5/15JOSH GREEN, M.D. GOVERNOR OF HAWAI'I KE KIA'ĀINA O KA MOKU'ĀINA 'O HAWAI'I



In reply, please refer to: File: SDWB Minutes 8-28-24

BOARD OF CERTIFICATION OF PUBLIC WATER SYSTEM OPERATORS MINUTES OF THE MEETING

DATE: August 28, 2024

TIME: 10:00 a.m.

MEMBERS PRESENT: James Landgraf (1st term expires 6/30/25)

Ian Ichimura (1st term expires 6/30/28) Zhaohui Wang (1st term expires 6/30/28) William Whaley (1st term expires 6/30/28)

A. Call to Order

- The meeting began at 10:00 a.m.
- New Board Members were introduced.
 - 1. Ian Ichimura
 - 2. Zhaohui Wang
 - 3. William Whaley

B. Old Business

• The Board unanimously approved the May 22, 2024 meeting minutes.

C. New Business

DSO Certification Applications

The Board unanimously approved the following applications for certification:

	Name	Grade Requested	Grade Approved
1	Castler, Katelyn	1	1
2	Jacquez, Alejandra	1	1
3	Parker, Joshua	1	1

4	Rapanot, Scottie	1	1
5	Hadama, Kelly	2	2
6	Kim, Ethan	2	2
7	Lee, Shane	2	2
8	Neizman, Davis	2	2
9	Hamlin, Matthew	3	3
10	Wagner, Genalyn	3	3
11	Ano, James	4	4
12	Hutchinson, Gary	4	4
13	Truong, William	4	4
14	Arellano, Thomas	2 Reciprocity	2 Reciprocity

For detailed information on the DSO applications, please refer to Attachment 1.

• WTPO Certification Applications

The Board unanimously approved the following applications for certification:

	Name	Grade Requested	Grade Approved
1	Basilio, Brandon	1	1
2	Fujii, Kayne	1	1
3	Fukamizu, Alan	1	1
4	Garcia, Flynn	1	1
5	Gomes, Paul	1	1
6	Kaina, Anthony	1	1
7	Matsui, Destry	1	1
8	Paulino, Alfred	1	1
9	Reynolds, Teva	1	1
10	Sanchez, Brian	1	1
11	Stacy, Robert	1	1
12	Young, Darcy	1	1
13	Matsu, Lindo	2	2
14	Weber, Daniel	2	2

For detailed information on the WTPO applications, please refer to Attachment 2.

• CEU Requests

The Board unanimously approved the following CEU requests:

	Course	Date	Sponsor	CEUs Approved
1	Communicating About Lead: Real-World Utility Examples	3/27/24	AWWA	0.15
2	LCRR, Now LCRI - What You Need to Know	5/16/24	NRWA	0.1
3	Make it Yourself	5/22/24	Cleanwater1	0.1
4a	Distribution Systems Unregulated Inorganics and Why You Should Monitor Them (Part 1)	5/8/24	AWWA	0.15
4b	Distribution Systems Unregulated Inorganics and Why You Should Monitor Them (Part 2)	5/15/24	AWWA	0.15
5	Regional Water Distribution Models - What, Why and How	5/22/24	AWWA	0.15
6	PFAS Today, Tomorrow, and Forever: MCLs are Here	6/11/24	EFCN	0.15
7	Inorganics Treatment: Arsenic and Nitrate	6/25/24	US EPA	0.1
8	Florida's WATER Tracker	7/11/24	US EPA	0.1
9	Water, Wildfires and Wisdom	7/17/24	AWWA	0.15
10	Digital Twins for Emergency Management	7/24/24	AWWA	0.15
11	Microgirds and DERs for Water and Wastewater Utilities	7/25/24	US EPA	0.1
12	Drinking Water System Resilience	7/30/24	US EPA	0.1
13	DC Public Health and Healthcare Water Emergency Management	7/31/24	US EPA	0.1
14	AWWA Hawaii Section Workshop	8/7/24	AWWA Hi	0.5
15	Cloud Based SCADA	8/8/24	NRWA	0.1

