

Monday, March 18, 2024

5:30 pm - 8:00 pm	Welcome Dinner with Tommy Wareham "The Piano Man"
8:00 pm	PRWA Bingo!

Tuesday, March 19, 2024

		DEP Course ID	Trainer
9:00 am - 12:30 pm	1-01 Chemical Feed Math Refresher (DW & WW)	7497	Industry Specialist - PRWA
	1-02 To be added upon PA DEP Approval		Industry Specialist
	1-04 Common-Sense Practices of a Well Run Water & Wastewater System (DW & WW)	4056	C. Michael Harrington - <i>Industry Specialist</i>
	1-05 Process Instrumentation and Verification for Water & Wastewater I - PART 1 of 2 <i>(*Must attend both for CH)</i> (DW & WW)	4125	Ryan Morasse - <i>Hach Company</i>
	1-06 To be added upon PA DEP Approval		Industry Specialist
	1-07 Subsurface Utility Engineering and Crossbore Safety (DW & WW)	8935	William D. Friedah, P.E. - <i>USG, Inc.</i>
	1-09 Health and Safety Considerations for Water and Wastewater Operators (DW & WW)	4042	William Kasper - <i>Industry Specialist</i>
	1-10 To be added upon PA DEP Approval		Industry Specialist
	1-12 Introduction to High Pressure Water Cleaning (Jetting) in Collection System Pipes (WW)	5808	Walter Jenness - <i>Tri-State Environ. Svcs, LLC</i>
	1-13 Aerobic Digesters - An Operator's Guide from Design through Operation (WW)	7802	Chris Hannum, P.E. - <i>Entech Engineering</i>
	1-14 Activated Sludge - A View beneath the Surface - Microbiology (WW)	8460	Steve Leach - <i>Leach Microbial Consulting</i>
	1-15 Protecting Our Waters at the Source - Stormwater Issues (DW)	7503	Colin Gardner, Kurt Wagner - <i>Stormwater Solution Source LLC, PRWA</i>
	1-16 Full Circumferential Pipe Repair Methods: on 2" to 30" Watermain Breaks, Splits, Leaks Bell Joint Repair (DW)	8830	Mark Langenhan - <i>Dresser Utility Solutions</i>
	1-17 Asset Management & Asset Maintenance for Water Systems (DW)	9330	Nick Rapagnani, Dan Frum - <i>Utility Service Co., Inc.</i>
10:00 am	Annual Business Meeting		
11:30 am - 1:30 pm	Lunch		
1:30 pm - 5:00 pm	2-01 Medical Emergency Response and Care (DW & WW)	6805	Bob Stakem, M.Ed. - <i>Penn State Health</i>
	2-02 To be added upon PA DEP Approval		Industry Specialist
	2-04 Process Instrumentation and Verification for Water & Wastewater I - PART 1 of 2 <i>(*Must attend both for CH)</i> (DW & WW)	4125	Ryan Morasse - <i>Hach Company</i>
	2-06 Manager's Roundtable (DW & WW)	1 CH	Industry Specialists - PRWA
	2-07 Valve Workshop (DW & WW)	5348	Tim Trout, Chuck Krohg, Stephen Sharps - <i>Ferguson, Mueller, Rockacy &amp; Assoc.</i>
	2-08 Circuit Rider Training: Regulatory Requirements (DW & WW)	9391	Sheryl Martin, Doug Macik - <i>PADEP</i>
	2-09 ABCs of Variable Frequency Drives (VFDs) (DW & WW)	8472	Larry Stanley, Daniel Gutierrez - <i>US ABB</i>
	2-10 Wastewater Pathogens (WW)	3564	Michael Gerardi - <i>Water Pollution Biology</i>
	2-11 Let's Clarify, Clarifiers, in Wastewater Treatment (WW)	8090	Ed Pietroski, P.E. - <i>Entech Engineering</i>
	2-12 MABRs - To be added upon PA DEP Approval		Industry Specialist
	2-13 Collection System Inspections for Failing Infrastructure (WW)	3611	William D. Friedah, P.E., Matthew Quinn - <i>Utility Services Group, Inc., Entech Eng., Inc.</i>
2-14 Filter Inspections, Optimization and Compliance (DW)	8424	Matt Seeker - <i>Water Service Professionals</i>	
2-15 PFAS Sample Collection, Preparation and Analysis (DW)	9198	Richard Stump - <i>Suburban Testing Labs</i>	
2-17 Pennsylvania Geology and Aquifer Characteristics (DW)	6814	Mark Stephens P.G. - <i>Industry Specialist</i>	
5:00 pm - 6:30 pm	Exhibit Hall Open		
6:30 pm - 9:00 pm	Meet & Greet Party at Champ's - Transportation provided to and from sponsored hotels		

\*Courses worth 3 PADEP Contact Hours, unless otherwise noted.

**Monday**

Welcome Dinner  
with Tommy Wareham,  
"The Piano Man"  
5:30 PM - 8:00 PM



We start off the conference with an evening of refreshments, a light dinner, and music by Tommy Wareham, "The Piano Man".

**PRWA Bingo!**

8:00 PM

Sponsored by: *National Water Specialties Company*



Come try your luck at Bingo, Rural Water Style! Prizes will be given out to the lucky winners!

**Tuesday**

Meet & Greet Party @ Champ's  
6:30 PM - 9:00 PM

Sponsored by:  
*Gwin, Dobson & Foreman*



Join us for great food and entertainment at one of State College's finest establishments.

We offer transportation to and from all sponsored hotels.

