

Agenda

Presented by Patrick K. Cole, PE, CME, CWPM

Public Water Supply Systems: An Introduction

- What is a 'public water system'?
- Definitions – Community vs. non-Community, transient vs. non-transient
- Basic objectives: quantity and quality
- Defining a PWS vs. private water or grey water systems
- Calculating demand: domestic flows and fire suppression
- Typical sources of raw water
- Format of major infrastructure: source, treatment, pumping, distribution, storage, services
- Sizing and redundancy: A discussion of firm capacity regulations and operational intent

The Regulatory Framework: Federal Safe Drinking Water Act and State-Level Amendments

- Reviewing intent: Standards for development of water quality standards
- The Safe Drinking Water Act
- Review of federal rule-making's:
 - The Surface Water Treatment Rule, amendments, and related rules
 - The Groundwater Treatment Rule
 - Distribution-related rules (DBP's, LCR, TCR)
 - Secondary contaminants
- New Jersey state regulations
 - NJ Safe Drinking Water Act – NJSA 58:12A-1
 - NJ Safe Drinking Water Act rules – NJAC 7:10
 - Water Supply Management Act rules – NJSA 58:1A-1
 - Water Supply Allocation rules – NJAC 7:19
 - Water Quality Accountability Act – NJSA 58:31-1
 - NJEIT / Infrastructure bank – funding framework

Sources and Treatment

- Evaluating water sources: Quantity, quality, and reliability
- Design approach – Surface water treatment processes
- Design approach – Groundwater treatment processes
- Evaluating treatment option – Three case studies
 - Water supply for a retail commercial property
 - Water supply for a small suburban municipality
 - Water supply for a large urban municipality

Transmission, Distribution, and Storage

- Design constraints: Flow, pressure, water age
- Distribution system water quality considerations:
 - Balancing disinfection with chronic contaminants
- Pipe materials, sizing, maintenance
- Distribution storage – Sizing, materials, formats, maintenance

Compliance Reporting and Trending Issues

- Review of typical compliance and reporting requirements
- Review of some common failure mechanisms
- Case study discussion: Flint, Michigan
- Emerging contaminants

Public Water Supply Systems
Secaucus, NJ - Thursday, August 30, 2018



Halfmoon Education Inc.
PO Box 278
Altoona, WI 54720-0278

NON-PROFIT
U.S. POSTAGE PAID
EAU CLAIRE, WI
PERMIT NO. 2016

Learning Objectives

You'll be able to:

- Explain** what a public water supply system is and define its basic objectives.
- Understand** the Federal Safe Drinking Water Act and New Jersey regulations.
- Evaluate** water treatment options using case studies of a commercial property, a small suburban municipality, and a large urban municipality.
- Learn** how to handle transmission and storage system design constraints due to flow, pressure and water age.
- Discuss** emerging contaminants and review a case study of Flint, Michigan.



Public Water Supply Systems

Secaucus, NJ - Thursday, August 30, 2018



- Receive** an introduction to public water supply systems
- Consider** the regulatory framework: Federal Safe Drinking Water Act and state regulations
- Examine** water sources and compare treatment options
- Learn** about water transmission, distribution and storage
- Discuss** compliance reporting and trending issues

Continuing Education Credits

Professional Engineers
6.5 CPC Credits



Faculty

Patrick K. Cole, PE, CME, CWPM is the NJ Water Department Manager for the consulting firm H2M Architects + Engineers, where his projects serve all aspects of water supply and distribution, in addition to wastewater collections and treatment, for a range of public and private clients. Mr. Cole holds a bachelor’s degree in Mechanical Engineering from the University of Delaware, and a masters degree in Civil & Environmental Engineering from Rutgers University. An active industry participant, Mr. Cole serves currently as a trustee of the American Water Works Association (AWWA) New Jersey Section, with a past trusteeship in the Association-level AWWA Distribution and Plant Operations Division. Mr. Cole is a co-author of the upcoming *AWWA Manual of Practice M64 (“Aeration and Air Stripping”)*. Additionally, Mr. Cole maintains memberships in the Water Environment Federation, the Association of Environmental Authorities of NJ, and the North Jersey Water Conference. Mr. Cole is a certified municipal engineer and a certified public works manager, and he holds a professional engineer’s certification in the States of New Jersey, New York, Pennsylvania, Maryland, and Connecticut.

