

# **2025 Spring Lake Erie Water Users Group Operator Certification and Resiliency Update**

May 8, 2025  
Amy Klei



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# Operations, Resiliency, and Certification Section



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# Housekeeping Item

## 2024 Renewals

- As of May 5, 2025, 481 operators have yet to renew their certificates.
- Please submit as soon as possible because certificates will go invalid on June 30, 2025.
- 2025 renewals will start on August 1, 2025.



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# Purpose of OAC Rule 3745-7

To ensure the availability of a safe and adequate supply of public drinking water and protect public health and the environment from untreated/poorly managed sewage. The rules help achieve this purpose by ensuring PWSs, treatment works and sewage systems have the appropriate staffing with the technical expertise to operate and oversee the system.



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# Who do these rules affect?

- Public Water Systems
- Wastewater Works
- Utility Owners
- Professional Operators
- Consultants
- Contract Operators/Operations Companies
- Training Providers
- Environmental Organizations
- State Agencies
- Businesses
- U.S. EPA
- Other States and Territories
- **All Ohio Citizens**



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# Operator Certification Rules Review

- Allowances for federal holidays
- 20% exception during weeks with a federal holiday
  - Not under formal enforcement
- ORC/backup can respond in person within one hour

PWS and Wastewater Works Classification	ORC Minimum Staffing Requirements		
	Normal Requirement	Days required in a holiday week	Hours required in a holiday week
Class 2	5 days per week for a minimum of 20 hours per week	4	16
Class 3 and Class 4	5 days per week for a minimum of 40 hours per week	4	32

Distribution and Collection System Classification	ORC Minimum Staffing Requirements	
	Normal visit requirement	Visit requirement in a holiday week
Class 1	3 visits per week	3 visits per week
Class 2	5 visits per week	4 visits per week



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# Operator Certification Rules Review

- Allowances for Class III and IV plants to include off-site meetings related to operations and administration of PWS
  - 10% of staffing requirement
  - The following conditions must be met:
    - Not under formal enforcement
    - ORC/backup can respond in person within an hour
    - Record meeting in logbook
    - No minimum staffing reduction approved
- An operator can now test for the Class III without operating experience (OIT)



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# Operator Certification Rules Review

- Facility-specific certification – Class III and IV facilities only
  - Designed for operators that do not meet normal eligibility requirements
  - Certification of ability by ORC or certified professional operator in management
  - Appropriate amount of experience in the 25% category
  - Pass appropriate level exam
  - Can act as a backup provided the ORC certifies ability
  - Can be converted to a professional operator certification with operating experience
  - Facility specific certificates do not supersede professional operator certificates



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# Operator Certification Rules Review

- Reducing the operating experience requirement for Class II, III, and IV certificates by one year
  - Class II – 24 months
  - Class III - 48 months
  - Class IV – Class III certificate and 2 years of management experience at a Class III or IV plant.
- Reciprocity
  - Guarantee at least a Class A provided experience requirement met
  - Potential for higher based on experience in the other state



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# Courses Approved For Operating Experience Credit

- Ohio EPA significantly increased the months of experience credit you receive upon completion of CSUS correspondence courses.

[Factsheet available](#)



<i>Operation of Wastewater Treatment Plants, Volume 2</i>	Prior to December 2009	3.0
	December 2009 – Sept 2022	2.4
	October 2022 – Present	6.0
<i>CSUS Industrial Waste Treatment, Volume I</i>	Prior to December 2009	3.0
	December 2009 – Sept 2022	2.4
	October 2022 – May 2023	6.0



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# Exams



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# Exams

- Exams are being given by our third-party exam provider Water Professionals International (WPI)(formerly ABC)
- Preparation is the same - use the Need-to-Know criteria and reference materials
- Ohio EPA exam preparation training coming soon



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# Preparing for Exams

- How to prepare
  - Need to know criteria
  - References
- What not to do
  - Do not use question sets as your only study method
- Training Programs

## WPI/ABC Need To Know Criteria

Please note that the title on WPI's Need to Know Criteria may be a different exam level than the Ohio EPA certification you are seeking. When you are applying through WPI's provider, once you select Ohio EPA certification, you will select the Ohio EPA certificate level you are seeking and the appropriate WPI test is selected.

- [Class 1 Water Distribution](#)
- [Class 2 Water Distribution](#)
- [Class A Water Supply](#) (see Drinking Water Class A)
- [Class 1 Water Supply](#)
- [Class 2 Water Supply](#)
- [Class 3 Water Supply](#)
- [Class 1 Wastewater Collection](#)
- [Class 2 Wastewater Collection](#)
- [Class A Wastewater Treatment](#)
- [Class 1 Wastewater Treatment](#)
- [Class 2 Wastewater Treatment](#)
- [Class 3 Wastewater Treatment](#)

## WPI/ABC Reference Material

- [Water Supply](#)
- [Water Distribution](#)
- [Wastewater Treatment](#)
- [Wastewater Collection](#)



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# WPI Exams

- WPI has finished developing their new exams
- Ohio EPA is currently reviewing their new exams
  - Updated exam database and questions
  - Updated Need-to-Know criteria coming out soon

We will do a blast notification prior to switching to the new exams.



