



STATE OF HAWAII
DEPARTMENT OF HEALTH
KA 'OIHANA OLAKINO
P. O. BOX 3378
HONOLULU, HI 96801-3378

In reply, please refer to:
File: SDWB
Minutes 8-23-2023

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

DATE: August 23, 2023

TIME: 10:00 a.m.

MEMBERS PRESENT: Jodi Yamami (2nd term expires 6/30/24)
Mark Prescott (2nd term expires 6/30/24)
James Landgraf (1st term expires 6/30/25)

A. Call to Order

- The meeting began at 10:00 a.m.

B. Old Business

- The Board unanimously approved the May 23, 2023 meeting minutes.

C. New Business

- DSO Certification Applications

The Board unanimously approved the following applications for certification:

	Name	Grade Requested	Grade Approved
1	Phelps, Taylor	OIT	OIT
2	Baraoidan, Dylan	1	1
3	Blankenfeld-Kaheiki, George	1	1
4	Flory, Juleen	1	1
5	Ihara-Takase, Colby	1	1
6	Kawaguchi, Christopher	1	1
7	Kealoha-Hall, Christopher	1	1
8	Nakamura, Kyle	1	1
9	Nunes, Joshua	1	1

10	Tranilla, Riccardo	1	1
11	Gameros Campos, Raul	2	2
12	Larson, Roland	2	2
13	Tabangcura, Wilfred	2	2
14	Belanio, Rory	4	4

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	Hadama, Kelly	1	1
2	Miyata, Karli	1	1
3	Mukai, Brian	1	1
4	Weber, Daniel	1	1
5	Vasquez, Quinnton	2	2
6	Evans, Troy	4	4
7	Wietrzak, Anthony	4 Reciprocity	4 Reciprocity

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	CVU-101/201	11/15-17/22	Cla-Val University	1.8
2	Let's Talk Lead: New LCRR Communications Tools to Strengthen Public Trust	12/2/22	AWWA	0.15
3	LCRR Data: Collect and Submit Your SLI to Your State Agency	12/14/22	120Water	0.1
4	How to Use Effective Utility Management Framework to Improve Your Utility	2/1/23	AWWA	0.15

Confirmation				
5	2023 HRWA Conference (additional session)	5/24- 25/23	HRWA	1 session @ 0.075
6	To Inventory and Beyond	5/2-23/23	120Water	0.4
7	An Introduction to PFAS Analytic	6/1/23	US EPA	0.1
8	Bipartisan Infrastructure Law	6/27/23	US EPA	0.1
9	Wildfire Impacts on Drinking Water	7/25/23	US EPA	0.1
10	Vibration Corrective Action Strategies for Pumping Systems	8/1/23	Hydraulic Institute	0.1
11	Cybersecurity	8/29/23	US EPA	0.1
12	Excavation & Trenching: Competent Person	Repeating	Safety Intelligence Institute	0.8
13	Groundwater Treatment Techniques	Repeating	RCAC	0.2
14	Preparing for a Sanitary Survey	Repeating	RCAC	0.2
15	Mapping Small Water Systems with Free Google Earth Pro Desktop	Repeating	RCAC	0.2
16	Trenching, Excavation, and Pipefitting Safety Refresher	Repeating	HRWA	0.1
17	Operational Measures for Resiliency	Online	AWWA	0.1
18	ABS Turbo Blowers	Online	360water	0.1
19	Aerzen Blowers	Online	360water	0.1
20	Andritz Fine Screens	Online	360water	0.1
21	Brentwood SedVac Sludge Removal	Online	360water	0.1
22	Chemco Lime Slakers 1	Online	360water	0.1
23	Chemco Lime Slakers 2	Online	360water	0.1
24	Cummins Emergency Generator Set Course 1	Online	360water	0.1
25	Cummins Emergency Generator Set Course 2	Online	360water	0.1
26	Eimco Clarifiers	Online	360water	0.1
27	Fairbanks Morse VT Raw Water Pumps	Online	360water	0.1
28	FDI dynaBLEND Polymer Feed System	Online	360water	0.1

29	Gardner Denver Blowers	Online	360water	0.1
30	Gardner Denver Multi-Stage Blower	Online	360water	0.1
31	Gas Detector	Online	360water	0.1
32	Heat Stress Safety	Online	360water	0.1
33	IDI Solids Contact Clarifiers	Online	360water	0.1
34	Integrity Fluoride Feed System	Online	360water	0.1
35	JMS Horizontal Paddle Wheel Flocculator	Online	360water	0.1
36	Leopold Biologically Active Filters and GAC Media	Online	360water	0.1
37	Ozonia Off Gas Destruction System	Online	360water	0.1
38	Ozonia Ozone Injection System	Online	360water	0.1
39	Pall Pressure Membrane Filtration System	Online	360water	0.1
40	Peerless Split Case Centrifugal Pump	Online	360water	0.1
41	Pentair Horizontal Split Case Pumps	Online	360water	0.1
42	Philadelphia Mixing Flocculators	Online	360water	0.1
43	Severn Trent Chlorine Induction Units	Online	360water	0.1
44	Siemens Chlorinator	Online	360water	0.1
45	Trojan UV System Course 1	Online	360water	0.1
46	Trojan UV System Course 2	Online	360water	0.1
47	Watson-Marlow Hypochlorite Metering Pumps	Online	360water	0.1
48	Watson-Marlow QDOS Peristaltic Chemical Metering Pumps	Online	360water	0.1
49	Wedeco Ozone Generators	Online	360water	0.1
50	Wedeco UV Reactors	Online	360water	0.1
51	IS-5.A An Introduction to Hazardous Materials	Online	FEMA	1.0
52	2023 ABPA International Conference	5/8-10/23	ABPA	28 sessions @0.075ea 1.5 max

