

# Cost Optimization of RO/NF Water Treatment



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Courtesy: Salt River Project



Orange County



Tampa Bay Water

## WHERE & WHEN

For a list of where and when this seminar is being presented, click [here](#).  
This seminar can also be presented [at your facility](#).

## DAILY SCHEDULE

8:00 a.m. - 11:30 a.m.

Lunch Break

12:30 p.m. - 5:00 p.m.

## WHO SHOULD ATTEND

Anyone responsible for ensuring the least cost for producing water from RO/NF units at any stage including design, startup, operation, maintenance, management and technical service. This includes:

- Lead operators
- Operations managers
- Results engineers
- Service technicians
- Others

## WHY YOU SHOULD ATTEND

Especially in today's economy it is essential that plant personnel operate their current process equipment in the most efficient way as possible. Reducing the amount of chemical injections, element replacement, downtime, and chemical cleanings will save a plant money. By incorporating what is learned during this seminar, you can save money many times over the cost of attending this seminar in just the first year.

**You can't afford NOT to attend this seminar!**

## WHAT YOU'LL RECEIVE

16 hrs of easy-to-understand training on how to optimize the cost of RO water treatment  
A highly illustrated workbook  
Break refreshments



## INSTRUCTORS



David is the author of over 150 published articles on membrane water treatment, has developed and administers a 4,000 page correspondence training program on advanced water treatment, and has created and administers on-campus Associate Degree in Advanced Water Treatment programs at four different locations in the United States. David is the President of David H. Paul, Inc. (DHP), an advanced water treatment training and consulting firm located in the USA. DHP has trained over 16,000 water treatment professionals worldwide since 1988.



Bill Dees provides water treatment training and consulting services for David H. Paul, Inc. (DHP). He has over 20 years of design, installation, operation, maintenance, troubleshooting, training and consulting experience of water treatment systems including membrane, ion exchange, pretreatment and post-treatment equipment. Bill is also the Technical Services Manager for DHP, responsible for membrane module autopsies and consulting. Bill holds an Associate of Applied Science Degree in Industrial Water Treatment from San Juan College, DHP's first on-campus, college degree program.

## OVERVIEW OF TOPICS

- How to evaluate and implement the lowest cost for chemical usage
  - Chlorination/Dechlorination agents
  - Acid/Caustic
  - Antiscalant
  - Coagulants/flocculants
  - Sodium chloride (softener regenerations)
- How to reduce RO unit downtime and membrane element replacement rate
  - Scaling control
  - Fouling/Biofouling control
  - Chemical attack control
  - Non-Oxidizing biocide injection
  - Element autopsy
  - Effective chemical cleanings
- How to reduce chemical cleanings and their cost
  - Cleaning at an early stage
  - Effective chemical cleaning procedures
  - Effective chemicals
  - Cleaning until no more changes are seen

## WHAT YOU'LL LEARN

Everything you need to know to identify and implement many cost-cutting methods, allowing you to operate your system at the lowest cost