

# Operator Certification Program Annual Report

January 1, 2020 – December 31, 2020



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## **Introduction**

This annual report is prepared by the Rhode Island Department of Health (RIDOH), Center for Drinking Water Quality. The report covers the period of January 1, 2020 through December 31, 2020. It is prepared in fulfillment of the requirements of the Safe Drinking Water Act and presented to the Environmental Protection Agency (EPA), Region 1, Operator Certification Program Office.

This report details the State of Rhode Island's compliance with the nine major program components outlined in the guidelines for the certification and recertification of operators of community and non-transient, non-community public water systems. The State continues to ensure that public health objectives are met by the Operator Certification Office.

## Authorization

The State of Rhode Island, Board of Certification of Operators of Public Water Supply Treatment and Public Water Supply Transmission and Distribution Facilities (Board), amended the Rules and Regulations Pertaining to the Certification of Operators of Public Water Supply Treatment and Public Water Supply Transmission and Distribution Facilities (Rules and Regulations), during the reporting period. The following regulations were added to allow continuity of operations during emergencies:

- In the event of a State of Emergency declared by the governor pursuant to R.I. Gen. Laws § 30-15-9, the Board may grant an extension beyond the six (6) month grace period for a license that expired during the State of Emergency
- During the pendency of a State of Emergency declared by the governor pursuant to R.I. Gen. Laws § 30-15-9, the superintendent (designated operator) may continue with his or her duties as operator in-direct-responsible charge of a public water system past the expiration date of his or her license.
- During a State of Emergency declared by the governor pursuant to R.I. Gen. Laws § 30-15-9, an operator of a lower classification than that required in §§ 5.5(A) and (B) of this Part may take over the responsibilities of the superintendent, assistant superintendent, or an operator in charge of a shift.  
The decision as to who would take over any of these roles shall be made by the superintendent unless the superintendent is unable to fulfill his or her superintendent duties due to circumstances that arise from the State of Emergency. In the event the superintendent is unable to fulfill his or her duties, the most senior person with the highest-level operator classification shall make the decision.
- Public water systems operated by licensed contract operators who are unable to fulfill their duties due to circumstances that arise from the State of Emergency, must make every attempt to find another contract operator of an appropriate level of certification. If another contract operator is not available to provide its services, the owner may engage other professionals, including but not limited to town officials, professional engineers, licensed plumbers, and licensed water filtration/treatment system installers, to serve as an operator. Notwithstanding the foregoing, the owner maintains responsibility for the system.
- Full certificates may be issued, upon application, without examination, in a comparable classification to any individual who holds a certificate issued by any state, territory or possession of the United States, any country, if in the judgment of the Board, the requirements for certification of operators under which such certification was issued are equivalent to the requirements of this Part.  
Notwithstanding the foregoing, in the event of a State of Emergency declared by the governor pursuant to R.I. Gen. Laws § 30-15-9, the Board shall delegate to the Director the duty to determine whether the requirements of another state, territory, or possession of the United States for certification of operators is equivalent to the requirements of this Part.
- In the event of a State of Emergency declared by the governor pursuant to R.I. Gen. Laws § 30-15-9, the Board may grant a six (6) month provisional certification to those operators who have retired within the previous five (5) years. The six (6) month provisional certification shall be at the same grade that the operator held at the time of retirement.

The Board amended regulations to allow for an Operator of a lower classification than is typically required to assume the responsibilities of an operator in charge during a State of Emergency declared by the Governor. The most senior Operator available at a public water system (PWS) is responsible for implementing this flexibility, and

the PWS is responsible for notifying the Board and the Director of Rhode Island Department of Health (Director), in writing, within 24 hours of implementing this flexibility. The Board continues to meet quarterly to review the applicability and suitability of the Rules and Regulations.

## Classification of Systems, Facilities, and Operators

There are 93 community and 81 non-transient, non-community public water systems that are required to comply with the State's operator certification rules and regulations.