	System			
16	Consolidation, Partnerships, and Regionalization	8/28/24	US EPA	0.1
17	Wading Into Water Quality Modeling: Tackling Distribution System Challenges	8/28/24	AWWA	0.15
18	2024 HRWA Conference	11/20- 21/24	HRWA	20 sessions for 0.075 each 1 session for 0.3 1 session for 0.35 1 session for 0.4
19	Leak Detection Method and Monitoring	Various	HRWA	0.3
20	DSO Certification Review	Various	RCAC	0.7
21	Do the Math: Operator Certification Math	Various	RCAC	0.8
22	Training on AWWA Free Water Audit Software v6.0	Various	CWRM	0.6
23	Advanced HAZWOPER Awareness (Modules 1-4)	Various	Vector Solutions	0.8
24	Water Treatment Review	Various	American Water College	1.6
25	Hazardous Material Identification and Spill Prevention	Various	Vector Solutions	0.1
26	Pipe, Valve, and Fittings – An Introduction	Various	CEU Plan	0.4
27	Fecal Coliform Bacteria Determination	Various	CEU Plan	0.1
28	ACE2023	6/13- 14/23	AWWA	0.25
29	17 th Annual National Park Service & Small System Operator Training	10/24- 26/23	Montana Rural Water	1.8

For detailed information on the CEU requests, please refer to Attachment 3.

• DSO Certification Exam Results

The Board was notified of the following results of the DSO certification exam administered from the last board meeting to date. Exams were administered on Oahu, Maui, Kauai, and the Big Island. Thirteen out of 27 operators passed for an overall passing rate of 48%.

	Examinee	Grade	Certification
1	Adolpho, Jarret	1	None
2	Blankenfeld-Kaheiki	1	D1-558
3	Dochin, Travis	1	None
4	Inis, Lino	1	None
5	Kaheiki, George	1	D1-559
6	Kaiwi, Lester	1	None
7	Kealoha-Hall, Christopher	1	D1-560
8	Lehano-Boyce, Dick	1	None
9	Manner, Jaymen	1	D1-561
10	McDonald, Darrell	1	D1-562
11	Pacheco, Miles	1	None
12	Sagon, Herbert	1	D1-563
13	Smith, Earl	1	None
14	Tranilla, Riccardo	1	None
15	Weber, Daniel	1	D1-564
16	Wong, Wildfred	1	None
17	Bitancor, Romel	2	D2-334
18	Ellamar, Rory	2	None
19	Gago, S'mon	2	D2-335
20	Medeiros, Jason	2	D2-336
21	Nunes, Joshua	2	D2-333
22	Belanio, Rory	4	None
23	Evans, Troy	4	D4-306
24	Flory, Juleen	4	D4-307
25	Inouye, Alvin	4	None
26	Oducado, Justin	4	None
27	Warren, Joshua	4	None

DSO Exam Results					
Grade	Passed	Examinees	Passing Rate		
DSO 1	7	16	44%		
DSO 2	4	5	80%		
DSO 3	-	-	-		
DSO 4	2	6	33%		
Total	13	27	48%		

• WTPO Certification Exam Results

The Board was notified of the following results of the WTPO certification exam administered from the last board meeting to date. Exams were administered on Oahu, Maui, Kauai, and the Big Island. Three out of 10 operators passed for an overall passing rate of 30%.

	Examinee	Grade	Certification
1	Gaspar, Matthew	1	T1-270
2	Kauhola, Matthew	1	None
3	Lungay, Micah	1	None
4	Viernes, Roque	1	None
5	Estrella, Frank	2	None
6	Hadama, Kelly	2	T2-252
7	Pang Kee, Adrian	2	None
8	Onellion, Matthew	3	T3-051
9	Martin, Francis	4	None
10	Paman, Daniel	4	None

WTPO Exam Results					
Grade	Passed	Examinees	Passing Rate		
WTPO 1	1	4	25%		
WTPO 2	1	3	33%		
WTPO 3	1	1	100%		
WTPO 4	0	2	0%		
Total	3	10	30%		

D. Announcements

• The next board meeting will be scheduled on November 25, 2024.

E. Adjournment

• The meeting was adjourned at 11:15 a.m.