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# Cybersecurity



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Number of Characters	Numbers Only	Lowercase Letters	Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters	Numbers, Upper and Lowercase Letters, Symbols
4	Instantly	Instantly	3 secs	6 secs	9 secs
5	Instantly	4 secs	2 mins	6 mins	10 mins
6	Instantly	2 mins	2 hours	6 hours	12 hours
7	4 secs	50 mins	4 days	2 weeks	1 month
8	37 secs	22 hours	8 months	3 years	7 years
9	6 mins	3 weeks	33 years	161 years	479 years
10	1 hour	2 years	1k years	9k years	33k years
11	10 hours	44 years	89k years	618k years	2m years
12	4 days	1k years	4m years	38m years	164m years
13	1 month	29k years	241m years	2bn years	11bn years
14	1 year	766k years	12bn years	147bn years	805bn years
15	12 years	19m years	652bn years	9tn years	56tn years
16	119 years	517m years	33tn years	566tn years	3qd years
17	1k years	13bn years	1qd years	35qd years	276qd years
18	11k years	350bn years	91qd years	2qn years	19qn years

# TIME IT TAKES A HACKER TO BRUTE FORCE YOUR PASSWORD IN 2024

Hardware: 12 x RTX 4090  
Password hash: bcrypt



> Learn more about this at [hivesystems.com/password](https://hivesystems.com/password)



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# Security

- Heightened awareness of water and wastewater plant security
- Increased attacks on America's infrastructure
  - U.S. EPA and the Cybersecurity and Infrastructure Security Agency (CISA) are warning of high risk due to global tensions
- Resources:
  - Implementing a cybersecurity program  
[\*epa.ohio.gov/static/Portals/28/documents/security/CyberSecurity.pdf\*](https://epa.ohio.gov/static/Portals/28/documents/security/CyberSecurity.pdf)
  - Updates on vulnerabilities and reporting attacks – CISA  
[\*waterisac.org\*](https://waterisac.org)
  - What to do if you are attacked – Department of Justice  
[\*justice.gov/criminal-ccips/file/1096971/download\*](https://justice.gov/criminal-ccips/file/1096971/download)



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# Free Cybersecurity Assessment and Technical Assistance

Cybersecurity is a broad term that refers to the security of computer network infrastructure and data. A cyber attack is an attempt to undermine or compromise the function of a computer network or system, or an attempt to track the online movements of individuals without their permission.

## What is the assessment and technical assistance?

With the U.S. Environmental Protection Agency, Horsley Witten Group (HWG) is offering free, confidential, cybersecurity assessments and technical assistance to interested water and wastewater utilities. The assessment consists of a questionnaire completed with HWG staff, and the technical assistance consists of developing a cyber action plan based on the results of your utility's assessment focused on best practices to prepare for, respond to, and recover from a cyber incident. Adoption of these practices can reduce the likelihood that a cyber attack will be successful and allow the utility to recover from any cyber attacks faster and at a lower cost. Due to the COVID-19 pandemic, HWG is offering this assessment and technical assistance virtually.

## What are the expected outcomes?

All individual utility information gathered during the assessment will be protected and remain confidential. Trends in the anonymized, aggregated data will be shared with other utilities and agencies so that lessons learned from the assessments may benefit all.

Participating utilities can expect to receive a straightforward overview of their vulnerabilities and suggested best practices to reduce risks to their business enterprise, SCADA, and communications systems. Additionally, the utility will develop their cyber action plan with HWG and work to implement any recommended best practices.

## What does the utility need to prepare before the assessment and technical assistance?

The assessment will require input from management, IT, operations/control staff and engineers as appropriate. The utility will also need to compile and provide any existing system documentation/diagrams, policies, and procedures.

## Is there any follow-up?

Yes, HWG will contact the utility on two separate occasions after the development of the cyber action plan to gauge progress and see if additional assistance is required.

## How does my utility participate?

To date, we have worked with over 100 utilities across the United States providing free cybersecurity technical assistance. EPA plans to expand the program as resources allow. We are continuing to register interested utilities at the link below. If you would like more information about the program, contact Gemma Kite at [gkite@horsleywitten.com](mailto:gkite@horsleywitten.com), or (508) 833-6600.