Wednesday, March 20, 2024		DEP Course ID	Trainer	
7:00 am - 8:45 am	Continental Breakfast			
8:00 am - 11:30 am	3-01 Basic Laboratory Skills Short Course - Hach (DW & WW)	6180	Terry Smith - <i>Hach Company</i>	
	3-02 Medical Emergency Response and Care (DW & WW)	6805	Bob Stakem, M.Ed. - <i>Penn State Health</i>	
	3-03 UV Disinfection from Basics to Advanced Oxidation Processes for Drinking Water and Wastewater (DW & WW)	8112	Bree Trembly, P.E.; Norman Ammerer - <i>Nuvonic UV</i>	
	3-04 How to Prevent a Catastrophic Event at your Drinking W/WW System (DW & WW)	8035	C. Michael Harrington - <i>Industry Specialist</i>	
	3-05 Operation & Maintenance of Submersible Pumps (DW & WW)	6516	Sean Melrose, Chris Salstrom - <i>Xylem, Inc</i>	
	3-06 NFPA 70E and You; Electrical safety in the workplace (DW & WW)	8432	Adam Menko, P.E., Dan Saulnier - <i>Keystone Engineering Group, Inc.</i>	
	3-08 Skills for Successful Communication (DW & WW)	9380	Heather Somers - <i>West Virginia Rural Water Assoc.</i>	
	3-09 Manager's Roundtable (DW & WW)	1 CH	Industry Specialist	
	3-10 Chemistry 101 (DW & WW)	4077	Darrell Cates - <i>CITCO Water</i>	
	3-11 Biological Metabolic Processes and Nutrient Removal (WW)	8966	George Pearson; Howie Pearson - <i>Quorum</i>	
	3-12 Wastewater System Math Refresher (WW)	7499	Industry Specialist - <i>PRWA</i>	
	3-13 Inflow & Infiltration - To be added upon PA DEP Approval		Industry Specialist	
	3-14 Tracking Non-Revenue Water with Audit Software (DW)	7422	George Kunkel, P.E. - <i>Kunkel Water Efficiency Consulting</i>	
	3-15 Service Valve Renewal, and Service or Mainline Tapping (DW)	9155	Mark Langenhan - <i>Dresser Utility Solutions</i>	
	3-16 Groundwater Supply Development in Pennsylvania (DW)	8466	Chris Finton, P.G. - <i>ARM Group LLC</i>	
	3-17 DW Exam Review Part 1 of 4: General Exam (DW)	1 CH	Industry Specialist - <i>PRWA</i>	
	3-18 WW Exam Review - General and Activated Sludge Part 1 of 4 (WW)	1 CH	Walter Higgins, Jeremy Miller - <i>USEPA; PADEP</i>	
	10:00 am	PaWARN Meeting		
11:30 am - 1:30 pm	Lunch - Exhibit Hall Open			
1:30 pm - 5:00 pm	4-01 Dealing with Angry People and Stress and Worker Safety (DW & WW)	7420	Joe Zinobile, CSP - <i>PA L&amp;I</i>	
	4-02 To be added upon PA DEP Approval		Industry Specialist	
	4-03 Public Communication in the Instant Information Age - Lead, Copper (LCR) and PFAS (DW & WW)	9205	Mike McGill - <i>WaterPIO</i>	
	4-05 Pressure Gauges and Audits at Water and Wastewater Plants (DW & WW)	8465	Ravi Jethra - <i>WIKA USA</i>	
	4-06 Not All It's Cracked Up to Be - Our Failing Pipe Infrastructure (DW & WW)	7194	Bill Friedah, P.E., Matthew Quinn - <i>Utility Services Group, Inc., Entech Engineering</i>	
	4-07 Tanks - All Mixed Up? - Mixing, Rehab and Inspection for Water and Wastewater (DW & WW)	8420	Christine Gunsallus - <i>Entech Engineering</i>	
	4-08 Energy Management - To be added upon PA DEP Approval		Industry Specialist	
	4-09 To be added upon PA DEP Approval		Industry Specialist	
	4-10 Manager's Roundtable (DW & WW)	1 CH	Industry Specialists - <i>PRWA</i>	
	4-12 Science of Pipe Cleaning: Levels Leading to Tier III (WW)	8968	Dan Story - <i>KEG / A&amp;H Equipment Co. Inc.</i>	
	4-13 Science of Manhole Inspections (WW)	8471	J. Scott Shipe - <i>Scott Infrastructure Science</i>	
	4-14 Water Loss Management (DW)	3621	Ian Moore, Brendan Line - <i>Exeter Supply</i>	
	4-15 Understanding the ISO Fire Suppression Rating Schedule- Water Supply Evaluation (DW)	7754	William Bekanich, CFPS; Tyler Olsen, MA CFPS FO IV - <i>ISO Verisk</i>	
	4-16 - Source Water Protection - Timber Management (DW)	5846	Kevin Yoder, Mike Wolf, Kenny Kane - <i>The Nature Conservancy, Appalachian Forest Consultants, LLC, Generations Forestry</i>	
	4-17 DW Exam Review Part 2 of 4 - Math Concepts (DW)	1 CH	Industry Specialist - <i>PRWA</i>	
	4-18 WW Exam Review - General and Activated Sludge Part 2 of 4 (WW)	1 CH	Walter Higgins, Jeremy Miller - <i>USEPA; PADEP</i>	
	5:00 pm - 8:00 pm	<b>Exhibit Hall Extravaganza with a chance to win a Disney Dream Vacation Giveaway</b>		
	7:30 PM	<b>Golf Simulator</b>		
8:30 PM	<b>Cornhole Tournament with Music by Biscuit Jam</b>			

\*Courses worth 3 PADEP Contact Hours, unless otherwise noted.

### Wednesday

**Exhibit Hall Extravaganza & Disney Dream Vacation Giveaway**

5:00 PM - 8:00 PM

Sponsored by:

*Exeter Supply & Star Pipe*



Come eat a delicious meal and visit with over 128 exhibitors. Don't miss your chance to win a Disney Dream Vacation!

### Golf Simulator

7:30 PM

Have a killer golf swing? Prove it on a state-of-the-art driving simulator! Take a swing at winning some great prizes!

### Cornhole Tournament

8:30 PM

Sponsored by: *A&H Equipment*



Come test your skills at this tailgate favorite while listening to live music by *Biscuit Jam*.

