

## WORKSHOP DETAILS

The following PA DEP-approved workshops are being offered during the Keystone Water Conference on August 24-26 at the Penn Stater Conference Center Hotel in State College, PA.

You may add these workshops to your Conference registration, or you may register for individual workshop(s) separately. You must register in advance. All workshops are limited to 40 attendees, unless otherwise noted. End times for each workshop may be slightly different, depending on the length of time instructors give for breaks.

### Monday, 8:45am-4:30pm

#### Maintenance Management Workshop for Water Treatment and Pumping Facilities

This course is PA DEP approved for **6.0 Drinking Water & Wastewater Contact Hours**. Course ID 64.

*Instructor: Ray Delo, Retired from PA American Water*

The following topics will be discussed during this course: define maintenance management and mission; discuss benefits of maintenance management; rate individual's maintenance efforts; develop strategic plans for maintenance; understand different equipment failure patterns; reactive, preventive and predictive maintenance; define operator performance maintenance; define total production maintenance; reliability-centered maintenance methods.

### Monday, 8:45am-4:30pm

#### Wastewater Exam Study Prep Course

This class consists of two courses PA DEP approved for a total of **6.0 Wastewater Hours**. You must attend both parts to receive full credit.

Wastewater General and Activated Sludge Exam Prep – Course ID 7995; and Wastewater Exam Math Prep – Course ID 8377.

*Instructor: Walter Higgins, US EPA*

This course was developed to assist individuals who are taking the wastewater exams. The first part is a brief overview. Students who have been studying for the exams will use this course as a refresher. Students who have not been preparing for an exam can use this course to give them an idea of what they know and what they need to study. The second part will cover math. At the end of this course, students will be able to: choose the correct formula to be used for each type of math problem; recognize and differentiate the data types or units in each problem (i.e.. lbs vs ft<sup>3</sup>); use the taught problem-solving procedure to answer the problems by following a 6-step process; solve rate, loading, F/M, and volume problems.

### Tuesday, 8:00-11:00am

#### Personal Protective Equipment

This course is PA DEP approved for **2.0 Drinking Water & Wastewater Contact Hours**. Course ID 6179.

*Instructor: Kelly Kramer, RETTEW Associates*

This class is applicable to any employee or employer who may be required to work in environments with hazards that can only be mitigated through the use of Personal Protective Equipment (PPE). An overview of the role of PPE in the workplace and the various requirements that govern its use and applicability will be discussed. Common PPE usage and limitations thereof are addressed. Topics include: hazard control methods; hazard assessment; PPE selection and limitations; welding PPE; face shields; clothing requirements; hazard avoidance; respiratory protective equipment; selection; assigned protection factors; medical evaluations; usage limitations; maintenance; breathing air; training/program evaluation; fall protection; personal fall arrest systems; variants; harness/lanyard requirements; storage; gloves; chemical exposure potential; chemical protection; training; paying for PPE; and employer vs. employee responsibility

### Tuesday, 8:00am-4:30pm

#### Wastewater Professionals Guide to Online Process Instrumentation for Biological Nutrient Removal Activated Sludge Monitoring

This course is PA DEP approved for **6.0 wastewater contact hours**. Course ID 6423.

*Instructors: Benjamin Barker and David Fraley, both with YSI, a Xylem Brand*

Nutrient removal and sustainability are two of the biggest drivers in the wastewater industry today. Both demand increased automation of the activated sludge process implemented using feedback from online sensors in order to be achieved. Technology has stepped up to fill the need with a new generation of online sensors capable of monitoring at a frequency, accuracy, and reliability suitable for feedback control. However, even the best designed sensor cannot fulfill its full capabilities without proper training of the end user. Unfortunately, Operators are often left on their own to figure out how to operate and maintain these highly technical devices after the salesman or the Contractor leaves causing reduced performance and lifetime. This workshop provides participants essential information on the selection and care of online instrumentation for monitoring and control of biological nutrient removal (BNR) activated sludge. The main objective is to teach participants good practices that are essential to successful process monitoring.

### Tuesday, 1:00-4:30pm

#### Valve Workshop

This course is PA DEP approved for **3.0 Drinking Water & Wastewater Contact Hours**. Course ID 5348.

*Instructor: Tim Trout, Ferguson Waterworks*

Valves are used by the water and wastewater communities. The purpose of this course is to educate the importance of proper valve function, maintenance and repair for water and wastewater operators. The proper application, performance and technical specifications for gate, butterfly and check valves will be discussed.

### Wednesday, 8:00-11:30am

#### Laboratory Ethics

This course is PA DEP approved for **3.0 Drinking Water & Wastewater Contact Hours**. Course ID 7364.

*Instructor: Larissa Hoover, Cranberry Township*

This course provides detailed information for laboratory technicians and supervisors on the topic of lab ethics, based on Chapter 252. This course is for employees who need ethics refresher training for the laboratory every 14 months. The course discusses common definitions, state requirements, consequences, and prevention of unethical behavior, conflict of interest, ethics policies and agreements, data control, and legal defensibility, as well as red flags and data reporting.