Respectfully Submitted,

Jodi Yamami

FOR Board of Certification of Public Water System Operators

JY:sw

c: Anna Yen, U.S. EPA Region IX [via yen.anna@epa.gov only]
Stephanie Hung, U.S. EPA Region IX [via hung.stephanie@epa.gov only]
James Landgraf, Board Member [via jlandgraf@hawaiiantel.net only]
Ian Ichimura, Board Member [via jlandgraf@hawaiiantel.net only]
Zhaohui Wang, Board Member [via zhaohui.wang@doh.hawaii.gov only]
William Whaley, Board Member [via whaleywilliam@aol.com only]

ATTACHMENT 1 DSO DECISIONS 8-28-2024

1 Castler, Katelyn Grade 1

212 Wailuku Supervisor Leonore Amano Water Microbiologist 1 yr/7 mos

Approve Grade 1

Perform chemical and biological examination of water to gauge water quality, participate in collection of field samples, responsible for calibration, quality control, and routine maintenance of various laboratory instruments, prepare laboratory reagents, culture media, and stock solutions, chlorine proficiency certified, respond to consumer concerns and water quality questions, review data and create reports

2 Jacquez, Alejandra Grade 1

212 Wailuku Supervisor Leonore Amano Water Microbiologist 1 yr/6 mos

Approve Grade 1

Perform chemical and biological examination of water to gauge water quality, participate in collection of field samples, responsible for calibration, quality control, and routine maintenance of various laboratory instruments, prepare laboratory reagents, culture media, and stock solutions, chlorine proficiency certified, respond to consumer concerns and water quality questions, review data and create reports

3 Parker, Joshua A. Grade 1

237 Lanai City Supervisor Roy Silva Superintendent 1 yr

Approve Grade 1

Respond to complaints, repair and maintain system, well checks, monitor and adjust chlorine

4 Rapanot Jr., Scottie D. Grade 1

230 Hoolehua Supervisor Elroy Mollena General Labor 1 yr/4 mos

Approve Grade 1

Provide assistance to water system staff in identification of pipe materials on the distribution side and customer side for lead service line inventory, conduct water meter swaps in replacing mechanical meters with ultrasonic meters, assist with repair and replacement of water main breaks

5 Hadama, Kelly C. Grade 2

432 Anahola Farm Lots Supervisor Ann Sokei Water Operator 2 yrs

Approve Grade 2

Daily and routine checks of well pumps/tank, chlorine residual reading and recording, equipment readings, trending pump run times and flow totals to determine proper equipment operations, checks in the distribution system, hydrant and valve maintenance, flushing, troubleshooting issues, documenting repairs and maintenance, maintaining proper chlorine residual, monitor and adjust pressure, adjust and maintain ClaVal pressure reducing system

DSO 1 and WTPO 2 certified

6 Kim, Ethan J. Grade 2

400 Lihue-Kapaa Supervisor Chris Nakamura Pipefitter, Pipefitter Helper 2 yrs/2 mos

Approve Grade 2

Installs and replaces valves, hydrants and other fittings, repairs main breaks and service leaks, taps main lines, assists in excavating and backfilling read water meters

ATTACHMENT 1 DSO DECISIONS 8-28-2024

7 Lee, Shane Grade 2

303 Kunia Supervisor Alan Gottlieb Water Operator 22 yrs

8 Neizman, Davis R. Grade 2

205 Kaanapali Supervisor John Kadowaki Utility Operator 2 yrs/11 mos

9 Hamlin, Matthew W. Grade 3

345 Schofield Barracks Supervisor Norberto Ramos DSO3 Water Specialist 7 yrs/2 mos

10 Wagner, Genalyn M. Grade 3

345 Schofield Barracks
Supervisor Norberto Ramos
DSO3
Water Systems Manager
1 yr/4 mos

11 Ano, James K. Grade 4

314 St. Stephen's Diocesan Center Supervisor David Paul Director of Operations 8 yrs

Approve Grade 2

DRC for multiple water systems responsible for compliance, maintenance and operations of deep wells, booster pumps, chlorination systems, air stripping towers and GAC filtration

DSO 1 and WTPO 1 certified

Approve Grade 2

Perform daily chlorine residual checks at designated sample sites, daily routine checks at the tank/well sites, perform weekly water quality testing, perform routine bacterial sampling and granular activated carbon sampling to monitor for EDB, TCP and DBCP, assist with field orders, do preventative maintenance, hydrant/meter maintenance

DSO 1 and WTPO 1 certified

Approve Grade 3

Actively involved in executing and managing Army's waterline projects, perform functionality and technical design reviews to ensure quality and compliance, oversee water studies and implement pipeline repairs, oversee and manage the preventive maintenance of the water systems

• WTPO 1 certified

Approve Grade 3

Actively involved in executing and managing Army's waterline projects, perform functionality and technical design reviews to ensure quality and compliance, oversee and manage the preventive maintenance of the water systems

