

Pumping, Energy and the Water-Energy Nexus in Water and Wastewater Systems

A New Course Presented by the New Jersey Water Association and PSI Process & Equipment

Description:

Water and wastewater utilities face ever-increasing requirements with regard to regulations, resiliency and sustainability. These increasing requirements, without the resources to support them, put a strain not only on capital and operating budgets, but also on system personnel.

The water/wastewater industry has identified energy management as a means of improving efficiency, maintaining reliability and reducing costs. This is based on what is known as the water-energy nexus- meaning that every gallon of water used must be extracted, conveyed, treated, and distributed to customers, and then collected, treated and discharged as wastewater effluent. As water supplies are depleted and treatment requirements increase, the amount of energy required increases dramatically.

This presentation will describe the role of energy in the everyday operation and maintenance of pumping, collection, distribution, and treatment systems. This will give water and wastewater operations and maintenance professionals a practical understanding as to where and how much energy is used in various types of systems, how operations and maintenance affect energy usage, and how operations and maintenance professionals can quantify, analyze and optimize usage of energy in any system to reduce costs and improve system reliability or when contemplating modifications to their facilities.

Agenda

8:00 – 8:30

Sign-In

8:30 – 1:00

Hydraulics and Pumping, Transmission/Distribution, Collection and Treatment

D. Silverman

Disinfection

D. Rehse

Residuals/ Resource Recovery

D. Silverman

Controls/Data Management

D.Rehse

Water Reuse

S. Paratore

1:00

Dismissal

***There will be two 15 minute breaks**

Instructors:

David J. Silverman, P.E., - PSI Process and Equipment, Applications Engineer- BE Civil Engineering, ME Civil Engineering, the Cooper Union, NYC- 25 Years' Experience in design, construction, operation, modification and management of water and wastewater projects.

Denis O. Rehse- PSI Process and Equipment, Process Sales- BS Electrical Engineering, Virginia Tech with two decades of experience in microwave, microelectronics and telecommunications technology as well as water and wastewater pumping and treatment.

Sean Paratore- PSI Process and Equipment, Pump Applications Engineer- BS Mechanical Engineering, Virginia Tech, two years' experience in pump station and hydraulic design.

Accreditation:

4.0 Training Contact Hours for NJ-Licensed Water and Wastewater Operators. TCH Course# 04-011702-30

4.0 Hours toward license renewal for NJ Certified Public Works Managers (Technical). Course# DLGS-NJWA-111

Dates and Locations:

January 18, 2017 – Hightstown Fire House – 140 North Main Street, Hightstown, Mercer County

January 24, 2017 – Brooklawn Senior Center, Second Street, Brooklawn, Camden County

February 1, 2017 – Wharton American Legion – 99 North Main Street, Wharton, Morris County

Registration: This course is free of charge. Registration is required and is available on-line at www.njwater.org

New Jersey Water Association, 54 Main Street, Waretown, NJ, 08758-2219.

Phone: 609-242-7111, Fax: 609-242-7112