Thursday, March 21, 2024		DEP Course ID	Trainer
7:00 am - 8:45 am	Continental Breakfast		
8:00 am - 11:30 am	5-01 Trenching and Safety Overview (DW & WW)	7816	Industry Specialist - PRWA
	5-02 Flagger Training (DW & WW)	6527	Industry Specialist - PRWA
	5-03 To be added upon PA DEP Approval		Industry Specialist
	5-07 Aging Infrastructure - Repairs (DW & WW)	8713	Dave Rockacy, Stephen Sharps - <i>Rockacy &amp; Associates</i>
	5-08 Manager's Roundtable (DW & WW)	1 CH	Industry Specialist
	5-09 Basic Math Refresher (DW & WW)	5757	Brian Sekula, P.E. - <i>Industry Specialist</i>
	5-10 Collection System Troubleshooting (WW)	1334	Industry Specialist - PRWA
	5-11 To be added upon PA DEP Approval		Industry Specialist
	5-12 Wastewater Lab Skills - Sampling and Safety (WW)	7428	Industry Specialist - PRWA
	5-13 Application and Operation of Automatic Control Valves for Water Distribution Systems (DW)	5742	Jim Graber, Andrew Furman - <i>Cla-Val</i>
5-14 Phosphorus - A Holistic Approach to Corrosion Control and Water Quality (DW)	9190	Matt Tyrrell, Dave Linville - <i>AquaSmart, Inc.</i>	
5-15 Reduction of Non-Revenue and Un-Accounted for Water thru Leak Detection and Metering (DW)	5800	Tim Trout, Justin Kanada, Ken Dahlinger - <i>Ferguson Waterworks, LLC, Badger Meter</i>	
5-16 Electrical Hazards: Metallic Water Service Lines and Mains (DW)	7418	Dale Skinner - <i>Industry Specialist</i>	
5-17 DW Exam Review Part 3 of 4 - Distribution Exam (DW)	1 CH	Industry Specialist - PRWA	
5-18 WW Exam Review - General and Activated Sludge Part 3 of 4 (WW)	1 CH	Walter Higgins, Jeremy Miller - <i>USEPA; PADEP</i>	
11:30 am - 1:30 pm	Lunch - Exhibit Hall Open		
12:00 pm	AWOP Awards		
1:30 pm - 3:45 pm <i>These Classes are Approved for 2 Contact Hours</i>	6-03 PFAS Management: What to do BEFORE you do it (DW & WW)	9224	Phil Farina, Mike Rizzo - <i>Clear Creek Systems, Inc.</i>
	6-04 High Precision Global Navigation Satellite Systems (GNSS) Data Collection - Key Ingredients for Mapping Success (DW & WW)	8717	Jake Holbert, Sally Holbert - <i>Land Logics Group</i>
	6-05 Fundamentals of Ductile Iron Fittings (DW & WW)	9068	Michael Chun; Jack Lewis - <i>Tyler Union</i>
	6-06 PVC Pipe and Fittings (DW & WW)	9135	Richard St-Aubin, P.E. - <i>IPEX USA</i>
	6-07 Manager's Roundtable (DW & WW)	1 CH	Industry Specialists - PRWA
	6-08 Food/Microorganism Ratio (F/M) And Mean Cell Residence Time (MCRT) (classroom) (WW)	8549	Industry Specialist - PRWA
	6-09 BNR - to be added upon PA DEP Approval (WW)		Industry Specialist
	6-10 To be added upon PA DEP Approval		Industry Specialist
	6-11 Hydrants Installation, Maintenance and Repair short course (DW)	5948	Ryan Caron, Bryan Elford, Tim Storch - <i>Kennedy Valve and M&amp;H Valve</i>
	6-12 Technical Workings of Ultrasonic Water Meters (DW)	8832	Sharon DelSignore - <i>EAP Industries, Inc.</i>
1:30 pm - 5:00 pm	6-13 Basics of Centrifugal Pumps and Hydraulics (DW & WW)	9131	Brian Sekula, P.E. - <i>Industry Specialist</i>
	6-14 Disinfection Math Review - 3 Hr (DW & WW)	8403	Deb Rotz - <i>Industry Specialist</i>
	6-15 WW Biology - to be added upon PA DEP Approval (WW)		Industry Specialist
	6-16 Toxic and Combustible Gas Detection Practices (DW & WW)	8967	Steve Slavutsky - <i>Draeger, Inc / Neal Systems Inc.</i>
	6-17 DW Exam Review Part 4 of 4 - Practice Questions (DW)	1 CH	Industry Specialist - PRWA
	6-18 WW Exam Review - General and Activated Sludge Part 4 of 4 (WW)	1 CH	Walter Higgins, Jeremy Miller - <i>USEPA; PADEP</i>
3:45 pm	Ice Cream Social		

\*Courses worth 3 PADEP Contact Hours, unless otherwise noted.

## Thursday

### Ice Cream Social

3:45 PM

Sponsored by:

*Century Engineering*



To wrap up the conference join us for an ice cream social. It will be a great time to wind down and enjoy some camaraderie before hitting the road!