- Qualifying Bachelor of Science in Chemical Engineering from Mapua University with 20 adjusted semester units. 20 units required for qualification.
- With qualifying Bachelor's degree, candidate requires at least 1 year of experience for Grade 3 exam approval

Approve Grade 4

Input, review and analyze date, write reports, develop CIPs, troubleshoot, repair, and perform maintenance as needed, set up and adjust chlorination equipment, assist with water sampling and scheduling as needed, inspect overall operational condition of systema n dame recommendations to system owner, assist with training of new operators

DSO 2 and WTPO 1 certified

ATTACHMENT 1 DSO DECISIONS 8-28-2024

12 Hutchinson, Gary L. Grade 4

345 Schofield Barracks Supervisor Norberto Ramos DSO3 Civil Engineer 3 yrs/9 mos

Approve Grade 4

Oversee water studies and implement system repairs, monitor maintenance and construction of water treatment systems, distribution pipelines and reservoirs, oversee and manage the preventive maintenance of water systems, actively involved in executing and managing Army's waterline projects, perform functionality and technical design reviews to ensure quality and compliance

- Qualifying Bachelor of Science in Environmental Engineering from University of Nevada, Reno with 21.5+ adjusted semester units. 20 units required for qualification.
- With qualifying Bachelor's degree, candidate requires at least 2 years of experience for Grade 4 exam approval

13 Truong, William A.K. Grade 4

331 Honolulu Windward Pearl Harbor Supervisor Sherrilyn Lee Water Microbiologist 4 yrs

Approve Grade 4

Approve Grade 2 Reciprocity

Collect and analyze drinking water samples in compliance to US EPA and SDWB water regulations, conduct various chemical monitoring tests on drinking water in the field and in the laboratory including residual chlorine, turbidity, conductivity, pH, and temperature, conduct various qualitative and quantitative bacterial tests for total coliform, e. coli, and heterotrophic bacteria, results of compliance testing are used to inform the water system of possible changes or defects in regards to water quality, responds and investigates customer complaints and inquiries, inputs and reviews laboratory data for submission, maintains the quality control of laboratory equipment

14 Arellano, Thomas J. Grade 2 Reciprocity

OMWD Supervisor Mark Wilson Utility 2 yrs/3 mo Performed work on distribution system main line, customer service line repairs, installation, distribution reservoir maintenance work, appurtenance repairs, installation and road and easement maintenance

- Hawaii WTPO Grade 4 certified
- California Water Distribution Operator Grade D3 29412 expires 12/1/2024
- California Water Distribution Operator Grade 3 is the middle level out of 5 levels in California requiring a high school diploma, 2 years of appropriate experience, & passing of California Distribution Grade 3 exam
- California writes their own exams

ATTACHMENT 2 WTPO DECISIONS 8-28-2024

1 Basilio, Brandon Grade 1

348 Waiawa Membrane Filtration Supervisor Ian Ichimura Operations Manager 5 yrs/3 mos

2 Fujii, Kayne T. Grade 1

101 South Central Hilo Chlorination Supervisor Alvin Inouye Plant Operator 11 yrs

3 Fukamizu, Alan K. Grade 1

114 Punaluu Chlorination Operator Supervisor Kelly Rapoza 2 yrs/6 mos

4 Garcia, Flynn M. Grade 1

360 Joint Base Pearl Harbor Hickam Chlorination Supervisor Trevor Inouye Industrial Equipment Mechanic Leader 4 yrs/5 mo

5 Gomes, Paul Grade 1

256 Maui Highlands Reverse Osmosis Supervisor Christian Rosenthal Water Operator 2 yrs/11 mos

Approve Grade 1

Responsible for monitoring Technicians performing: troubleshooting and repair of water treatment equipment, maintenance of membrane filtration systems, maintain/calibrating chlorine residual analyzers and turbidimeters, taking water samples, backflow assembly testing and doing preventative maintenance, review lab results for possible violations

DSO 1 certified

Approve Grade 1

Maintain daily logs and repair of purification apparatus, monitor Cl2 levels and rates and adjust as needed under the direct supervision of DSO 3, supervised change outs of 150# Cl2 cylinders

Approve Grade 1

Assist licensed water treatment plant operator in the operation of drinking water facility consisting of chemical feed, chlorination dosage, storage residual, multiple points of Cl2 residual monitoring, sample collections, flushing and response to customer complaints/water issues

