

# 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:

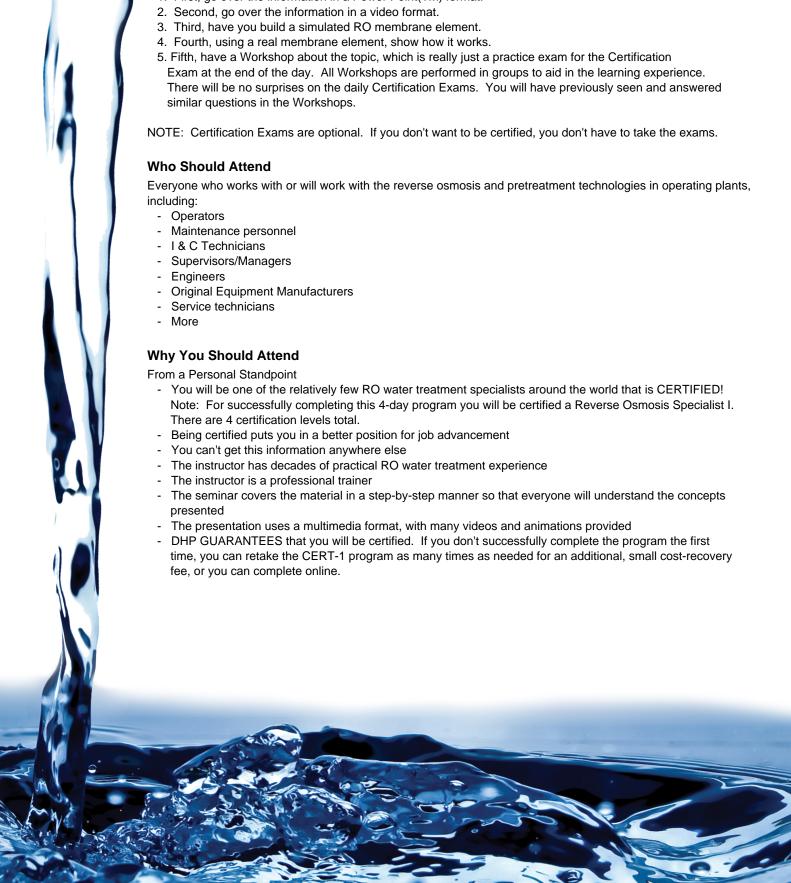
- Overview of Water Treatment
- Water Treatment Examples
- Plant Services-Air, Water & Power
- Electricity
- Tools
- Piping
- Hand Valves
- Control Valves
- On Stream Instruments
- In-Plant Analysis
- Pumps
- Process Flow Diagrams (PFD)
- Piping & Instrumentation Diagrams (P & IDs)
- Water Contaminants
- 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

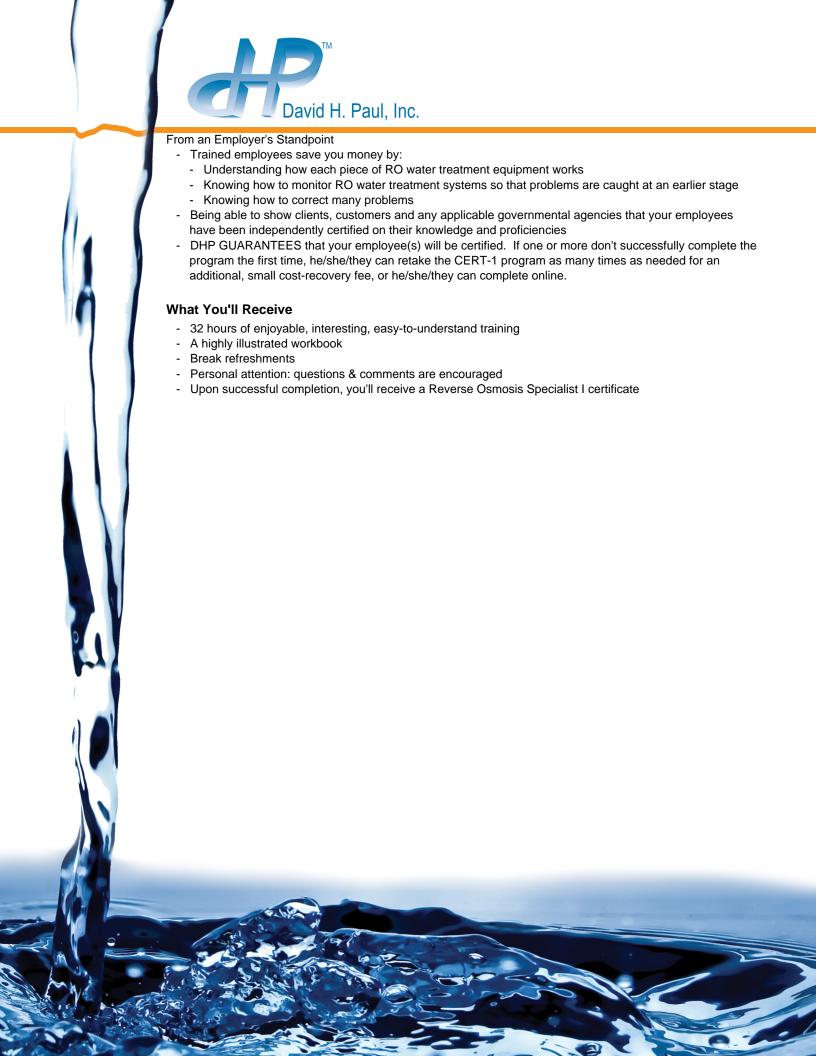
Workshop tests (Knowledge Verification) and hands-on Proficiency Verifications are given each day. Don't worry...you'll pass. Since 1988, DHP has been training water treatment personnel like you. We assume that you know that water is wet...and that's it! We take you step-by-step from ground zero to the 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.







# **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 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:

Friendly, down to earth, answered all questions.

Steve Holland - Electronics Technician - Bureau of Reclamation

This class just gets better each day... The practical experience is what sets DHP Inc. courses apart from the rest.

Davis Odom - Operator - Study Butte Water Supply Corp.

A lot of information that are able to use in the real world...presented so everyone could understand it.

Wayne Tulloch - TBD - Pureflow Inc.

...this course laid a very through and extensive base on which to build from...

Sean Schiebout - Mechanical Engineer - Evoqua Water Technologies

I am new to the RO field - very informative... Excellent.

Joseph Hufnagle III - Field Service Technician - H2O Solutions, Inc.

Excellent course. Have been in this industry for 10 years and still picking up valuable information.

Ken Stockton - Service Manager - H2O Solutions, Inc.

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

Landon Wilson - Chemical Technician - Xcel Energy

The lesson in the plant was an immersive experience. The overall course was wonderful.

Samai Seon - N/A - Government of Bermuda