## Reminder:

**Hotel Room Blocks now open on Monday Evening!**

### Questions?

Call: (800) 653-7792

Email: [prwa@prwa.com](mailto:prwa@prwa.com)

Online: [www.prwa.com/conference](http://www.prwa.com/conference)

## Tuesday Morning 3 Hour Classes – 9 am to 12:30 pm

*\*Courses worth 3 PADEP Contact Hours, unless otherwise noted.*

- 1-01 **Chemical Feed Math Refresher:** Operators are required to complete various math calculations to assist in operations within a treatment facility. This course will review chemical feed calculations. *Trainer: Industry Specialist - PRWA Earn 3 DW & WW CH*
- 1-04 **Common-Sense Practices of a Well Run Water & Wastewater System:** This program looks at commonly misunderstood key elements to achieve a well-run operation. The first 2 key elements relate to measurement parameters, while the other 3 key elements are operational practices, most often ignored in the chemical feed process. *Trainer: C. Michael Harrington - Industry Specialist Earn 3 DW & WW CH*
- 1-05 **Process Instrumentation and Verification for Water & Wastewater I - PART 1 of 2 (\*Must attend both for CH):** This hands-on course is designed to provide an understanding of the operation, maintenance, and verification of process instrumentation in a drinking water facility. Topics will include chlorine, turbidity, pH, and process controllers. *Trainer: Ryan Morasse - Hach Company Earn 6 DW & WW CH*
- 1-07 **Subsurface Utility Engineering and Crossbore Safety:** Trenchless technology has brought utility damage and cross bores to the forefront. This course covers Subsurface Utility Engineering (SUE) tools, advantages and disadvantages, and when to use. An appropriate use of SUE disciplines can avoid many utility conflicts, cost over-runs, schedule impacts, and safety concerns. *Trainer: William D. Friedah, P.E. - USG, Inc. Earn 3 DW & WW CH*
- 1-09 **Health and Safety Considerations for Water and Wastewater Operators:** Safety is one of the most overlooked aspects of being a water/wastewater operator. This class is a general overview of the safety issues including: an overview to OSHA, scaffolding, fall protection, hazard communication, excavation safety, confined space entry rules, electrical safety and lock out/tag out requirements. *Trainer: William Kasper - Industry Specialist Earn 3 DW & WW CH*
- 1-12 **Introduction to High Pressure Water Cleaning (Jetting) in Collection System Pipes:** This class covers equipment and various techniques for jetting collection system lines of all types. Equipment covered will be pumps, nozzles, and hoses as well as the use of pressure and flow in the lines. Includes information on cleaning 6 inch to 48 inch pipe. *Trainer: Walter Jenness - Tri State Environmental Services LLC Earn 3 WW CH*
- 1-13 **Aerobic Digesters - An Operator's Guide from Design through Operation:** This class covers the terminology, options, and basic design considerations of aerobic digesters so operators can achieve better results during the construction or rehab of digesters in the future. *Trainer: Chris Hannum, P.E. - Entech Engineering Earn 3 WW CH*
- 1-14 **Activated Sludge-A view beneath the Surface - Microbiology:** We will explore the interaction between bacteria, enzymes, and higher life forms found in wastewater plants worldwide. The focus will be on the four key factors of any biomass; floc, filaments, higher life forms, and the bulk water (what we discharge). *Trainer: Steve Leach - Leach Microbial Consulting Earn 3 WW CH*

- 1-15 **Protecting Our Waters at the Source - Stormwater Issues:** Understanding the inter-relationship between stormwater controls, source water area management and drinking and wastewater treatment are critical to successful water management for your community. This course covers Best Management Practices (BMPs) common to SWP and stormwater management and how those practices can improve drinking and wastewater treatment. *Trainer: Colin Gardner, Kurt Wagner - Stormwater Solution Source, LLC, PRWA Earn 3 DW CH*

- 1-16 **Full Circumferential Pipe Repair Methods: on 2 to 30" Watermain Breaks, Splits, Leaks, Bell Joint Repair.:** Repairs are commonly performed with a full circumferential pipe repair clamp. The process to repair various types of pipe involves assessing the damage, selecting the best repair method, and limiting interruption of service. This course covers types of products used, sizing, installation, and problems during the repair process. *Trainer: Mark Langenhan - Total Piping Solutions, Inc Earn 3 DW CH*

- 1-17 **Asset Management & Asset Maintenance for Water Systems:** Keep high-dollar, large, aging assets in service and maintained for as long as possible. What happens when they fail? Maybe we don't want to take so many risks? Risks can be passive or active. Doing nothing is a type of action. *Trainer: Nick Rapagnani, Dan Frum - Utility Service Co., Inc. Earn 3 DW CH*

## Tuesday Afternoon Classes - 1:30 pm to 5:00 pm

*\*Courses worth 3 PADEP Contact Hours, unless otherwise noted.*

- 2-01 **Medical Emergency Response and Care:** This session provides an introduction to medical and traumatic events that may occur. Operators will be exposed to different medical and traumatic events in addition to being presented with information on how to appropriately respond to these emergencies. There will be limited opportunity for hands-on practice of CPR methods. *Trainer: Bob Stakem, M.Ed. - Penn State Health Earn 3 DW & WW CH This course is also offered on Wednesday morning, Class #3-01*
- 2-04 **Process Instrumentation and Verification for Water & Wastewater I - PART 2 of 2 (\*Must attend both for CH):** See description for 1-05. *Trainer: Ryan Morasse - Hach Company Earn 6 DW & WW CH*
- 2-06 **Manager's Roundtable:** Open to all attendees. Presentations and discussions on issues relating to managing water and wastewater systems. **Earn 1 DW & WW CH**
- 2-07 **Valve Workshop:** Valves are used by the water and wastewater communities. The purpose of the course is to educate the importance of proper valve function, maintenance and repair for water and wastewater operators. We will discuss the proper applications, performance and technical specifications for gate, butterfly and check valves. *Trainer: Tim Trout, Chuck Krohg, Stephen Sharps - CPMR - Ferguson; Mueller; Rockacy and Associates Earn 3 DW & WW CH*
- 2-08 **Circuit Rider Training: Regulatory Requirements:** This course reviews the regulatory requirements of chapter 302 regarding circuit rider operators, those who operate more than one water or wastewater systems with different ownership. This regulation requires each circuit rider to develop a General Work Plan and maintain a System Specific Management Plan for all systems and locations they operate. This course will review the templates for each of these plans along with how to write effective Standard Operating Procedures. *Trainer: Sheryl*

