, and how your company and colleagues can tackle these challenges and opportunities.

## Targeted Audience:

- Operators of Wastewater Treatment Plants
- Environmental technology university students and graduates.
- Technicians from the private sector whose work is related to environmental technologies.
- Local Authorities employees.
- Elected Local Authorities representatives who are interested in environmental issues.

## Conference Outlines:

### Unit 1: Practical Management Issues:

- Management Issues.
- Good Management Practices.
- Good Operating Practices.

### Unit 2: Wastewater Collection Systems:

- Collection Systems - Municipal Industrial.
- System Cleaning and Maintenance.
- Underground Repair and New Construction.
- Lift Stations.
- Equipment Maintenance and Safety Issues.

### Unit 3: Conventional Wastewater Treatment Systems:

- Waste Treatment Ponds.
- Racks.

- Screens.
- Comminutors.
- Grit Removal.
- Sedimentation.
- Flotation.
- Trickling Filters.
- Rotating Biological Contactors.
- Activated Sludge Plants.
- Waste Treatment Ponds.
- Disinfection and Chlorination.
- Sludge Digestion and Solids Handling.
- Plant Safety.
- Plant Maintenance.
- Laboratory Procedures and Chemistry.
- Calculations - Analysis - Records.
- Odor Control.
- Activated Sludge and Support Systems.
- Instrumentation and Waste Monitoring.

#### Unit 4: Industrial Wastewater :

- Nature of Waste Water from different Industries.
- Monitoring Techniques.
- API Separators.
- Conventional Industrial Treatment Systems.
- Panic Ponds.
- Chemical Treatment.
- Customized Activated Sludge.
- Petrochemical Waste Water - Special Considerations.

#### Unit 5: Industrial Municipal Wastewater Reclamation Strategy:

- The Problem.
- The Systematic Study of the Problem.
- The Pilot Plant Techniques.
- Study for your Waste Water,
- Preparing Chemical Resistant Activated Sludge.
- Pilot Plant Results Analysis.
- Scaling Up.
- Design of Waste Water Treatment and Reclamation Plants.
- Ion Exchange Softeners.
- Finishing Treatment for Reclaimed Water.
- Special Chemical Additives for particular reuse applications.
- Monitoring and Operation of Reclamation Facilities.
- Special Precautions, Problems, and Solutions with Reclaimed Water use.