DSO 1 certified

Approve Grade 1

Operate and maintain main water pumps with sodium hypochlorite and sodium fluoride injection, adjust dosages of chlorine and fluoride as needed

DSO 4 certified

Approve Grade 1

Duties include visual inspection and maintenance of RO water treatment plant and equipment, maintain RO water treatment system according to Doh and manufacturer guidelines and specifications, check calibration of monitoring equipment, chlorine residual testing daily and logging, record and log RO treatment plant operating parameters, adjust chemical feeder as necessary, filling of chemical tanks when needed, read and log of RO flowmeters, order and maintain required spare parts, log all work in journal located on site

DSO 1 certified

ATTACHMENT 2 WTPO DECISIONS 8-28-2024

6 Kaina, Anthony P. Grade 1

213 Makawao Direct Filtration Supervisor Marvin Ignacio WTPO Trainee 1 yr

Approve Grade 1

Assist with plant operator duties such as SCADA, lab samples of turbidity, UV, chlorine, pH and temperature, collect and input daily numbers of water quality, sonic testing, pinning, cleaning and changing of membrane filters, troubleshoot plant operations such as pump rebuilds, valve repairs, OSG maintenance and repairs, chemical transfers, SCADA maintenance and cleaning, travel screen cleaning, and air leak repairs

7 Matsui, Destry T. Grade 1

110 Kalapana Chlorination Supervisor Alvin Inouye Plant Operator 7 yrs

Approve Grade 1

Keep daily logs of well sites which have chlorination in place and monitor of Cl2 residuals and rates, replace empty Cl2 150# cylinders as needed under direct supervision of DSO 3

8 Paulino Jr., Alfred Grade 1

360 Joint Base Pearl Harbor Hickam Chlorination, Fluoridation Supervisor Rodney Rego Industrial Equipment Mechanic 8 yrs

Approve Grade 1

Maintain chlorine & fluoride levels, maintain hygiene of all pump stations producing sodium hypochlorite, maintenance of chlorine and fluoride injection pumps

360 Joint Base Pearl Harbor Hickam Chlorination, Fluoridation Supervisor Trevor Inouye Production Supervisor 4 yrs/7 mos Operate and maintain water production including adjusting dosages for chlorine and fluoride

DSO 4 certified

9 Reynolds, Teva L. Grade 1

135 Hawaii Water Service Chlorination Supervisor Gary Shiroyama Utility Worker 1 yr/6 mos

Approve Grade 1

Take chlorine readings, repair chlorine valves, exchange chlorine tanks, troubleshoot, locate leaks on chlorine lines, adjust chlorine dosage for storage tanks feeding the distribution system

DSO 1 certified

10 Sanchez, Brian K. Grade 1

135 Hawaii Water Service Chlorination Supervisor Gary Shiroyama Utility Worker 2 yrs/11 mos

Approve Grade 1

Daily chlorine reads, take residual before and after tanks, adjust dosages, add sodium hypochlorite, troubleshoot chlorinator performance and repair/replace as determined

DSO 1 certified

ATTACHMENT 2 WTPO DECISIONS 8-28-2024

11 Stacy Jr., Robert W. Grade 1

222 Haleakala Slow Sand, Chlorination Supervisor Owen Waltrip Maintenance Worker Supervisor 9 yrs

12 Young, Darcy C. Grade 1

131 South Kona Chlorination Supervisor Alvin Inouye Plant Operator 7 yrs

13 Matsu III, Lindo K. Grade 2

130 South Kohala Chlorination, Corrosion Control, Membrane Filtration Supervisor Alvin Inouye Plant Operator 9 yrs

14 Weber, Daniel J.N. Grade 2

163 Kaupulehu Reverse Osmosis Supervisor Rory Belanio Water Treatment Operators 2 yrs

Approve Grade 1

Involved with decisions and process for all repairs on replacing the filtration media in slow sand filters, daily residual checks, chemical dosing to treat the water, make adjustments to the dosing pumps to maintain that the proper amount of chemical was being added

DSO 1 certified

Approve Grade 1

Daily station checks and data acquisition of pumpage, change out of CI2 cylinders, monitoring of daily residual levels in system, maintain chlorination apparatus as needed