The State has five system classification levels for both treatment facilities and distribution facilities: Very small system (VSS), Class 1, Class 2, Class 3, and Class 4, with Class 4 being the largest and most complex. Water supply treatment facilities are classified according to a point system incorporating size, water supply source, raw water quality and associated treatment, disinfection, sludge/backwash water disposal, laboratory control, and chemical and physical considerations. Water supply distribution systems are classified according to the population served.

Community Systems by Classification	
D1	4
D2	13
D4	1
T1	1
T1/D1	1
T1/D2	7
T1/D3	5
T1/D4	2
T1/VSSD	10
T2/D1	1
T2/D3	1
T2/VSSD	1
T3/D2	3
T3/D3	1
T3/D4	1
T4/D4	4
VSS	26

NTNC Systems by Classification	
D1	9
D2	1
T1	3
T2	1
T1/D1	5
T1/D2	3
T1/VSSD	8
VSS	36

## Classification of Systems, Facilities, and Operators

In total, 746 licenses for treatment and distribution operators were issued in the State in 2020, with some individuals holding multiple licenses and certifications.

### Drinking Water Operators, by License Type, 2020

License Type	License Count
DO Class 1-Full	114
DO Class 1-Grandfathered	18
DO Class 1-Operator in Training	25
DO Class 2-Full	74
DO Class 2-Grandfathered	1
DO Class 2-Operator in Training	7
DO Class 3-Full	99
DO Class 3-Grandfathered	0
DO Class 3-Operator in Training	4
DO Class 4-Full	43
DO Class 4-Grandfathered	1
DO Class VSS-Full	32
DO Class VSS-Grandfathered	18
DO Class VSS-Operator in Training	2
DO Provisional	1
<b>Total</b>	<b>439</b>

License Type	License Count
TO Class 1-Full	85
TO Class 1-Grandfathered	7
TO Class 1-Operator in Training	9
TO Class 2-Full	73
TO Class 2-Grandfathered	4
TO Class 2-Operator in Training	5
TO Class 3-Full	67
TO Class 3-Grandfathered	1
TO Class 3-Operator in Training	8
TO Class 4-Full	28
TO Class 4-Grandfathered	1
TO Class VSS-Full	12
TO Class VSS-Grandfathered	5
TO Class VSS-Operator in Training	2
TO Provisional	0
<b>Total</b>	<b>307</b>

## **Classification of Systems, Facilities, and Operators**

Rhode Island requires that owners of all community and NTNC PWS place the direct supervision of their treatment and/or distribution facilities under the responsible charge of a suitably certified drinking water operator. The operator must hold a valid certification equal to or greater than the classification of the PWS.

There were no community or NTNC PWSs without a certified operator at the time of data compilation.

If a PWS does not have a certified operator as required by the State due to circumstances beyond their reasonable control, the system may submit a request to the Board of Certification of Operators of Public Water Supply Treatment and Public Water Supply Transmission and Distribution Facilities to seek provisional certification for a candidate. The Board can issue provisional certification after reviewing the candidate's credentials, which only applies to that particular PWS for one year. The State reviewed and approved provisional certification for one operator during this reporting period.

The RIDOH Center for Drinking Water Quality works diligently to ensure that each PWS has an appropriately certified operator at all times. The system owner updates any changes to the designated certified operator or confirms that no changes have been made each year at PWS license renewal. The Center for Professional Licensing checks to ensure that the operator's license is active and current. The sanitary survey team verifies or updates the designated certified operator at the time of the on-site inspection. The Center for Drinking Water Quality's data management team performs quarterly audits to ensure that each PWS with a certified operator requirement has an appropriate, active certification.

If DWQ learns that a PWS does not have an appropriately and actively certified operator through any of the channels outlined above, the office sends a letter informing the PWS of the requirement and giving a ten-day timeline for updating this information. If the PWS hires a contract operator, they must also provide a fully executed and signed contract. Should the PWS not provide this information within ten days, the matter is referred to compliance and enforcement.