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 in July 2023. Paper-based exams were administered on Oahu, Maui, Molokai, Kauai, and the Big Island. Eight out of 28 operators passed for an overall passing rate of 29%.

	Examinee	Grade	Certification
1	Adric, Keola	1	None
2	Ching, Joshua	1	D1-540
3	Ewen, Daniel	1	D1-541
4	Florendo, Benjamin	1	None
5	Gago, S'mon	1	None
6	Hadama, Kelly	1	D1-542
7	Moriguchi, Eric	1	D1-543
8	Namakaeha, Brennan	1	D1-544
9	Poepoe, Myron	1	None
10	Sanchez, Brian	1	None
11	Victorino, Matthew	1	D1-545
12	Bitancor, Romel	2	None
13	Oguma, Garrett	2	None
14	Padilla, Lawrence	2	None
15	Pa-Kala, Namakana	2	None
16	Ramos, Briceson	2	None
17	Belanio, Rory	3	None
18	Bush, David	3	None
19	Hendershot, Kalei	3	D3-165
20	Mollena, Elroy	3	None
21	Oducado, Justin	3	None
22	Hooks, Ash	4	None
23	Inouye, Alvin	4	None
24	Miyataki, Reid	4	None
25	Nikaido, Jason	4	D4-299
26	Pantastico, Jacob	4	None
27	Waikiki, Neil	4	None
28	Yagin, Edison	4	None

DSO Exam Results			
Grade	Passed	Examinees	Passing Rate
DSO 1	6	11	55%
DSO 2	0	5	0%
DSO 3	1	5	20%
DSO 4	1	7	14%
Total	8	28	29%

- **WTPO Certification Exam Results**

The Board was notified of the following results of the WTPO certification exam administered in July 2023. Paper-based exams were administered on Oahu, Maui, Molokai, Kauai, and the Big Island. Eight out of 14 operators passed for an overall passing rate of 57%.

	Examinee	Grade	Certification
1	Ano, James	1	T1-253
2	Haleamau, Thomas	1	None
3	Kawamura, Justin	1	T1-254
4	Lungay, Micah	1	None
5	Neizman, Davis	1	T1-255
6	Parker, Wilder	1	T1-256
7	Ynigues, Morgan	1	T1-257
8	Copeland, Michael	2	T2-245
9	De Luz, Tanya	2	None
10	Kranchick, Ronald	2	T2-246
11	Evans, Troy	3	T3-050
12	Hannon, Patrick	4	None
13	Martin, Francis	4	None
14	Paman, Daniel	4	None

WTPO Exam Results			
Grade	Passed	Examinees	Passing Rate
WTPO 1	5	7	71%
WTPO 2	2	3	67%
WTPO 3	1	1	100%
WTPO 4	0	3	0%
Total	8	14	57%

D. Announcements

- The next board meeting is scheduled for November 29, 2023.

E. Adjournment

- The meeting was adjourned at 10:20 a.m.

Respectfully Submitted,



Jodi Yamami
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]
Mark Prescott, Board Member [via mprescott90@gmail.com only]

ATTACHMENT 1
DSO DECISIONS
8-23-2023

- 1 **Phelps, Taylor A. OIT** **Approve OIT**
400 Lihue Kapaa
Supervisor Virgil Kapanui
Water Service Investigator
1 month

Assist in underground pipeline locating, underground pipeline leak locating, water service malfunctions, interruptions, and water service complaints

 - Applicant works under a certified DSO Grade 3 operator at Kauai County Department of Water

- 2 **Baraoidan, Dylan D. Grade 1** **Approve Grade 1**
205 Kaanapali
Supervisor Efren Ugalino
Utility Worker
1 yr/1 mos

Perform daily residual checks at designated sample sites throughout the water system, daily routine checks at the tank/wells sites, monitor SCADA for high level alarms, tank/well trends and to ensure all wells and tanks radio communications are working, perform water quality testing, perform routine bacterial sampling and GAC sampling to monitor for EDB, TCP and DBCP, assist with field orders, respond to emergency call-outs, do preventative maintenance, hydrant/meter maintenance

- 3 **Blankenfeld-Kaheiki, George O.K.S. Grade 1** **Approve Grade 1**
156 Hawaiian Shores
Supervisor Tim Manning
Maintenance Worker
7 yrs/6 mos