Approve Grade 2

Maintain daily logs and oversee purification apparatus, monitor Cl2 levels and rates and adjust as needed, change out 150# Cl2 cylinders, add chemicals orthophosphate & polymer as needed (3 days/week) at the plant, do labs pH, chlorine, turbidity, color daily, change ammonia cylinders, clean intakes, take flow rates, add orthophosphate and soda ash for corrosion control, backwash and CIP under direction of DRC

WTPO 1 certified

Approve Grade 2

Collect and analyze field samples from RO skids, preventive maintenance on equipment in and outside of RO facility, install new valves and membranes, adjust and monitor flows on SCADA systems, CIP RO skids to backflush membranes, grab samples and perform lab tests on samples

• DSO 1 and WTPO 1 certified

Hawaii Courses

1 Communicating About Lead: Real-World Utility Examples

3/27/24 This webinar will feature communications about the risks of lead entering drinking water and lead service line replacement programs. Examples will be shared of communication that's worked for education and engagement.

0.15 CEUs

2 LCRR, Now LCRI - What You Need to Know

5/16/24 This webinar will discuss everything you need to know ahead of the service line

NRWA webinar inventory deadline and what to expect going forward from there.

1.0 Contact Hour

0.1 CEUs

3 Make it Yourself

5/22/24 This webinar will provide a practical understanding of the science and
Cleanwater1 webinar implementation behind on-site sodium hypochlorite generation as a source of
1.0 Contact Hour chlorine disinfection capacity for water and wastewater plants as well as

0.1 CEUs distributed well systems.

4a Distribution Systems Unregulated Inorganics and Why You Should Monitor Them (Part 1)

5/8/24 This webinar will examine the issues that occur with unregulated inorganics in AWWA webinar terms of asset management, risk to public health and customer satisfaction with 1.5 Contact Hours water quality. Unregulated inorganics in the distribution system may be a cause for customer complaints and an asset management nightmare for utilities.

4b Distribution Systems Unregulated Inorganics and Why You Should Monitor Them (Part 2)

5/15/24 This part will discuss the unintended consequences of pH adjustment and the AWWA webinar potential impacts to metals and complexes in a distribution system. And inorganic chloramines and how to monitor and what interferences to be aware of while monitoring will be discussed.

5 Regional Water Distribution Models - What, Why and How

5/22/24 This model will discuss challenges associated with creating regional water
AWWA webinar distribution models, unique aspects of regional transmission models, and
1.5 Contact Hours advantages regional models can provide for resiliency, emergency supply, and
comprehensive water quality analysis.

6 PFAS Today, Tomorrow, and Forever: MCLs are Here

6/11/24 This webinar will take an in-depth look at the MCLs for each of the six regulated PFAS, monitoring and compliance requirements for PWSs, and Primacy Agency requirements.

0.15 CEUs

7 **Inorganics Treatment: Arsenic and Nitrate**

6/25/24 Topics include:

US EPA Biological nitrate treatment

1.0 Contact Hour Arsenic refresher

0.1 CEUs Arsenic case study in California

8 Florida's WATER Tracker

7/11/24 This webinar will describe Florida's Water Assistance Tracking and Emergency **US EPA** Response System (WATER) Tracker. This system is the one source for all water 1.0 Contact Hour and wastewater facilities to report event-related status and to submit needs and

0.1 CEUs request resources. This system was designed for all hazard types to include both

natural hazards and malevolent acts.

Water, Wildfires and Wisdom

7/17/24 Topics include:

AWWA webinar Risk mitigation strategies

1.5 Contact Hours Collaboration to develop strategies for addressing water challenges 0.15 CEUs post-wildfire

> Educate communities about the risks and promote participation in resilience efforts

Incentives to invest in resilient infrastructure and sustainable water management practices

10 **Digital Twins for Emergency Management**

7/24/24 Topics include:

AWWA webinar Visualize and monitor infrastructure

1.5 Contact Hours Predict and mitigate risks 0.15 CEUs Optimize response planning

Enhance communication and coordination

Improve resilience

Microgrids and DERs for Water and Wastewater Utilities 11

7/25/24 This webinar covers the basics of microgirds and DERs and case studies for how

US EPA webinar they have been implemented at utilities. A microgrid is a group of 1.0 Contact Hours interconnected loads and distributed energy sources (DERs) that

0.1 CEUs acts as a single controllable entity with respect to the power grid. During a grid

power outage, water and wastewater utilities could switch to an electric microgrid powered by both on-property and off-property sources (e.g., solar

photovoltaics, wind turbines, biogas, battery banks) to sustain critical

operations.