During the reporting period, no violations were issued for lack of a certified operator in direct responsible charge. In 2020, one PWS was identified as not having an appropriately certified operator. That issue was resolved within 72 hours of the operator certification program manager making initial contact with the administrative contact.

The State requires that all operating personnel making process control and system integrity decisions about water quality or quantity that affect public health be certified at the proper level. The regulations governing drinking water operator certification state that a certified operator must be available for each operating shift.



## Operator Qualifications

The Board continues to maintain membership in the Association of Boards of Certification (ABC). ABC provides exam development, standardizing of exams, and exam validation services to the state.

Treatment, distribution, and very small system exams are offered annually in April, July, and November. The State uses the standardized exam format. Exams are held in the auditorium at RIDOH and proctored by the operator certification program manager.

Over the year Rhode Island continued to offer electronic exams via PSI Services. This initiative was introduced in 2019 and continued through 2020. In 2020, 69 combined paper and electronic exams were conducted. This is a notable reduction from the 181 exams taken in 2019, most likely due to COVID-19.

After each session, the proctor collects candidates' question comment forms for review by the Board. The Board reviews these comments at its quarterly meetings for clarity and accuracy. In 2020, the Board did not recommend that any questions be removed from the question bank.

### 2020 Exam Statistics

Year Totals				
	Number of Examinees	Passed	Failed	% Passed
VSS	4	3	1	75%
D1	17	6	11	35%
D2	7	1	6	15%
D3	12	2	10	20%
D4	4	1	3	25%
T1	13	4	9	31%
T2	3	1	2	33%
T3	9	1	8	11%
T4	0	0	0	n/a
<b>Total</b>	<b>69</b>	<b>19</b>	<b>50</b>	<b>27.00%</b>

## Water Treatment Operator Qualifications

<b>Information current as of</b>	<b>12/31/2020</b>
<b>Is certification mandatory?</b>	<b>Yes</b>
<b>Number of Active Treatment Certifications</b>	<b>307</b>

Level Name	1	2	3	4
Education Requirements	HS/GED	HS/GED	HS/AS/BS	AS/BS
Experience Requirements	6 mos	2 yrs	4yrs/2 yrs/1 yr	4 yrs/2 yrs
Number of exam questions	100	100	100	100
Passing score (%)	70	70	70	70
Continuing Education Requirements (Hrs/3 yrs)	15	15	30	30
Fee to take a paper exam for the first time	\$45.50	\$45.50	\$45.50	\$45.50
Fee to retake a paper exam	\$45.50	\$45.50	\$45.50	\$45.50
Fee to take an electronic exam for the first time	\$102.00	\$102.00	\$102.00	\$102.00
Fee to retake an electronic exam	\$102.00	\$102.00	\$102.00	\$102.00

<b>General Information</b>	
Is Direct Responsible Charge required for certification? (Direct Responsible Charge is active daily on-site technical direction and supervision or active daily on-site accountability of a facility or a major segment of a facility.)	No
How are plants/systems rated (i.e., by technology/by flow/by population served)?	Technology
Is Operator-in-Training certification offered for those who do not meet experience requirements?	Yes
Are substitutions allowed for any certification requirements?	No
Is an exam required for certification?	Yes
Type of exam (i.e., Multiple choice; Essay/short answer; True/False; Performance; Combination)?	Multiple choice and True / False
How is the exam taken (e.g., paper and pencil/On computer/Internet)?	Pencil and paper, or on computer
Are open book exams allowed?	No
Is there a sequential exam requirement? (That is, operators must start with the lowest level of exam, and pass each exam in sequence; they may not immediately take the highest level of exam for which they are otherwise qualified.)	No, there is no sequential exam requirement
Is certification renewal required?	Yes
Renewal interval (years)	3
Note if varies by category or level:	2-year renewal period for operators in training
Notes	No operator-in-training classification for Grade 4 operators. Must qualify for full certification when applying to take exam.