- 2-09 ABCs of Variable Frequency Drives (VFDs):** This course will demystify VFDs, providing a better understanding as to where and why you would use them. Course covers: (1) awareness of safety considerations, (2) identification of applications that can benefit from VFDs (3) the inherent value they provide, (4) appropriate size and selection of VFDs, and (5) proper installation considerations for a successful solution. *Trainer: Larry Stanley, Daniel Gutierrez - US ABB Earn 3 DW & WW CH*
- 2-10 Wastewater Pathogens:** This course reviews the disease agents associated with wastewaters, sludges, compost, aerosols and contaminated materials. Disease agents present include viruses, bacteria, fungi, protozoa and helminths (roundworms and tapeworms). Special reviews are offered for Hepatitis viruses, HIV (AIDS virus) and West Nile Virus, Leptosporosis, Giardiasis, Cryptosporidium and roundworm and tapeworm diseases. Disease transmission, body defenses and hygiene measures are presented. *Trainer: Michael Gerardi - Water Pollution Biology Earn 3 WW CH*
- 2-11 Let's Clarify, Clarifiers, in Wastewater Treatment:** This course will help operators understand the various types of Clarifiers and how they operate as an integral part of the wastewater treatment system. Hydraulic Design Principles and Solids Loading Principles will be explained but more importantly how the Clarifier must be operated to stay within those principles will also be shown. The course will be specifically geared to making the operator understand the day to day adjustments of running a Clarifier. *Trainer: Ed Pietroski, P.E. - Entech Engineering Earn 3 WW CH*
- 2-13 Collection System Inspections for Failing Infrastructure:** How do you fix what you can't see? This course will help systems find & address the pressing problem of failing wastewater infrastructure. Includes inspection methods & tools. *Trainer: William D. Friedah, P.E., Matthew Quinn - Utility Services Group, Inc., Entech Engineering, Inc. Earn 3 WW CH*
- 2-14 Filter Inspections, Optimization and Compliance:** This course covers the background on filter technology, backwashing principles, inspection methods and what is needed to comply with the new PA requirements on filter evaluations by water systems. *Trainer: Matt Seeker - Water Service Professionals Earn 3 DW CH*
- 2-15 PFAS Sample Collection, Preparation and Analysis:** This class will provide an overview of EPA/PA DEP regulations, sampling procedures, as well as PFAS sampling and case studies of improper sampling. This class will show proper sampling to yield correct data and the effect on monitoring requirements. *Trainer: Richard Stump - Suburban Testing Labs Earn 2 DW CH*
- 2-16 Process Instrument Verification for Drinking Water - PART 2 of 2 (\*Must attend both for CH):** See description for 1-05. *Trainer: Ryan Morasse - Hach Company Earn 6 DW CH*
- 2-17 Pennsylvania Geology and Aquifer Characteristics:** This course will provide a basic understanding of the relation between geological and hydrological processes in the environment. It provides the fundamental concepts of water cycle, by explaining the movement, quality, and quantity of groundwater & its relations to contaminate fate and transport. *Trainer: Mark Stephens P.G. - Industry Specialist Earn 3 DW CH*
- 3-01 Basic Laboratory Skills Short Course - Hach:** This hands-on course is a refresher on lab skills, glassware, and basic math for analysis of samples. Topics include accuracy/precision, difference between glassware, how to use glassware for measurements, pipetting techniques, dilutions, distillations, digestions, titrations, how to make verification/ check standards from primary standards. *Trainer: Terry Smith - Hach Company Earn 3 DW & WW CH*
- 3-02 Medical Emergency Response and Care:** See class #2-01, Tuesday afternoon, for description. *Trainer: Bob Stakem, M.Ed. - Penn State Health Earn 3 DW & WW CH*
- 3-03 UV Disinfection From Basics to Advanced Oxidation Processes for Drinking Water and Wastewater:** This course will provide a technical history of Ultra-Violet system considerations for the design and operation of WTPs & WWTFs. This will cover common components, lamp technology and reactor styles. Bioassays, target organisms and validation by third parties, the chemistry of organic and inorganic foulants and cleaning techniques to optimize UV effectiveness will be covered. *Trainer: Bree Trembly, P.E.; Norman Ammerer - Nuvonic UV Earn 3 DW & WW CH*
- 3-04 How to Prevent a Catastrophic Event at your Drinking Water/ Wastewater System:** Operators and superintendents must understand that many of the common "Standard Practices" used at water and wastewater systems can lead to a potential catastrophic issue at their facilities if done improperly. This short course covers routine good operational practices that can minimize the risk of a major event at your water or wastewater system. *Trainer: C. Michael Harrington - Industry Specialist Earn 3 DW & WW CH*
- 3-05 Operation & Maintenance of Submersible Pumps:** This course will cover the operation and maintenance of submersible pumps. The course will provide knowledge of principles of operation of a submersible pump. *Trainer: Sean Melrose, Chris Salstrom - Xylem, Inc Earn 3 DW & WW CH*
- 3-06 NFPA 70E and You; Electrical safety in the workplace:** A majority of water and wastewater operators engage in electrical work daily and electrical safety must be a top priority to ensure everyone stays safe. Participants will learn to identify common electrical hazards in treatment plants, create an electrically safe working condition, and determine the proper arc flash PPE. *Trainer: Adam Menko P.E. ; Dan Saulnier - Keystone Engineering Group, Inc. Earn 3 DW & WW CH*
- 3-08 Skills of Successful Communication:** Communication in any workplace is important to ensure effective work is done. Water and Wastewater utilities also must communicate with customers and outside entities. Successful use of communication skills will assist operators, managers, and office staff to function well within the utility and outside it. *Trainer: Heather Somers - West Virginia Rural Water Association Earn 3 DW & WW CH*
- 3-09 Manager's Roundtable:** Open to all attendees. Presentations and discussions on issues relating to managing water and wastewater systems. **Earn 1 DW & WW CH**