Flushing mains, lateral lines, & fire hydrants, fire hydrant installation, corporation location, installation, & hot tapping, flag and inspect water lines, water meter reading and installation, residual reading, collecting samples, locating and repairing water lines, mains, and valves, record inventory of supplies

- 4 **Flory, Juleen S. Grade 1** **Approve Grade 1**
212 Wailuku
Supervisor Leonore Amano
Water Microbiologist
2 yrs/6 mos

Perform chemical and biological examination of water to gauge water quality in terms of factors affecting its suitability for intended use, perform standard and special biological analysis of water including quantitative and qualitative determinations of orgasms, participate in the collection of field samples for laboratory analysis, responsible for calibration, quality control, and routine maintenance of various laboratory instruments, prepare laboratory reagents, culture media, and stock solutions, participate in proficiency testing, respond to consumer complaints regarding water quality, review data and create reports

- 5 **Ihara-Takase, Colby M.K. Grade 1** **Approve Grade 1**
423 Kealia
Supervisor Ann Sokei
Water Treatment Operator
1 yr

Daily and routine checks of well pump tank, chlorine reading and recording, equipment checks and servicing, trending pump run times and flow totals to determine proper equipment operations, checks in water distribution system, trouble shooting and responding, documenting repairs and maintenance routing water quality monitoring sampling, and documentation, monitor and adjust water pressure, adjust and maintain Cla-Val-pressure reducing system

ATTACHMENT 1
DSO DECISIONS
8-23-2023

- | | | | |
|----|---|--|------------------------|
| 6 | Kawaguchi, Christopher K. Grade 1
212 Wailuku
Supervisor Leonore Amano
Water Microbiologist
1 yr/5 mos | Perform chemical and biological examination of water to gauge water quality in terms of factors affecting its suitability for intended use, perform standard and special biological analysis of water including quantitative and qualitative determinations of organisms, participate in the collection of field samples for laboratory analysis, responsible for calibration, quality control, and routine maintenance of various laboratory instruments, prepare laboratory reagents, culture media, and stock solutions, participate in proficiency testing, respond to consumer complaints regarding water quality, review data and create reports | Approve Grade 1 |
| 7 | Kealoha-Hall, Christopher T. Grade 1
156 Hawaiian Shores
Supervisor Tim Manning
Maintenance Worker
2 yrs/5 mos | Flushing mains, lateral lines, & fire hydrants, fire hydrant installation, corporation location, installation, & hot tapping, flag and inspect water lines, water meter reading and installation, residual reading, collecting samples, locating and repairing water lines, mains, and valves, record inventory of supplies inspect and maintain water yard | Approve Grade 1 |
| 8 | Nakamura, Kyle T. Grade 1
360 Joint Base Pearl Harbor
Hickam
Supervisor Leonard Nehl
Pipefitter
1 yr | Perform preventive maintenance on assets, flush hydrants, perform repairs as needed on main breaks, change valves, exercise valves, remove and replace backflow preventers, and perform water quality sampling on water system | Approve Grade 1 |
| 9 | Nunes, Joshua J. Grade 1
135 Hawaii Water Service
Supervisor Henry Giltner
Utility Worker
1 yr/3 mos | Service and repair water lines, install and read meters, flush and repair hydrants, take chlorine readings, adjust flows, repair chlorine valves, exchange chlorine tanks, troubleshoot, locate leaks on water line, repair cla-valves, install curb stops | Approve Grade 1 |
| 10 | Tranilla, Riccardo K. Grade 1
156 Hawaiian Shores
Supervisor Tim Manning
Maintenance Worker
1 yr/2 mos | Flushing mains, lateral lines, & fire hydrants, fire hydrant installation, corporation location, installation, & hot tapping, flag and inspect water lines, water meter reading and installation, residual reading, collecting samples, locating and repairing water lines, mains, and valves, record inventory of supplies inspect and maintain water yard | Approve Grade 1 |
| 11 | Gameros Campos, Raul Grade 2
205 Kaanapali
Supervisor Efren Ugalino
Utility Operator
2 yrs/3 mos | Perform daily residual checks at designated sample sites throughout the water system, daily routine checks at the tank/wells sites, monitor SCADA for high level alarms, tank/well trends and to ensure all wells and tanks radio communications are working, perform water quality testing, perform routine bacterial sampling and GAC sampling to monitor for EDB, TCP and DBCP, assist with service leaks, respond to emergency call-outs, do preventative maintenance, hydrant/meter maintenance <ul style="list-style-type: none">• DSO Grade 1 and WTPO Grade 1 certified | Approve Grade 2 |