## Water Distribution Qualifications

<b>Information current as of</b>	<b>12/31/2020</b>
<b>Is certification mandatory?</b>	<b>Yes</b>
<b>Number of Active Distribution Certifications</b>	<b>439</b>

<b>Level Name</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Education Requirements	HS/GED	HS/GED	HS/AS/BS	AS/BS
Experience Requirements	6 mos	2 yrs	4yrs/ 2 yrs/ 1 yr	4 yrs/ 2 yrs
Number of exam questions	100	100	100	100
Passing score (%)	70	70	70	70
Continuing Education Requirements (Hours/3 yrs)	15	15	30	30
Fee to take an exam for the first time	\$45.50	\$45.50	\$45.50	\$45.50
Fee to retake an exam	\$45.50	\$45.50	\$45.50	\$45.50
Fee to take an electronic exam for the first time	\$102.00	\$102.00	\$102.00	\$102.00
Fee to retake an electronic exam	\$102.00	\$102.00	\$102.00	\$102.00

<b>General Information</b>	
Is Direct Responsible Charge required for certification? (Direct Responsible Charge is active daily on-site technical direction and supervision or active daily on-site accountability of a facility or a major segment of a facility.)	No
How are plants/systems rated (i.e., by technology/by flow/by population served)?	Technology/ Population/ Source
Is Operator-in-Training certification offered for those who do not meet experience requirements?	Yes
Are substitutions allowed for any certification requirements?	No
Is an exam required for certification?	Yes
Type of exam (e.g., Multiple choice; Essay/short answer; True/False; Performance; Combination)?	Multiple choice and True / False
How is the exam taken (e.g., paper and pencil/on computer/Internet)?	Pencil and paper, or on computer
Are open book exams allowed?	No
Is there a sequential exam requirement? (That is, operators must start with the lowest level of exam, and pass each exam in sequence; they may not immediately take the highest level of exam for which they are otherwise qualified.)	No, there is no sequential exam requirement
Is certification renewal required?	Yes
Renewal interval (years)	3
Note if varies by category or level:	2-year renewal period for operators in training
Notes	No operator-in-training classification for grade 4 operators. Must qualify for full certification when applying to take exam.

## **Operator Certification**

The State of Rhode Island's operator certification rules and regulations contain a grandfathering provision. Requests for grand-fathered certification were due by February 28, 2003. The Board approved all requests through February 28, 2003.

There were 56 active grandfathered licenses in 2020, a decrease of one from 2019. As those with grandfathered licenses move on from the industry, they will be replaced with certified operators who have met the full requirements, including passing the exam.

Operators with grandfathered licenses are required to complete the same number of training hours per renewal cycle as those who gained their license via exam and reciprocity. No operators with grandfathered licenses were required to obtain additional training in 2020.

### **Reciprocity**

The Board may grant full certifications without examination to any individual holding a certificate that the Board deems comparable to Rhode Island's requirements. The Board reviewed 13 applications for reciprocity from eight candidates, given that some candidates applied for both Treatment and Distribution Licensees. The Board approved 10 requests and denied three.

### **Enforcement and Discipline**

The Board has the responsibility for taking disciplinary action against operators when necessary. The Board may revoke, suspend or otherwise discipline the holder of a certificate issued under the rules and regulations when it is found that the individual performed his/her duties in a negligent manner that produced a supply below standards normal for the particular facility operated; or that he/she has practiced fraud or deception; or that reasonable care, judgment or the application of this knowledge or ability was not used in the performance of his/her duties or that an individual is incompetent or unable to perform his/her duties in violation of Chapter 46-13 of Rhode Island's General Laws, or regulations promulgated pursuant to 46-13.

### **Disciplinary Actions**

One disciplinary action was taken in 2020. It concluded with the voluntary surrender of the operator's certificate.

