

# **RO Specialist I Certification Classroom/Hands-On**

4-Day seminar

## **Information Packet**

**Seminar Cost:** \$2499 USD (Early Bird Discounts May Apply)

**Seminar Length:** 4 Days

**Seminar Description**

This seminar is designed to provide you with all of the basic knowledge and proficiencies you need to thoroughly understand the reverse osmosis (RO) water treatment process including pretreatment. Topics include:

- Overview of Water Treatment
- Water Treatment Examples
- Plant Services-Air, Water & Power
- Electricity
- Tools
- Piping
- Hand Valves
- Control Valves
- On Stream Instruments
- In-Plant Analysis
- Pumps
- Process Flow Diagrams (PFD)
- Piping & Instrumentation Diagrams (P & IDs)
- Water Contaminants
- Semipermeable Membranes RO/NF
- Osmosis & Reverse Osmosis
- Membranes & Membrane Elements
- Pressure Vessels
- Reverse Osmosis Units
- Brackish Water RO Unit Operation
- Seawater RO Unit Operation
- Potential Problems
- Pretreatment
- Chemical Cleaning

Workshop tests (Knowledge Verification) and hands-on Proficiency Verifications are given each day. Don't worry...you'll pass. Since 1988, DHP has been training water treatment personnel like you. We assume that you know that water is wet...and that's it! We take you step-by-step from ground zero to the basics covered in this seminar. All Workshop tests and Certification Exams are open book because nobody remembers everything for the rest of their lives...but you'll know in the future where to get the information you need in the book when you don't remember.

We provide a lot of repetition so that you will have no problem successfully completing the program. For example, to make sure that you know how an RO membrane element works, we:

1. First, go over the information in a Power Point(TM) format.
2. Second, go over the information in a video format.
3. Third, have you build a simulated RO membrane element.
4. Fourth, using a real membrane element, show how it works.
5. Fifth, have a Workshop about the topic, which is really just a practice exam for the Certification Exam at the end of the day. All Workshops are performed in groups to aid in the learning experience. There will be no surprises on the daily Certification Exams. You will have previously seen and answered similar questions in the Workshops.

NOTE: Certification Exams are optional. If you don't want to be certified, you don't have to take the exams.

### **Who Should Attend**

Everyone who works with or will work with the reverse osmosis and pretreatment technologies in operating plants, including:

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

### **Why You Should Attend**

From a Personal Standpoint

- You will be one of the relatively few RO water treatment specialists around the world that is CERTIFIED!  
Note: For successfully completing this 4-day program you will be certified a Reverse Osmosis Specialist I. There are 4 certification levels total.
- Being certified puts you in a better position for job advancement
- You can't get this information anywhere else
- The instructor has decades of practical RO water treatment experience
- The instructor is a professional trainer
- The seminar covers the material in a step-by-step manner so that everyone will understand the concepts presented
- The presentation uses a multimedia format, with many videos and animations provided
- DHP GUARANTEES that you will be certified. If you don't successfully complete the program the first time, you can retake the CERT-1 program as many times as needed for an additional, small cost-recovery fee, or you can complete online.



#### From an Employer's Standpoint

- Trained employees save you money by:
  - Understanding how each piece of RO water treatment equipment works
  - Knowing how to monitor RO water treatment systems so that problems are caught at an earlier stage
  - Knowing how to correct many problems
- Being able to show clients, customers and any applicable governmental agencies that your employees have been independently certified on their knowledge and proficiencies
- DHP GUARANTEES that your employee(s) will be certified. If one or more don't successfully complete the program the first time, he/she/they can retake the CERT-1 program as many times as needed for an additional, small cost-recovery fee, or he/she/they can complete online.

#### What You'll Receive

- 32 hours of enjoyable, interesting, easy-to-understand training
- A highly illustrated workbook
- Break refreshments
- Personal attention: questions & comments are encouraged
- Upon successful completion, you'll receive a Reverse Osmosis Specialist I certificate

## Instructors Biography

Your instructor will be one of the following



Dick Youmans  
David H. Paul, Inc.  
Director of Certification/  
Instructor

Richard (Dick) Youmans is an instructor/consultant and the Director of Certification for David H. Paul, Inc. (DHP). Since 1977, Dick has been involved in just about every aspect of industrial water treatment with most of those years specializing in reverse osmosis chemical applications, training and troubleshooting. Like all DHP instructor-consultants, he has been in hundreds of water treatment plants covering every major industry. Dick earned a BBA degree from the University of Georgia in 1974 and an Associate of Applied Science Degree in Industrial Water Treatment from San Juan College and David H. Paul, Inc. in 2002.



Steve Siverns  
David H. Paul, Inc.  
Instructor/Consultant

Steve Siverns is an instructor and consultant for David H. Paul Inc. (DHP). Steve has over 35 years experience focused on designing and troubleshooting water treatment processes. He specializes in high purity industrial water treatment and has experience with desalination, water recovery, and waste treatment. Steve is a Professional Engineer (P.Eng.) registered in the province of Ontario, Canada. He received his B.Eng. (1980) and M. Eng. (1984) in Chemical Engineering both from McMaster University.

### **Certificate of Completion**

Each attendee will receive a DHP certificate of completion following the course.

### **DHP Training Seminars**

DHP has trained over 16,000 water treatment professionals worldwide since 1988. Trainees include industrial, governmental and drinking water clients. The average rating given by attendees for all DHP seminars, including this one, is over 9 (on a scale of 1-10, with 1 being a terrible rating and 10 being an outstanding rating).

### **Testimonials**

The following are typical comments from attendees of DHP seminars:

The instructor delivers content in a clear and understanding way...

**Khary Smith - na - BLDC**

Very helpful for me...

**Christopher Flounders - Associate Biotech Manufacturing Engineer - DepuySynthes**

Dick did an excellent job presenting the material. Really enjoy the hands-on. Excellent information.

**Landon Wilson - Chemical Technician - Xcel Energy**

Excellent review. Good hands on practice.

**Douglas Feagley - Facilities Technician 3 - Medimmune**

Learned more than I could imagine.

**Jeff Cress - RO Water Specialist - Kik Custom Products**

Course was very informative...

**Antoine Binns - Tradesman 2 - Ministry of Public Works**

Friendly, down to earth, answered all questions.

**Steve Holland - Electronics Technician - Bureau of Reclamation**

Learned many things I did not know about water system tools used.

**Joanne Truong - Supv Environmental Engineer - NAVFAC Atlantic**