- 3-10 Chemistry 101:** This course covers the chemistry basics that water/wastewater operators should know to perform daily operations. *Trainer: Darrell Cates - CITCO Water* Earn 3 DW & WW CH
- 3-11 Biological Metabolic Processes and Nutrient Removal:** Biological nutrient removal is vital to protecting our waterways. To accomplish it, knowledge of how the process works, the organisms involved, and the requirements to keep those organisms healthy and working properly is needed. *Trainer: George Pearson; Howie Pearson - Quorum* Earn 3 WW CH
- 3-12 Wastewater System Math Refresher:** Wastewater operators are required to complete math calculation to assist in operations. This course will review some of the math required to operate a wastewater system. *Trainer: Industry Specialist - PRWA* Earn 3 WW CH
- 3-14 Tracking Non-revenue Water with Audit Software:** This class will give attendees an understanding of the occurrence and impacts of non-revenue water (NRW) to the water utility, and the basic workings of the AWWA Free Water Audit Software. Utilities are better armed to control their NRW once they have conducted the water audit and know the cost impacts of losses. *Trainer: George Kunkel, P.E. - Kunkel Water Efficiency Consulting* Earn 3 DW CH
- 3-15 Service Valve Renewal, and Service or Mainline Tapping:** When replacing or renewing a service the proper products and methodologies must be used. This includes various tapping methods, and products. Having a working knowledge of the common issues that may occur during a tap renewal is critical toward maintaining a safe and sanitary tap of a water main. *Trainer: Mark Langenhan - Dresser Utility Solutions* Earn 3 DW CH
- 3-16 Groundwater Supply Development in Pennsylvania:** A review of the regulatory requirements pertaining to the construction and permitting of a Public groundwater supply well. Includes wells for Community and Non-Community Water Supplies and the difference in the testing and permitting required. Discussion will include the regulatory requirements of the PADEP, as well as the River Basin Commissions that have jurisdiction. *Trainer: Chris Finton, P.G. - ARM Group LLC* Earn 3 DW CH
- 3-17 DW Exam Review Part 1 of 4 - General Exam:** Drinking Water Exam Review Sessions Wed & Thursday. NO Tuesday Review sessions - use for self-study. *Trainer: Industry Specialist - PRWA* Earn 1 DW CH
- 3-18 WW Exam Review - General and Activated Sludge Part 1 of 4:** Wastewater Exam Review Sessions Wed & Thursday. NO Tuesday Review sessions - use for self-study. *Trainer: Walter Higgins, Jeremy Miller - USEPA; PADEP* Earn 1 WW CH
- Wednesday Afternoon Classes - 1:30 pm to 5:00 pm**  
*\*Courses worth 3 PADEP Contact Hours, unless otherwise noted.*
- 4-01 Dealing with Angry People and Stress and Worker Safety:** This class provides awareness of those things which may cause anger and discontentment to those whom you deal with on a daily basis and methods to defuse situations and achieve good results. Part of this class will provide understanding of the types of daily stressors functioning in a worker's life and the means to address various stressors to reduce injury and illness in the workplace. *Trainer: Joe Zinobile, CSP - PA L&I* Earn 3 DW & WW CH
- 4-03 Public Communication in the Instant Information Age - Lead, Copper (LCR) and PFAS:** Updated with the latest federal Lead/Copper Rule and PFAS communication concerns. Participants will learn how to create and implement a variety of crisis communications plans. The course will cover communications processes throughout the initial and ongoing stages of the crisis. *Trainer: Mike McGill - WaterPIO* Earn 3 DW & WW CH
- 4-05 Pressure Gauges and Audits at Water and Wastewater Plants:** This course covers pressure gauge design, function, failures, and audits (field surveys) at water/wastewater (municipal) facilities to assess the optimal operation of pressure instruments. With the data gathered, the plant operator and engineers can assess data and develop guidelines that optimize reliability, minimize failure and reduce stock inventory. *Trainer: Ravi Jethra - WIKA USA* Earn 3 DW & WW CH
- 4-06 Not All Its Cracked Up to Be - Our Failing Pipe Infrastructure:** A combination of old pipes and earlier than expected failure of newer pipes has led to a "perfect storm" in our pipe infrastructures. Estimates of pipeline replacement nationwide exceed \$1 trillion in the next decade. This course covers the history of pipes, expected lifespans and considerations for line replacement. *Trainer: Bill Friedah, P.E., Matthew Quinn - Utility Services Group, Inc., Entech Engineering* Earn 3 DW & WW CH
- 4-07 Tanks - All Mixed Up? - Mixing, Rehab and Inspection for Water and Wastewater:** Tank owners often struggle; they want to take care of their tanks, but with so many other components in their systems in need of repair they are "out of sight, out of mind," until there's a problem! Regular inspections keep small problems from becoming big, costly repairs. Methods covered include drones. Tips on rehabilitation and mixers will be reviewed. *Trainer: Christine Gunsauillus - Entech Engineering* Earn 3 DW & WW CH
- 4-10 Manager's Roundtable:** Open to all attendees. Presentations and discussions on issues relating to managing water and wastewater systems. Earn 1 DW & WW CH
- 4-12 Science of Pipe Cleaning: Levels Leading to Tier III:** This course will cover proper pipe-cleaning routines and the correct tools in underground infrastructure maintenance. Understanding of fluid mechanics and jetting equipment will help with efficient, safe, and correct cleaning. Weather permitting, the program will include a demo. Dress appropriately. *Trainer: Dan Story - KEG / A&H Equipment Co. Inc.* Earn 3 WW CH
- 4-13 Science of Manhole Inspections:** This course covers inspection of sanitary sewer manholes for an asset management inspection program and SOPs. Includes tools on how to design inspection maps, clear easements and develop a logical maintenance program for manholes. Also, working with Agencies to understand the flood plain elevations and soil types that affect the life cycle of the structures is reviewed. This course includes outdoor demos – Dress Appropriately. *Trainer: J. Scott Shipe - Scott Infrastructure Science* Earn 3 WW CH