ATTACHMENT 1
DSO DECISIONS
8-23-2023

- | | | | |
|----|--|---|------------------------|
| 12 | Larson, Roland M. Grade 2
204 Kapalua
Supervisor Frank Rodrigues
Operator
2 yrs/8 mos | Daily checks of wells, pumps and chlorination systems, assist in repairs of main and service lines, respond to customer complaints, monthly meter readings, monthly water samples, daily Cl2 residual readings
DSO Grade 1 certified <ul style="list-style-type: none">• DSO Grade 1 certified | Approve Grade 2 |
| 13 | Tabangcura, Wilfred Grade 2
355 Barber's Point
Supervisor John Shull
Water Operator
4 yrs | Inspect adjust and repair hydrants, valves and system PRV stations and water storage tank, perform flushing operation, collect and deliver all water quality samples to laboratory for analysis, install inspect, adjust and repair chemical injection equipment, maintain system pumps motors and compressor, monitory production via SCADA system and adjust run times as needed to meet system demands <ul style="list-style-type: none">• DSO Grade 1 certified | Approve Grade 2 |
| 14 | Belanio, Rory K. Grade 4
163 Kaupulehu
Supervisor Andrew Bannister
Water Treatment Operator
7 yrs | Maintenance on PRV stations, adjust and work on Cla-Vals and equipment, install meters, hydrant maintenance, flushing, flow testing hydrants, samples in system: bacti, DBP, nitrate, SOC, VOC <ul style="list-style-type: none">• DSO Grade 2 and WTPO Grade 2 certified | Approve Grade 4 |

ATTACHMENT 2
WTPO DECISIONS
8-23-2023

- | | | |
|---|--|-------------------------------|
| <p>1 Hadama, Kelly C. Grade 1
400 Lihue-Kapaa
Microfiltration
Supervisor Ann Sokei
Water Operator
1 yr/4 mos</p> | <p>Reading instrumentation and daily grab and lab analysis to verify instrumentation readings for chlorine residual, pH, temp, turbidity, log, monitor, record pump run times, check chemical pumps, along with chemical supply, work with DRC to adjust set points based on raw water intake, monitor daily maintenance cleans and filtration system daily membrane integrity psi checks, perform preventative maintenance scheduled work orders for equipment, monitor SCADA, respond to call out alarms, troubleshoot equipment when facility is down</p> <ul style="list-style-type: none">• DSO Grade 1 certified | <p>Approve Grade 1</p> |
| <p>2 Miyata, Karli Grade 1
355 Barber's Point
Chlorination
Supervisor Brandon Basilio
Engineer
6 yrs</p> | <p>Switch chlorination pumps, calibrate chlorine sensor on Hach SC200, adjust LMI pumps to get the dosage in targeted range</p> <ul style="list-style-type: none">• DSO Grade 4 certified | <p>Approve Grade 1</p> |
| <p>3 Mukai, Brian W. Grade 1
103 Ninole
Chlorination, Corrosion Control
Supervisor Alvin Inouye
Operator
9 yrs</p> | <p>Responsible for daily purification checks and maintenance of chlorination equipment, keep daily logs of station operation, ensure proper residual levels are met and maintained</p> | <p>Approve Grade 1</p> |
| <p>4 Weber, Daniel J.N. Grade 1
163 Kaupulehu
RO
Supervisor Andrew Bannister
Operator
1 yr</p> | <p>Daily logs of gpm's and pressure gauge readings, visual check on system take samples on system and do lab work, labs consist of Cl₂, pH, Phos, CO₂, TDS, iron, silica and chlorides, change and clean out filters</p> | <p>Approve Grade 1</p> |
| <p>5 Vasquez, Quinnton C. Grade 2
163 Kaupulehu
RO
Supervisor Andrew Bannister
Operator
2 yrs</p> | <p>Take chlorine residuals from sample ports daily, troubleshoot and rebuild chemical pumps, fill and monitor chemical holding tanks for soda ash, Shmp, and hypo, check SCADA, look for abnormal activity on the trend and skids, perform maintenance around RO plant, replace seal on skid leaks, turn plant on, deactivate, and run plant</p> | <p>Approve Grade 2</p> |

