

IDA Academy Course
“Design and Process of Desalination Plants”
July, 2018

Half-day Course

Outline

08.00 – 9.15

Intakes and Pretreatment for SWRO Desalination Plants

- Alternative Intake Systems -Application and Design Considerations
 - Subsurface Intakes
 - Open Intakes
- Selection of Optimum Intake Type and Configuration

- Alternative Pretreatment Systems - Application and Design Considerations
 - Sedimentation and DAF Clarification
 - Granular Media Filtration
 - Membrane Filtration
- Selection of Optimum Pretreatment System Type and Configuration

09.15 – 10.15

Application of Reverse Osmosis for Membrane Seawater Desalination

- Alternative RO Systems – Application and Design Configurations
 - Single-and Multi-pass SWRO Systems
 - Novel RO System Configurations for Performance Optimization
- Selection of Optimum SWRO System Type and Configuration

10.15 – 10.30 – **Coffee Break**

10.30 – 11.00

Concentrate Management

- Concentrate Management Alternatives – Application and Design Configurations
 - Subsurface and Near-shore Discharges

- Offshore Outfalls
- Collocated Desalination and WWTP or Power Plant Discharges
- Selection of Optimum Discharge System Type and Configuration

11.00 – 11.45

Desalination Plant Case Studies

- 100 MLD Tampa Bay SWRO Desalination Plant - USA
- 200 MLD Carlsbad SWRO Plant - USA

11.45 – 12.00

Questions & Answers