12 Drinking Water System Resilience

7/30/24 Topics include:

US EPA webinar • America's Water Infrastructure Act Section 2013

1.0 Contact Hours
 Water laboratory Alliance's Resources to Improve Contamination
 Incident Resilience

13 DC Public Health and Healthcare Water Emergency Management

7/31/24 This webinar will provide insight from healthcare professionals on challenges
US EPA Webinar they have faced during water emergencies and potential impacts to healthcare
during these emergencies requiring water utilities to work together to minimize

0.1 CEUs negative impacts.

14 AWWA Hawaii Section Workshop

5.5 Contact Hours

0.5 CEUs

8/7/24 Topics include:

AWWA Hi

• AWWA Hawaii Section membership meeting (no CEUs)

• Small Systems Roundtable

Cybersecurity

o Fire department coordination

Chlorination conflicts

SDWB Regulatory Update

• MDWS Hot Topics (Lunch)

Lahaina and Upcountry wildfires

Upcountry drought

o County-wide source development

Meter priority list

• Maui DWS presentation and tour

History

o Regulatory and operational challenges

lao WTF upgrade and tour

15 Cloud-Based SCADA Systems

0.1 CEUs

8/8/24 The attributes of a good cloud-based SCADA system will be discussed and NRWA analyzed and RealiteQ will be shown. A good system has high security, two-way communications, is flexible and is low cost. It can integrate with any other data management system.

16 Consolidation, Partnerships, and Regionalization

8/27/24 Topics include:

US EPA
 Mapping the Nations Community Water Systems

1.0 Contact Hour
• Linking Drinking Water Data to Consumers

• Drinking Water Consolidations and Partnerships in California

• Evolving Solutions to Achieve the Human Right to Water

This webinar will discuss critical water quality components in distribution

17 Wading Into Water Quality Modeling: Tackling Distribution System Challenges

8/28/24 AWWA webinar 1.5 Contact Hours

A webinar systems and identifying corresponding challenges and potential solutions that utilities may face.

0.15 CEUs

18 **2024 HRWA Conference**

11/19-21/24 HRWA

20 sessions at 45 minutes each for 0.075 CEUs each 1 session at 3 hours for 0.3 CEUs

1 session at 3.5 hours for 0.35 CEUs

1 session at 4 hours for 0.4 CEUs

45-minute drinking water sessions for full credit:

- PFAS Drinking Water Rule What's it All About
- Active Acoustic Leak & Pressure Monitoring for Reducing Non-Revenue Water Loss
- Climate Change: The Trio of Tricky Problems
- Distribution System Water Quality Improvements with Implementation of Active Tank Mixing
- GAC 101 Activated Carbon for Water Treatment
- How to Hack Your Supervisor's Computer Preparing for Operation in the Dark
- History of Water Service Pipe
- Filter Mechanics & Maintenance
- Fire Starters: Invasive Species and the Wildfire Threats They Pose to Water Systems
- HRWA Apprenticeship Program
- Building an OT Cybersecurity System
- Backflow Enclosures When Backflow Enclosures No-Longer Meet ASSE 1060
- Benefits of Tank Mixing Inside Potable Water Storage Tanks
- Preparing for Lead and Copper Rule
- Peristaltic & Diaphragm Chemical Metering Pumps Accessories & Systems
- Understanding electrical Details & Schematic Drawing
- New Jersey's Largest Water Utility Installs Novel Media Fluorsorb for PFAS Removal
- Ductile vs Grey Cast Iron
- On-Site Sodium Hypochlorite Generation: A Safe and Cost-Effective Solution for Disinfection
- All Things Ductile

3-hour drinking water session for full credit:

GPS in Hawaii: How to Get Higher Location Accuracy for Your Maps

3.5-hour drinking water session for full credit:

Emergency Management Workshop

4-hour drinking water session for full credit:

 Strategic Overview of Disaster Management for Water and Wastewater Utilities

Repeating Courses

19 Leak Detection Method and Monitoring

HRWA

3.0 Contact Hours

0.3 CEUs

This course will look at water loss control programs that utility staff can implement in their systems. Water audits and their requirements, interventions, and other evaluations that operators can perform to reduce their water loss will be discussed. Also, how systems can develop a leak detection program and methods of leak detection, including various types of equipment that is utilized will be discussed.