ATTACHMENT 2
WTPO DECISIONS
8-23-2023

- 6 **Evans, Troy P. Grade 4** **Approve Grade 4**
247 Lower Kula
Direct Filtration
Supervisor Marvin Ignacio
Water Treatment Plant Operator
3 yrs/11 mos
- Operate multiple grade 2 water treatment plants independently, assist in running plants, transport handle, and store chemicals for treatment process, service and repair filtration modules, service and repair automatic and manual valves, use laboratory equipment to test water quality, keep records of maintenance and water quality, troubleshoot issues with plant, prepare monthly reports for DOH, order replacement parts for plants, assist in operation and maintenance of grade 4 water treatment plant
- WTPO Grade 2 certified
 - Applicant has a qualifying associate degree which qualifies him for the reduced 3 years of work experience required for WTPO Grade 4
- 7 **Wietrzak, Anthony Grade 4 Reciprocity** **Approve Grade 4 Reciprocity**
Chicago Department of Water
Conventional Treatment
Supervisor Tony Sowa
Filtration Engineer
4 yrs
- Chicago Department of Water
Conventional Treatment
Supervisor Javier Ceballos
Engineer of Pumping Stations
22 yrs
- Monitor quality of water entering and leaving plant, order changes in chemical dosage, pumps in service, filtration rates, monitor status of chemical feeding equipment, filters and pumps, monitor status of plant machinery, instrumentation and water purification processes
- Hands on operation in control rooms for water treatment and pumping stations, SCADA systems implementation and PLC programming of controls of water treatment and water pumping, conversion of steam pumping stations to electric pumping stations to minimize carbon footprint, operations and controls of switchgear and generators, installation of photovoltaic systems
- Applicant was previously certified for WTPO Grade 4 via reciprocity in 2003, held the certification until 2020, and then did not renew. Applicant is re-applying for WTPO Grade 4 via reciprocity.
 - Current Illinois Class A Operator #119944127 expires 7/1/2026
 - Illinois Class A Operator is the highest level out of 4 water treatment certifications
 - Illinois Class A Operator requires
 - high school diploma
 - 5340 hours of qualified experience in conventional treatment
 - passing of a 5-hour Class A exam
 - Recommend approving Grade 4 reciprocity because the Illinois Class A 5340 hours in conventional treatment requires more hours in conventional treatment than Hawaii Grade 4 (1600 hours in conventional treatment plus 1600 hours membrane filtration plus 2 years of chemical addition)

ATTACHMENT 3
CEU DECISIONS
8-23-2023

Hawaii Courses

- 1 **CVU-101/201**
11/15-17/22
Cla-Val University
18.0 Contact Hours
1.8 CEUs
Topics included:
 - Maintenance, Repair, and Troubleshooting
 - 90 Series Pressure Reducing Valves
 - 50 Series Pressure Sustaining/Relief Valves
 - 136 Series Solenoid control Valves
 - 124 Series Float Control Valves
 - 92 Series Pressure Reducing and Pressure Sustaining Valves
 - 210 Series Altitude Valves
 - Powercheck and Powertrol Main Valves
 - 60 Series Pump Control Valves
 - 61 Series Pump Control Valves

- 2 **Let's Talk Lead: New LCRR Communications Tools to Strengthen Public Trust**
12/2/22
AWWA
1.5 Contact Hours
0.15 CEUs
In this webinar, AWWA's new Lead Communications Guide and tools will be discussed to help participants review the guidance and develop effective communication strategies to meet the LCRR requirements and strengthen public trust.

- 3 **LCRR Data: Collect and Submit Your SLI to Your State Agency**
12/14/22
120Water
1.0 Contact Hours
0.1 CEUs
This webinar will share how utilities can submit their preliminary service line inventories to their state agency under LCRR using 120Water product features.

- 4 **How to Use Effective Utility Management Framework to Improve Your Utility Confirmation**
2/1/23
AWWA
1.5 Contact Hours
0.15 CEUs
This webinar will describe how to use the Effective Utility Management framework, including the organizational self-assessment tool and measures to track progress. First-hand accounts of how the framework has been used will be presented.

- 5 **2023 HRWA Conference**
5/24-25/23
HRWA
1 session at 45 minutes for 0.075 CEUs
(in addition to the 21 sessions approved on 5/23/23)
45-minute drinking water sessions for full credit:
 - Cybersecurity 10145-minute drinking water sessions for no credit:
 - Math Lab - workshop for math help only

ATTACHMENT 3
CEU DECISIONS
8-23-2023

6 **To Inventory and Beyond**

5/2,9,16,23/23

120Water

4.0 Contact Hours

0.4 CEUs

Topics included:

- Verification methods and best practices in inventory
- Best practices for the planning and execution of replacement
- Best practices and solutions for tackling lead in schools and childcare facilities
- 120Water software for inventory

7 **An Introduction to PFAS Analytic**

6/1/23

US EPA

1.0 Contact Hours

0.1 CEUs

This training webinar will provide an overview of the PFAS Analytic Tools and a tutorial on how to use them. The tools integrate datasets into an interactive, web-based software to filter data by PFAS or geographic area.

8 **Bipartisan Infrastructure Law**

6/27/23

US EPA

1.0 Contact Hours

0.1 CEUs

Topics included:

- EPA Water Technical Assistance Opportunities
- Supporting the Selection and Implementation of Technologies to Remove PFAS from drinking Water and from Treatment Residuals
- Applied Research and Technical Assistance Project on Lead Service Line Identification Technologies

9 **Wildfire Impacts on Drinking Water**

7/25/23

US EPA

1.0 Contact Hours

0.1 CEUs

Topics included:

- Wildfire Implications for Drinking Water Systems
- Wildfires Can Increase Drinking Water Contamination: Nitrate, Arsenic, and Disinfection Byproducts

10 **Vibration Corrective Action Strategies for Pumping Systems**

8/1/23

Hydraulic Institute

1.0 Contact Hours

0.1 CEUs

This webinar provides an informative methodology for troubleshooting excessive vibration in newly installed and existing pumping equipment as well as to identify the source of the vibration and provide corrective action strategies to resolve those vibration issues