Seminar Information

Holiday Inn Secaucus Meadowlands 300 Plaza Drive Secaucus, NJ 07094 (201) 348-2000	Registration 8:00 - 8:30 am Morning Session 8:30 - 11:45 am	Lunch (On your own) 11:45 am - 12:45 pm Afternoon Session 12:45 - 4:30 pm
--	--	--

Tuition
\$279 for individual registration
\$259 for three or more simultaneous registrations.

Each registration includes a complementary continental breakfast and printed seminar manual.

Receive a reduced tuition rate of \$101 by registering to be our on-site coordinator for the day. For availability and job description, please visit www.halfmoonseminars.org.

How to Register

- Visit us online at www.halfmoonseminars.org
- Mail-in or fax the attached form to 715-835-6066
- Call customer service at 715-835-5900

Cancellations: Cancel at least 48 hours before the start of the seminar (CDT), and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another seminar or the CD/manual package. You may also send another person to take your place.

Additional Learning

Webinar Series

Septic Systems Series

- **Onsite Wastewater Treatment Technologies, Regulations and Contaminant Removal**
Thurs., July 19, 2018, 11:00 AM - 12:30 PM CDT
- **Evaluating Sites, Setting Treatment Goals and System Design**
Thurs., July 19, 2018, 1:00 - 2:30 PM CDT
- **Alternative and Sustainable Treatment Technologies**
Fri., July 20, 2018, 11:00 AM - 12:30 PM CDT
- **Management Programs for Onsite Wastewater Treatment Systems**
Fri., July 20, 2018, 1:00 - 2:30 PM CDT

For more information
and other online learning opportunities visit:
www.halfmoonseminars.org/webinars/

Continuing Education Credit Information

This seminar is open to the public and offers 6.5 continuing professional competency credits/PDHs to professional engineers in New Jersey. HalfMoon Education is an approved continuing education provider for New Jersey engineers (Approval No. 24GP00000700).

Professional engineers seeking continuing education credit in other states will be able to apply the hours earned at this seminar, in most cases. Refer to specific state rules to determine eligibility.

Attendance will be monitored, and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Can’t Attend? Order the CD/Manual Package:
An audio recording of this seminar is available for \$289 (including shipping). Allow five weeks from the seminar date for delivery. Please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

National Electrical Code

- **National Electrical Code, Part I**
Tues., July 24, 2018, 11:00 AM - 3:30 PM CDT
- **National Electrical Code, Part II**
Weds., July 25, 2018, 11:00 AM - 3:30 PM CDT
- **National Electrical Code, Part III**
Thurs., July 26, 2018, 11:00 AM - 3:30 PM CDT

Retaining Walls and Slope Stabilization

- **Retaining Wall Basics**
Thurs., July 26, 2018, 11:00 AM - 12:00 PM CDT
- **Geosynthetics and Retaining Walls**
Thurs., July 26, 2018, 12:30 - 3:00 PM CDT
- **Slope Stability and Geosynthetics**
Fri., July 27, 2018, 11:00 AM - 12:30 PM CDT
- **Slope and Retaining Wall Failures, Fixes and Prevention**
Fri., July 27, 2018, 1:00 - 3:00 PM CDT

Registration

Public Water Supply Systems

Secaucus, NJ - Thursday, August 30, 2018

How to Register	Registrant Information
Online: www.halfmoonseminars.org	Name: _____
	Company/Firm: _____
	Address: _____
	City: _____ State: _____ Zip _____
	Occupation: _____
	Email: _____
	Phone: _____
	Additional Registrants:
	Name: _____
	Occupation: _____
	Email: _____
	Phone: _____
	Name: _____
	Occupation: _____
	Email: _____
	Phone: _____
	Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold or transferred.
	() I need special accommodations. Please contact me.

Tuition
() I will be attending the live seminar. Single Registrant - \$279.00 . Three or more registrants from the same company registering at the same time - \$259.00 each.
() I am not attending. Please send me the CD manual package for \$289.00 . (S&H included. Please allow five weeks from seminar date for delivery)
Checks: Make payable to HalfMoon Education Inc.
Credit Card: <i>Mastercard, Visa, American Express, or Discover</i>
Credit Card Number: _____
Expiration Date: _____ CVV2 Code: _____
Cardholder Name: _____
Billing Address: _____
City: _____ State: _____ Zip: _____
Signature: _____
Email: _____