

# Reverse Osmosis Specialist Training Level 1

(ROS1)

(Online)

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## Training Details

**Cost:** \$1,270 (ex GST)

**Length:** 32 hours

**Neptune:** Create a FREE Neptune login from our website, which is how you will access your online training modules.



In partnership with:

## Seminar Description

This training provides the basic knowledge and proficiencies required to work with any Reverse Osmosis (RO) water treatment plant.

This includes:

- Overviews of industries in which RO is used
- What the typical process flows are in different industries
- The subsystems of an RO water treatment plant, like air, water and power
- The equipment used, such as tools, valves, instruments, pumps, etc.
- Overviews of RO, RO units and pre-treatment

### Who Should Attend:

Everyone who works with, or will work with, the reverse osmosis and pre-treatment technologies in operating plants needs to know the tips, techniques and proficiencies taught in this seminar, including:

- Operators
- Maintenance personnel
- I & C Technicians
- Supervisors/Managers
- Engineers
- Original Equipment Manufacturers
- Service technicians
- More

## Training Modules

### **Introduction to Water Treatment** (8 hours)

Understand the basics of water treatment and learn about different types of contaminants, source waters and applications for water treatment.

Topics

- Overview of Water Contaminants
- Overview of Water Treatment
- Overview of Source Waters
- Overview of Water Treatment Applications
- Overview of Water Treatment for Various Industries

### **Water Treatment Plant Fundamentals** (9 hours)

Learn to thoroughly understand the basics of how RO Plants Work and the basic tools and knowledge it takes to operate one. Understand different types of piping, valves, pumps and other on-stream instruments; and what each is used for.

Topics

- Plant Services-Air, Water & Power
- Electricity
- Tools
- Piping and Pumps
- Hand and Control Valves
- On-Stream Instruments
- In-Plant Analysis

**Piping and Instrumentation Diagrams** (3 hours)

Learn how to use P&IDs to understand a water treatment plant.

**RO Operation and Maintenance** (11 hours)

You will learn all of the practical information necessary to thoroughly understand Reverse Osmosis (RO) and Nanofiltration (NF) water treatment technologies and apply your knowledge while operating an industrial reverse osmosis water treatment facility.

Overview of Topics

- Water Contaminants Overview
- Semipermeable RO/NF Membranes
- Osmosis & Reverse Osmosis
- Membranes
- Membrane Elements
- Pressure Vessels
- RO/NF Units
- RO Unit Operation
- Seawater RO Unit Operation
- Potential Problems
- Pre-treatment to minimize problems
- Chemical Cleaning of RO/NF units

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