11 **Cybersecurity**

8/29/23

US EPA

1.0 Contact Hours

0.1 CEUs

Topics included:

- Tools and Resources to Help Your Small System Build Cyber Resilience
- Water Distribution System Operational Technology Cybersecurity Research at the Water Security Test Bed

ATTACHMENT 3
CEU DECISIONS
8-23-2023

Repeating Courses

12 Excavation & Trenching: Competent Person

Safety Intelligence Institute This competent person level course covers the OSHA 1926 Subpart P Excavation and trenching Standard, ANSI A10.12 and EM 385-1-1 Section 25. This course emphasizes Best Practices to enable supervision to plan for and implement safe and productive excavation activities efficiently.
8.0 Contact Hours
0.8 CEUs

13 Groundwater Treatment Techniques

RCAC Topics include:
2.0 Contact Hours
0.2 CEUs

- Treatment for the seven most common groundwater contaminants
 - Microbial contaminants (bacteria and virus)
 - Iron and manganese
 - Arsenic
 - Nitrate
 - Uranium
 - Organics
 - VOCs
 - SOCs
 - Hydrogen sulfide

14 Preparing for a Sanitary Survey

RCAC Topics include:
2.0 Contact Hours
0.2 CEUs

- What a sanitary survey entails
- Benefits of conducting your own sanitary survey to provide safe drinking water to your customers
- Sanitary survey requirements in the Groundwater Rule
- How to access resources to help you prepare

15 Mapping Small Water Systems with Free Google Earth Pro Desktop

RCAC Topics include:
2.0 Contact Hours
0.2 CEUs

- Basic tools of Google Earth needed to map water system assets
- How to import scanned maps and handheld GPS coordinates
- How to derive water main pipe lengths project planning and cost estimating
- How to edit, save and share Google Earth maps

16 Trenching, Excavation, and Pipefitting Safety Refresher

HRWA Topics include:
1.0 Contact Hours
0.1 CEUs

- Competency
- Regulations
- Preparations for Excavation
- Trenching
- Shoring
- Shoring Removal

ATTACHMENT 3
CEU DECISIONS
8-23-2023

Correspondence/Online Courses

17 Operational Measures for Resiliency

AWWA eLearning
1.0 Contact Hours
0.1 CEUs

This course outlines the main messages of AWWA's G430 Standard and highlights the importance of a security culture. This course was designed for small systems looking to increase their understanding of security practices. It provides a 2-page filed guide for a small system to evaluate resiliency of its assets.

18 ABS Turbo Blowers

360water
1.0 Contact Hour
0.1 CEUs

Topics include:

- An introduction to the blowers at the plant and how they work
- A description of the main components
- Safety procedures that must be followed when working around the blowers
- Operational procedures for the blowers and control system
- Maintenance procedures for the blowers
- A troubleshooting guide to diagnose system faults and correct them

19 Aerzen Blowers

360water
1.0 Contact Hour
0.1 CEUs

Topics include:

- The function of the blowers within the plant, as well as their components
- Safety instructions and precautions for the blowers and their components
- Operating instructions for the blowers
- Maintenance intervals and instructions for the blowers
- Troubleshooting instructions

20 Andritz Fine Screens

360water
1.0 Contact Hour
0.1 CEUs

Topics include:

- The components of the screens and how they function to remove screenings
- The best safety precautions to take while working on or around the equipment
- Normal operation of the machinery, including start up and control panel sequences
- Preventative maintenance, lubrication, and corrective maintenance
- Troubleshooting for the motor reducers, for the motors, and for general problems

ATTACHMENT 3
CEU DECISIONS
8-23-2023

21 **Brentwood SedVac Sludge Removal**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- Introduction the SedVac Sludge Removal Systems and its components
- Safety considerations when working on or around the equipment
- Operation and controls for the SedVac system
- Preventative maintenance for the system
- Troubleshooting scenarios and corrective actions

22 **Chemco Lime Slakers Course 1**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- An introduction to the Lime Slakers and how they work
- Safety procedures to follow while working on or around the equipment
- Operation of the Lime Slaker system, including system startup and slaker operation

23 **Chemco Lime Slakers Course 2**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- An introduction to the Lime Slakers and how they work
- Safety procedures to follow while working on or around the equipment
- Maintenance of the system and its individual components
- Troubleshooting for common issues that may arise during normal operation

24 **Cummins Emergency Generator Set Course 1**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- Plant location and generator overview
- Components: the alternator, engine, and cooling system
- Safety items: fuel and fumes, exhaust gases, and electrical shock
- Operations procedures: prestart checks, control panel, and starting
- Troubleshooting information: fault codes, warning, and shutdown codes

25 **Cummins Emergency Generator Set Course 2**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- Plant location and generator overview
- Components: the alternator, engine, and cooling system
- Safety items: fuel and fumes, exhaust gases, and electrical shock
- Maintenance items: maintenance schedule, general inspection, and lubrication system