20 **DSO Certification Review**

RCAC

7.0 Contact Hours

0.7 CEUs

Topics include:

- Groundwater
- Surface Water
- Water Quality
- Lead & Copper
- Stage 2 Disinfection Byproducts
- Cross Connection and Backflow Prevention
- Distribution Networks
- Meters
- Valves
- Storage
- Hydrants
- Pumps
- Disinfection
- Safety

21 Do the Math: Operator Certification Math

RCAC

8.0 Contact Hours

0.8 CEUs

Topics include:

- Fractions
- Order of operation
- Conversions
- Percentages
- Area
- Perimeter
- Volume
- Dosage

22 Training on AWWA Free Water Audit Software v6.0

CWRM

6.0 Contact Hours

0.6 CEUs

This free training workshop on the AWWA Free Water Audit Software (FWAS) v6.0 is being offered because the Commission on Water Resource Management (CWRM) is requiring affected public water systems to begin using FWAS v6.0 in 2025. This workshop will review the AWWA M36 water loss audit methodology, explore the new features in the AWWA FWAS v6.0, and ensure a smooth transition from v5.0 to v6.0. The invitees are the public water system owners, operators, and contractors who are responsible for completing the annual water loss audits for submission to CWRM.

Correspondence/Online Courses

23 Advanced HAZWOPER Awareness (Modules 1-4)

Vector Solutions

8.0 Contact Hours

0.8 CEUs

Topics include:

- Describe purpose of the Federal Hazardous Waste Operations and Emergency Response
- List the operations covered
- List the training requirements
- List and describe the major emergency responder roles

24 Water Treatment Review

American Water College 16.0 Contact Hours

1.6 CEUs

Topics include:

- Source Water
- Coagulation and Flocculation
- Sedimentation
- Filtration
- Disinfection
- Corrosion Control
- Fluoridation
- Iron and Manganese Control
- Lime Softening
- Regulations
- Membrane Technology

25 Hazardous Material Identification and Spill Prevention

Vector Solutions 1.0 Contact Hour

0.1 CEUs

This course covers what composes a hazardous material and presents the requirements for the general handling, storage, and disposal of hazardous materials. It covers what a Safety Data Sheet (SDS) is and how to recognize the information contained in an SDS. It teaches you to recognize the special response procedures necessary to handle hazardous materials spills and covers personal protective equipment (PPE) and why you'd use it. It also identifies the procedures for cleaning up a hazardous material spill.

 Name change only from Water Industry HAZMAT Spill Prevention & Control – content remains the same

26 Pipe, Valve, and Fittings – An Introduction

CEU Plan

Topics include:

4.0 Contact Hours

0.4 CEUs

Introduction and History of Wooden Pipe

• Steel, Concrete, Cast Iron Pipe

• Clay Pipe with Making & Labeling

PVC Pipe

• Thermoplastic and Thermoset Pipes with Installation Guides

• Metal Pipe Joining with Gaskets

Valves – Globe, Gate, Ball

• Plug, Butterfly, Wedge, Check, Foot, Air Release

Fittings

Case Study – Dealing with Hypochlorite in PVC Pipes

Installation and Application Techniques

27 Fecal Coliform Bacteria Determination

CEU Plan

1.0 Contact Hour

Topics include:

• Bacteriological Procedures

Membrane Filter Procedure

• Most Probable Number Procedure and QC

Mainland Courses

0.1 CEUs

28 **ACE2023**

6/13-14/23

AWWA

2.5 Contact Hours

0.25 CEUs

Topics include:

PFAS Best practices in risk communication (TUE38)

 Challenges and advantages of regional water distribution system modeling (WED25A)

29 17th Annual National Park Service & Small System Operator Training

10/24-26/23

Montana Rural Water

Association

24.0 Contact Hours

1.8 CEUs

Topics include:

• Rules Review

Hydrants and Valves

Meters

• MBR Filtration to Reuse (no credit 1 hour)

Pumps

Lift Station Odor Control (no credit 1 hour)

• Cyber Security & ERPs

Critical Conversations and Aging Infrastructure

Butterfly Valves, Air Release Valves, and Backflow

New Technologies for Inserting Valves Under Pressure

• Leak Detection Condition Assessment of Pipes

MBR Processes and Practices (no credit 1.5 hours)

• Tour Wastewater Treatment Plant (no credit 2.5 hours)

No credit for wastewater topics