**Schedule is subject to change.**  
 Check [www.prwa.com/conference](http://www.prwa.com/conference) for updates

- 4-14 **Water Loss Management:** Unaccounted-for water is a big issue in Pennsylvania. Not only does it waste system revenue, but it can cause serious damage. This course will provide systems with some simple ways to reduce unaccounted-for water. *Trainer: Ian Moore, Brendan Line - Exeter Supply* Earn 3 DW CH
- 4-15 **Understanding the ISO Fire Suppression Rating Schedule-Water Supply Evaluation:** This course is designed to help the student understand the impact that a water service provider has on the communities it serves as it pertains to commercial and residential property insurance. *Trainer: William Bekanich, CFPS ; Tyler Olsen, MA CFPS FO IV* Earn 3 DW CH
- 4-16 **Source Water Protection - Timber Management:** More systems are looking at their wellhead and watershed protection areas as alternative sources of revenue. This course will review timbering and related uses in source water protection areas. Topics covered include procuring a consulting forester, developing timber management plans, and climate smart and sustainable forestry. *Trainer: Kevin Yoder, Mike Wolf, Kenny Kane - The Nature Conservancy, Appalachian Forest Consultants, LLC, Generations Forestry* Earn 3 DW CH
- 4-17 **DW Exam Review Part 2 of 4 - Math Concepts:** Review for those taking the Drinking Water Exams in 2024. *Trainer: Industry Specialist - PRWA* Earn 1 DW CH
- 4-18 **WW Exam Review - General and Activated Sludge Part 2 of 4:** Review for those taking the Wastewater Exams in 2024. *Trainer: Walter Higgins, Jeremy Miller - USEPA, PADEP* Earn 1 WW CH
- Thursday Morning Classes - 8:00 am to 11:30 am**  
\*Courses worth 3 PADEP Contact Hours, unless otherwise noted.
- 5-01 **Trenching and Safety Overview:** This course covers the basics of trench safety, including regulations and standards that every trench worker should know. *Trainer: Industry Specialist - PRWA* Earn 3 DW & WW CH
- 5-02 **Flagger Training:** This class is to instruct water and wastewater operators on proper procedures and equipment for flagging, as outlined by PennDOT Publication 213. Those who successfully complete this course will receive a PennDOT Wallet Card. *Trainer: Industry Specialist - PRWA* Earn 3 DW & WW CH
- 5-07 **Aging Infrastructure - Repairs:** This course will cover current infrastructure issues and problems in both water & wastewater systems. It will focus on the decision of either repairing through methods such as linings or coatings or totally replace. If replacement will be made, can they be made by the municipal staff? Also, what are they key issues to be aware of? *Trainer: Dave Rockacy; Stephen Sharps - Rockacy and Associates* Earn 3 DW & WW CH
- 5-08 **Manager's Roundtable:** Open to all attendees. Presentations and discussions on issues relating to managing water and wastewater systems. Earn 1 DW & WW CH
- 5-09 **Basic Math Refresher:** This course provides an overview of the basic mathematical principles required to operate a water treatment plant or a wastewater treatment plant or review for an operator certification exam. *Trainer: Brian Sekula, P.E. - Industry Specialist* Earn 3 DW & WW CH
- 5-10 **Collection System Troubleshooting:** An improperly maintained collection system can add unnecessary costs to a community's wastewater customers. A collection system operator needs to know how to identify the problem areas, how to detect I & I and how to repair those problems once found. This course is designed to help collection system operators establish maintenance and troubleshooting practices and repair collection system problems, so that the system can remain in compliance and not exceed permit levels. *Trainer: Industry Specialist - PRWA* Earn 3 WW CH
- 5-12 **Wastewater Lab Skills - Sampling and Safety:** This class covers basic wastewater laboratory procedures. This class includes a review of the Clean Water Act, standard methods and sampling procedures. *Trainer: Industry Specialist - PRWA* Earn 3 WW CH
- 5-13 **Application and Operation of Automatic Control Valves For Water Distribution Systems:** This course is designed for the basic to more advanced individuals to learn how to identify and understand how a control valve works, proper start-up procedures, and introduction to live training lab with a full working variety of control valves for hands on experience in an outdoor environment. This course will instruct students on pressure reducing, pressure sustaining, relief and altitude control valves. *Trainer: Jim Graber, Andrew Furman - Cla-Val* Earn 3 DW CH
- 5-14 **Phosphorus - A Holistic Approach to Corrosion Control and Water Quality:** This course explores the relationship between corrosion control and other water quality treatment processes and the use of phosphorus-based chemical additives to address these issues holistically with an end goal of using less phosphorus. *Trainer: Matt Tyrrell, Dave Linville - AquaSmart, Inc.* Earn 3 DW CH
- 5-15 **Reduction of non revenue and un-accounted for water thru leak detection and metering:** This course will provide a student with the ability to identify and reduce both unaccounted-for and non-revenue water in their system. The course will show how this is achieved through the implementation of system-wide leak detection and metering programs. *Trainer: Tim Trout, Justin Kanada, Ken Dahlinger - Ferguson Waterworks, LLC, Badger Meter* Earn 3 DW CH
- 5-16 **Electrical Hazards: Metallic Water Service Lines and Mains:** Operations employees have experienced electrical shocks while working on metallic service lines, mains and flow meters. This course focuses on the causes of electrical hazards and the dangers of electrical shock. The course reviews protective procedures and equipment to prevent electrical shock, and the dangers of thawing metallic water pipes with high DC or AC current. *(This class ends at 12 pm) Trainer: Dale Skinner - Industry Specialist* Earn 3.5 DW CH
- 5-17 **DW Exam Review Part 3 of 4 - Distribution Exam:** Review for those taking the Drinking Water Exams in 2024. *Trainer: Industry Specialist - PRWA* Earn 1 DW CH
- 5-18 **WW Exam Review - General and Activated Sludge Part 3 of 4:** Review for those taking the Wastewater exams in 2024. *Trainer: Walter Higgins, Jeremy Miller - USEPA; PADEP* Earn 1 WW CH

## Thursday Afternoon Classes - 1:30 pm to 3:45 pm

\*Courses worth 2 PADEP Contact Hours, unless otherwise noted.