ATTACHMENT 3
CEU DECISIONS
8-23-2023

- 26 **Eimco Clarifiers**
360water
1.0 Contact Hour
0.1 CEUs
- Topics include:
- Essential information relating to the equipment
 - Operation, maintenance, and troubleshooting
 - Users will be able to examine the various related components, such as the motors and gear reducers
 - Users will understand the startup requirements for these units, as well as maintenance procedures such as drive lubrication and condensate removal
 - Troubleshooting scenarios as well as safety procedures like assessing and removing stored energy in the system
- 27 **Fairbanks Morse VT Raw Water Pumps**
360water
1.0 Contact Hour
0.1 CEUs
- Topics include:
- An overview of the pump system and how it functions
 - The components of the raw water pumps
 - Safety information regarding the system
 - Operation and Maintenance instructions for the pumps and components
 - Troubleshooting information with problems and their corresponding solutions
- 28 **FDI dynaBLEND Polymer Feed System**
360water
1.0 Contact Hour
0.1 CEUs
- Topics include:
- An overview of the system and the major components
 - Important safety information
 - Controls and operation procedures
 - Maintenance intervals
 - Troubleshooting scenarios and solutions
- 29 **Gardner Denver Blowers**
360water
1.0 Contact Hour
0.1 CEUs
- Topics include:
- The structure and function of the working components of the Gardner Denver Blower
 - Operation, including how to start and stop the unit
 - Maintenance, including proper upkeep for the unit
 - Troubleshooting scenarios with possible solutions in order to minimize downtime for the equipment
- 30 **Gardner Denver Multi-Stage Blower**
360water
1.0 Contact Hour
0.1 CEUs
- Topics include:
- The purpose of the blower and the major components
 - Important safety information while working with the equipment
 - Operation and maintenance procedures
 - Troubleshooting information

ATTACHMENT 3
CEU DECISIONS
8-23-2023

31 **Gas Detector**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- An overview of the gas detector and its applications
- A description of the hazardous substances monitored by the gas detector
- Safety precautions employees must take while using the gas detector
- The major components of the gas detector and its screen display
- The basic operation and sampling procedures
- The importance of calibration
- The alarms associated with each monitored substance

32 **Heat Stress Safety**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- An introduction to heat stress, heat illness, and heat acclimatization
- Planning and supervision that could lessen heat stress among workers
- The types of heat-related illnesses and the first aid to address them
- Prevention of heat-related illnesses
- How to recognize heat-related hazards
- Personal risk factors that affect response to heat stress
- Standards related to heat stress

33 **IDI Solids Contact Clarifiers**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- The purpose of clarifiers and theory of operation
- An overview of the clarifier system and its major components
- Safety precautions to follow while working on or around the clarifiers
- Operational procedures for the clarifiers and accessories
- Maintenance procedures to keep the equipment in good, working condition
- Basic troubleshooting for common issues that may arise during operation

34 **Integrity Fluoride Feed System**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- An Introduction to the Fluoride Belt Feeder System
- A Components section which describes the main components of the belt feeder and solution tank system
- Safety precautions to follow when working on or around the system
- Operational procedures for the belt feeder, solution tank, and other ancillary components
- Maintenance procedures for the system
- A Troubleshooting guide to identify problems, causes, and solutions for the system

ATTACHMENT 3
CEU DECISIONS
8-23-2023

35 **JMS Horizontal Paddle Wheel Flocculator**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- How the flocculators work and their major components
- Safety precautions to keep in mind when working on or around the flocculators
- Operation of the flocculators, including startup and shutdown
- How to maintain the flocculators, including lubricating the motor and gear reducer
- Troubleshooting scenarios for issues that may arise

36 **Leopold Biologically Active Filters and GAC Media**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- A brief history of water filtration
- The main components of the system
- The main operating procedures and controls for the filter
- What alarms are most common and how to reset them
- What maintenance procedure to perform on the filter and how often to perform them

37 **Ozonia Off Gas Destruction System**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- An overview of ozone and how it is used
- An overview of how the off gas destruction system works
- Details of each off gas destruction system component
- Safety precautions while working with the equipment
- Operations and maintenance procedures
- Troubleshooting scenarios and possible solutions

38 **Ozonia Ozone Injection System**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- An introduction to ozone and how it is generated
- The purpose and function of the major system components
- Safety precautions while working with ozone and the equipment
- Startup, shutdown, and other operation procedures
- Required preventative maintenance procedures
- Common troubleshooting scenarios with corrective actions

39 **Pall Pressure Membrane Filtration System**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- The basic design and function of the filtration system
- The purpose and function of each major component
- Safety precautions while working with the equipment
- Pre-startup checks, operating procedures, and shutdown procedures
- Preventative maintenance tasks and recommended inspections
- Troubleshooting scenarios and alarm response procedures

ATTACHMENT 3
CEU DECISIONS
8-23-2023

40 **Peerless Split Case Centrifugal Pump**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- An introduction to the equipment followed by a description of the components.
- A safety section
- Procedures operating the equipment
- A maintenance section
- Troubleshooting with possible causes and remedies