## Certification Renewal

Rhode Island operator certification requires that an operator (including those with grandfathered licenses) renew her/his full certification every three years and operator-in-training certification every two years. Renewal requires evidence of completed training credits, a completed application, and assigned affidavit attesting to the validity of information provided during the application process. Training credits are issued as Training Contact Hours (TCH).

As a prerequisite to certificate renewal, an applicant must complete the number of continuing training/education contact hours related to drinking supply treatment and/or transmission and distribution specified below and which are acceptable to the Board. Courses approved for TCH credit may be used for renewal a maximum of one time during any renewal period.

Contact Hours Required, with one (1) continuing education unit (CEU) equal to ten (10) contact hours:

	Two-Year Renewal Period (OIT)	Three-Year Renewal Period (Full)
<b>Class VSS</b>	2 hours	3 hours
<b>Class I</b>	10 hours	15 hours
<b>Class II</b>	10 hours	15 hours
<b>Class III</b>	20 hours	30 hours
<b>Class IV</b>	20 hours	30 hours

Applicants must complete 50% or more of their required training contact hours in technical areas directly related to the operations of the water system employing them and may complete no more than 25% each in the areas of health/safety and supervisory skills.

In 2020, 137 operator licenses were renewed in each classification as follows:

<b>D1</b>	18	<b>T1</b>	15
<b>D2</b>	19	<b>T2</b>	16
<b>D3</b>	23	<b>T3</b>	6
<b>D4</b>	13	<b>T4</b>	3
<b>D1-OIT</b>	5	<b>T1-OIT</b>	2
<b>D2-OIT</b>	0	<b>T2-OIT</b>	2
<b>D3-OIT</b>	1	<b>T3-OIT</b>	2
<b>D4-OIT</b>	0	<b>T4-OIT</b>	0
<b>VSS</b>	12		
<b>VSS-OIT</b>	0		

All met the renewal training requirements outlined above.

## **Training and Program Funding**

RIDOH continues its partnership with New England Water Works (NEWWA) to fund training initiatives as included in the work plan and funded through State Revolving Loan Fund (SRF) set-asides. RIDOH engaged with NEWWA in the summer of 2019 to plan for the delivery of full-day and half-day sessions in multiple locations throughout Rhode Island, with the first five classes held in the fall and winter of 2019 and the second five sessions in the series held in the winter and spring of 2020.

In 2020, the New England Water Works Association (NEWWA) conducted five training sessions and granted a total of 231 Training Contact Hours. These training sessions were scheduled in the fall of 2019 for delivery in the winter and spring of 2020.

The program selected topics to address compliance issues, violation trends, and small PWS compliance including:

- Ethics and Water System Operations;
- Identifying and Correcting Potential Bacterial Resistance to Disinfection;
- How to Avoid Violations by Removing Pathogens in Your System;
- Principles of Public Health for Drinking Water Operations; and
- Understanding and Complying with the Safe Drinking Water Act.

RIDOH does not directly reimburse operators for expenses related to training and exams. These learning opportunities are free of charge and open to all operators while targeting those from small public water systems.

## **Training Course Approval**

After streamlining the training course and program approval process in 2018, the new process and application were retained throughout 2020.

The list of Board-approved courses found online is now updated quarterly following each Board meeting that generates new course approvals. In 2020, 460 courses were approved in total and 36 new courses and programs were added.



## Resources and Personnel

RIDOH's principal community development training specialist oversaw all operator certification program activities in 2020 and served as staff assistant to the Board by preparing meetings, recording and documenting the agenda, minutes, and recording decisions of the Board for public access, and provided applicant eligibility data to the Board. Other duties included compliance assurance, contract management, data management, and coordination among other program staff on operator-related issues and initiatives.