To register your utility, please visit:  
[www.horsleywitten.com/cybersecurityutilities](http://www.horsleywitten.com/cybersecurityutilities)

# U.S. EPA offers free, confidential, cybersecurity assessments and technical assistance for interested Water and Wastewater Utilities

## Register Your Utility



[epa.gov/waterriskassessment/forms/  
epas-water-sector-cybersecurity-  
evaluation-program](http://epa.gov/waterriskassessment/forms/epas-water-sector-cybersecurity-evaluation-program)

# Resources



[\*epa.ohio.gov/divisions-and-offices/drinking-and-ground-waters/public-water-systems/security-and-emergency-preparedness\*](https://epa.ohio.gov/divisions-and-offices/drinking-and-ground-waters/public-water-systems/security-and-emergency-preparedness)



[\*epa.gov/waterresilience/epa-cybersecurity-water-sector\*](https://epa.gov/waterresilience/epa-cybersecurity-water-sector)



[\*cisa.gov/shields-up\*](https://cisa.gov/shields-up)



[\*cisa.gov/cyber-hygiene-services\*](https://cisa.gov/cyber-hygiene-services)



Water ISAC (water Infrastructure security network)  
[\*waterisac.org\*](https://waterisac.org)



Dragos Free Community Defense Program Registration  
[\*dragos.com/community-defense-program/registration/\*](https://dragos.com/community-defense-program/registration/)

# Cyber Ohio Coordination

- Cyber Ohio is using the Ohio Cyber reserves to conduct free cyber assessments
  - Using results of last year's cyber survey
  - The Cyber reserves are reaching out to facilities.



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# Future Activities

- Ohio EPA hoping to receive money in this year's budget to initiate a grant program for fixing vulnerabilities identified during assessments.
  - \$2 million in the first year
  - \$8 million in the second year.



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# Important Cyber Considerations

- Change default passwords on new or old equipment
- Segment networks. Keep plant network separate from downtown and other networks.
- Update software with patches.



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# Important Items to consider to help mitigate a cyber attack

- Ability to run system on emergency power
  - Practicing
- Ability to run facility manually
  - Exercising



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#### Advisory Council

Provides guidance and input to Ohio's water and wastewater operator certification program.



#### Announcements



#### Career Information



#### Contract Operators

Lists or forms you may need as a contract operator, an owner of a contract operating company or a system in need of an operator.



#### Exam information

Third Party Exam scheduling, reference material and Need-to-Know criteria, Class IV information, and Class A



#### Forms and Resources



#### Operator Certification Enforcement Actions

Enforcement actions have been taken as a result of violations of the operator certification rules.



#### Operator

Services, lists, or forms you may need as an operator, or to become an operator.

# Certified Operator Website



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# Required Operator Training

[Stay Compliant](#)[Make a Difference](#)[Monitor Pollution](#)[Get Funding](#)[Find Regulations](#)[? Help](#)[Q Search](#)

[Ohio EPA](#) / [Divisions & Offices](#) / [Drinking & Ground Waters](#) / [Certified Operators](#)

## Drinking & Ground Waters

[Welcome](#)[Announcements](#)[About DDAGW](#)[Programs](#)[Certified Operators](#)[Guides & Manuals](#)[Engineering and Plan Approval](#)[Public Water Systems](#)

## Certified Operators

Certified water and wastewater operators are essential for the protection of public health and the environment. Ohio EPA's Operator Certification program has certified more than 12,000 operators, ensuring public water and wastewater systems are operated by properly trained and qualified individuals.

[Learn how to become a certified water or wastewater operator.](#)

To submit an Ohio EPA Paper and Pencil exam, renewal, third party certification or reciprocity application(s) please visit the [Ohio EPA eBusiness Center webpage](#). For instructions to utilize the eBusiness Center please view the instructions below under the Operator tab.

**REQUIRED TRAINING:** Starting Aug. 15, 2018, all applicants will need to review the training document below prior to submitting the Ohio EPA exam, third-party exam certification, reciprocity and renewal applications and Operator-in-Training forms. This document will be updated periodically to reflect the current rules, regulations and policies.

**RENEWAL GRACE PERIOD:** The operator renewal application grace period has been reduced to 6 months. A complete renewal application must be received by June 30 of the year following your expiration date. If a complete renewal application is not received by June 30 of the year following your expiration date, you must re-take the examination to be certified.

[Ohio EPA Professional Operator Certification Training](#) - Updated Jan. 5, 2022

**OP CERT HOTLINE**

[866-411-6728](tel:866-411-6728)

[opcert@epa.ohio.gov](mailto:opcert@epa.ohio.gov)

# Required Operator Training

## Ohio Environmental Protection Agency Operator Rules & Requirements

### Required Training

This training is required prior to signing any operator certification application.



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# Items of Note

- Reporting minimum staffing times
- Logbook information
- Must still meet minimum staffing time in weeks with holidays
- Contract operator rule
- Cybersecurity basics
- As rules change within the program, highlights will be added



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# Career Information

- Updated job boards
- Improved veteran information and outreach
- Provide links to apprenticeship, associate degrees, and certificate programs



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# Questions, Comments, or Concerns



# Thank You

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