41 **Pentair Horizontal Split Case Pumps**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- How these pumps tend to be used
- What components make up the pumps
- Safety precautions to use when working on or around the pump
- Some of the most common maintenance procedures that are needed to be performed on the pump such as assembly and disassembly

42 **Philadelphia Mixing Flocculators**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- An introduction to the mixers and their components
- Safety information regarding the equipment
- Operation and maintenance procedures
- Lubrication points on the mixer units
- Troubleshooting scenarios that may arise with the equipment

43 **Severn Trent Chlorine Induction Units**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- Function, operating principles, and components of the units, as well as associated equipment
- Safety principles to follow when working with the units and associated equipment
- Operation of the units and associated equipment
- Maintenance tasks for the units and associated equipment
- Troubleshooting scenarios and solutions

44 **Siemens Chlorinator**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- The purpose and function of the chlorinator
- General equipment safety procedures
- Safety procedures specific to working with chlorine gas
- Operation and maintenance procedures
- Troubleshooting the equipment

ATTACHMENT 3
CEU DECISIONS
8-23-2023

45 **Trojan UV System Course 1**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- Overview of the UV system including UV theory
- Startup and shutdown of the UV system
- How to navigate the PLC screens
- Descriptions of the PLC screens

46 **Trojan UV System Course 2**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- A review of the UV theory and system
- A recommended preventative maintenance schedule
- Maintenance procedures for the UV intensity sensor such as inspecting the sensor
- UV lamp and quartz sleeve inspection and cleaning
- What to do if moisture gets in the lamp driver enclosure and other UV module troubleshooting scenarios

47 **Watson-Marlow Hypochlorite Metering Pumps**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- An overview of the pump with pump components
- Safety procedures to follow while working on or around the equipment
Operation of the pumps, including start-up, automatic, and manual operation
- Maintenance procedures
- Troubleshooting for common issues that may arise

48 **Watson-Marlow QDOS Peristaltic Chemical Metering Pumps**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- Where and how the pumps are used at an example installation
- The components that make up the pumps
- Which safety precautions to take when working on and around the pumps
- How to operate the equipment such as the keypad functions
- The maintenance procedures, such as removing and replacing the pumphead
- Basic troubleshooting procedures and errors

49 **Wedeco Ozone Generators**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- An introduction to the ozone generators and how they work
- Safety procedures to follow while working on or around the generators and ozone
- Operation of the ozone generators and navigating the HMI screens
- Maintenance for the ozone generator components
- Troubleshooting for common errors that may arise

ATTACHMENT 3
CEU DECISIONS
8-23-2023

50 **Wedeco UV Reactors**

360water

1.0 Contact Hour

0.1 CEUs

Topics include:

- What the UV Reactors do and the major components of the system
- Safety procedures to follow while working on or around the equipment
- An overview of operational principles about how UV light is used for disinfection
- Maintenance of the UV Reactors, including inspections and various types of cleaning

51 **IS-5.A An Introduction to Hazardous Materials**

FEMA

10 Contact Hours

1.0 CEUs

Topics include:

- Health and Environmental Regulations
- Hazardous Materials Identification Systems
- Identifying Hazardous Materials
- Hazardous Materials and Human Health
- Preparing for Hazardous Materials Incidents

ATTACHMENT 3
CEU DECISIONS
8-23-2023

Mainland Courses

52 2023 ABPA International Conference

5/8-10/23

ABPA

**28 sessions at 45 minutes
each for 0.075 CEUs each
1.5 CEUs max**

Topics included:

- Legal Liabilities of Cross Connection Control Program Administrators, Testers & Water Users
- Professional Certifications of Testers and CCC Specialists
- How California Developed a CCC Program Policy Handbook
- Model Plumbing Codes and Backflow Protection
- Is Backflow Really About Hydraulics?
- Cross Connection Control Dangers with Recycled Water Systems
- Tester & Administrator Relationships and your Cross Connection Control Program
- Backflow Incident Response: Are You ready?
- Are Your Testers Really Testing Properly?
- What's Behind Your Field Test Kit Results?
- Fire Pumps & Assembly Installation Concerns
- Fire System Maintenance & Backflow Preventers
- CCC Programs - A Legal Review of Your Authority
- Technology to Improve Your CC Program
- Lead Service Line Compliance Can Improve Your CCC Program
- Permit-Required Confined Space Safety
- Tester Certification Exam - Are you Ready?
- Performance Exam Proctors - Who Are They?
- Double Check Valve Field Test Procedures
- Pressure Vacuum Breaker Field Test Procedures
- Spill Resistant Pressure Vacuum Breaker Field Test Procedures
- Reduced Pressure Principle Backflow Prevention Assembly Field Test Procedures
- Assembly Repair - Things Have Changed Part 1
- Assembly Repair - Things Have Changed Part 2
- Australian Plumbing Code & Hazard Identification Tools
- Public Relations and Your CCC Program
- Steps to Develop a Municipal CCC Program
- Overhauling an Existing CCC Program