Staff positions are funded through the DWSRF budgetary set-asides. In 2020, the program was staffed at one full-time equivalent (FTE), with both the principal community development training specialist and senior community development training specialist dedicating approximately 50% of their work hours to program activities. Both positions review and prepare training course approval packages, manage licensing, renewals, and licensee correspondence. They also perform exam-related logistics including scheduling, proctoring, and licensee communication. Additionally, the senior community development training specialist also supports the program by developing outreach materials for the operator community.

RIDOH's Division of Licensing oversees the License 2000 database, which is utilized for the licensing of both drinking water operators and public water systems. DWQ staff are responsible for data entry, generating licenses, and managing renewals within the database. The database is updated daily as data is collected on licensees, systems, and compliance status. RIDOH is planning to update the current License 2000 database to a new database by the end of 2021.

Changes made to the database, such as license renewal and issuance of new licenses, are reflected in real time on the State licensee lookup webpage at:

<http://health.ri.gov/licensing/#water>.

## **Recertification**

Typically, upon license expiration, the operator is granted a six-month grace period (during which they are considered unlicensed for the purpose of compliance) to renew without any penalty. After this six-month period, the operator must re-apply and attest to meeting the experience and education requirements, as well as taking and passing the exam again. The Board reviews reinstatement requests from operators on a case-by-case basis.

To help mitigate impacts from the COVID-19 pandemic, the RIDOH Center for Drinking Water Quality extended this license renewal period past six months in 2020. As Rhode Island began to recover from the COVID-19 pandemic, the Center for Drinking Water Quality initiated steps to return to the regular renewal process that is detailed above. The typical six-month grace period will be restored by December 31, 2021.

## Stakeholder Involvement

The Board established by section 23-65-2 of the Rhode Island General laws, is comprised of seven (7) persons, including the director of the department of health, or his or her designee and six (6) members appointed by the governor. Of the appointed members, one shall be a registered professional engineer engaged in the practice of water supply engineering, one shall be from a list of qualified operators of a publicly owned water supply treatment facility in the state which has been recommended by the executive committee of the Rhode Island Water Works Association, one shall be from a list of qualified directors of a water supply facility who has general supervisory authority for a water supply facility which has been recommended by the executive committee of the Rhode Island Water Works Association, one shall be a representative of a labor union, one shall be a representative of business or industry, and one shall be a residential consumer of water. The Board holds annual elections to name a chairperson, vice chairperson, and secretary.

The current roster of Board members is as follows:

<b>Katherine Mello, P.E. (Chair)</b>	Professional Engineer
<b>Jessica Lynch, P.E. (Vice Chair)</b>	Water Supply Facility Director
<b>Carlene Newman (Secretary)</b>	RIDOH Representative
<b>Robert Bozikowski</b>	Residential Water Consumer
<b>Mario Carlino</b>	Business Industry Representative
<b>Christopher Collins</b>	Publicly Owned Water Supply Operator
<b>John Fletcher</b>	Labor Union Representative.

The Board meets quarterly at locations throughout the state. In addition to regular meetings the Board meets for special sessions as required. General meetings are open meetings and the program manager is responsible for posting meeting agendas on the state website 48 hours prior to meetings. Due to COVID-19, the Board was authorized to meet via phone and virtual video conferences in 2020. The Board intends to reinstate in-person meetings by July 23, 2021.

Each quarter, the operator certification manager compiles the agenda and agenda items, which include exam candidate information for approval, OIT to full certification requests, reciprocity applications, and training course approvals. As needed, the Board addresses and reviews requests for reinstatement.

The Board does not maintain its own website. Exam dates, applications, and training resources are available on-line through the RIDOH website on the Center for Drinking Water Quality web pages at: <http://health.ri.gov/wateroperator/>. Data is managed and updated by the program manager.

## Program Review

In 2020, the Board continued to review its regulations. It held four meetings at which the operator certification program manager presented research and sample regulations to guide discussion. The Board discussed and captured proposed changes, which were compiled in 2020 to begin the rulemaking process.



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