- 6-03 PFAS Management: What to do BEFORE you do it:** PFAS/PFOA and similar "forever" chemicals are a significant concern for drinking water and wastewater treatment facilities. Concerns range from removal during treatment to concerns over proper disposal of contaminated media and solids. This course covers current technology to address these concerns. *Trainer: Phil Farina, Mike Rizzo - Clear Creek Systems, Inc.* Earn 2 DW & WW CH
- 6-04 High Precision Global Navigation Satellite Systems (GNSS) Data Collection - Key Ingredients for Mapping Success:** This workshop covers GPS, GNSS and RTK networks that can easily be leveraged by water systems to map new assets or boost the location accuracy of existing mapped data. Hands-on opportunities to explore field data collection workflows. Outside demo – dress appropriately. *Trainer: Jake Holbert, Sally Holbert - Land Logics Group* Earn 2 DW & WW CH
- 6-05 Fundamentals of Ductile Iron Fittings:** Ductile Iron fittings are primarily used in the water and wastewater industry. Operators, managers, and engineers need to have an understanding of the proper use of these fittings in the collection and distribution system. This course will review AWWA standards, regulations, installation, and troubleshooting of Ductile Iron fittings. *Trainer: Michael Chun; Jack Lewis - Tyler Union* Earn 2 DW & WW CH
- 6-06 PVC Pipe and Fittings:** PVC pipe products have been used in collections and distribution systems since the 1960s. Understanding which product to choose and how to install them will ensure a cost-effective, long-lasting result. Additionally, PVC has evolved over the years, offering new and more versatile products. This course will review these topics and help designers and installers choose the best product for their systems. *Trainer: Richard St-Aubin, P.E. - IPEX USA* Earn 2 DW & WW CH
- 6-08 Food/Microorganism Ratio (F/M) And Mean Cell Residence Time (MCRT) (classroom):** An activated sludge treatment system is a living ecosystem and requires special care to ensure that the organisms are healthy and provided with the proper environment for them to flourish. There are many factors that can have an effect on the efficiency and overall operations of an activated sludge treatment plant and there are many operational adjustments that need to be made on a daily basis to keep the system running at its best. Two calculations that are often used to determine those adjustments are F/M Ratio and MCRT. *Trainer: Industry Specialist - PRWA* Earn 2 WW CH
- 6-11 Hydrants Installation, Maintenance and Repair short course:** This course will briefly cover the evolution of fire hydrant design from the early years to present day, explaining the benefits of today's designs. The primary focus of the course will be to train students in the proper operation, maintenance, and repair of fire hydrants. Content includes lecture, "hand's on" demo, and videos. *Trainer: Ryan Caron, Bryan Elford, Tim Storch - Kennedy Valve and M&H Valve* Earn 2 DW CH

- 6-12 Technical Workings of Ultrasonic Water Meters:** Ultrasonic meters can provide a valuable metering solution for utilities. This course will provide technical information, and review when and where to use ultrasonic meters. The advantages, disadvantages, and maintenance needs of ultrasonic meters will be discussed. *Trainer: Sharon DelSignore - EAP Industries, Inc.* Earn 2 DW CH

## Thursday Afternoon Classes - 1:30 pm to 5:00 pm

\*Courses worth 3 PADEP Contact Hours, unless otherwise noted.

- 6-13 Basics of Centrifugal Pumps and Hydraulics:** Centrifugal Pumps are used in both the water and wastewater industry. Understanding how to select a pump for the needs and maintain pumps while being used is important for any water or wastewater operator. This course will review the basics of hydraulics, how to size and select a pump, reading impeller curves, and how to maintain pumps. *Trainer: Brian Sekula, P.E. - Industry Specialist* Earn 3 DW & WW CH
- 6-14 Disinfection Math Review - 3 hr:** This course covers math calculations operators need to perform when using gas chlorination and hypochlorite disinfection. The math problems have been excerpted from DEP Training Module 24 (Gas Chlorination) Unit 4 and DEP Training Module 25 (Hypochlorite) Unit 3. Participants will be doing the following types of calculations: dosage/feed rate, chlorine demand or dose, CT, changing % concentrations and detention time. *Trainer: Deb Rotz - Industry Specialist* Earn 3 DW & WW CH"
- 6-16 Toxic and Combustible Gas Detection Practices:** Operators must be aware of the hazards faced on a daily basis. This course will cover atmospheric hazards, identification of those hazards, choosing the proper equipment for identification, and maintenance of that equipment. *Trainer: Steve Slavutsky - Draeger, Inc / Neal Systems Inc.* Earn 3 DW & WW CH
- 6-17 DW Exam Review Part 4 of 4 - Practice Questions:** Review for those taking the Drinking Water Exams in 2024. *Trainer: Industry Specialist - PRWA* Earn 1 DW CH
- 6-18 WW Exam Review - General and Activated Sludge Part 4 of 4:** Review for those taking the Wastewater Exams in 2024. *Trainer: Walter Higgins, Jeremy Miller - USEPA; PADEP* Earn 1 WW CH

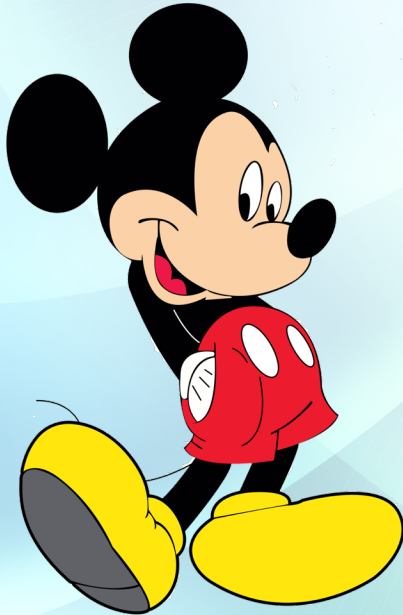
**More classes to be added once confirmed!**  
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