



Information for States On Recommended Operator Certification Requirements

For Information Only

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INTRODUCTION

The contents of this chapter, *Summary of Existing Operator Certification Programs by Category* and *Summary of Existing Operator Certification Programs*, were prepared for the National Drinking Water Advisory Council (NDWAC) Working Group on Operator Certification. The documents summarize the status of State drinking water operator certification programs, as of July 1, 1997. They are based on State statutes and regulations. Additional information was obtained from phone calls to the operator certification program contacts in each State. These contacts are listed in Chapter 4 of this information package.

The NDWAC Working Group on Operator Certification identified several important components of a drinking water operator certification program. Information on these areas was collected and is summarized in the following two documents. The certification program components are listed below, along with a brief explanation of the information provided for each category.

- **Implementing Agency** - The appropriate agency or agencies responsible for implementation of the program.
- **Coverage** - Information on which systems require a certified operator (e.g., all public water systems [PWS], all community [CWS] and non-transient non-community [NTNCWS] water systems, etc.) and how the State defines an "operator."
- **Reciprocity** - An explanation of whether the State engages in reciprocity with other States, and the limitations that exist for reciprocal certification (e.g., greater than or equal to State's criteria, only ABC States, etc.).
- **Authorization** - The State statutes, rules, or regulations that establish authority for all functions of the program.
- **Certification Board** - Information on the existence and make-up of a certification board or equivalent body (e.g., advisory board) in the State program.
- **Classification of Systems/Facilities** - A description of the method by which the State classifies its water supply systems. These classifications are usually based on system complexity or size. If the State uses a point system to determine the classification, the point system is provided in the appendices to the *Summary of Existing Operator Certification Programs*.
- **Operator Qualifications** - The qualifications for certification (e.g., training, education, experience).

- **Certificate Renewal** - The requirements of an operator to maintain his or her certification (e.g., renewal period, requirements for training, and working, etc.).
- **Recertification** - Identification of when an operator must reexamine in order to become recertified due to failure to renew or revocation of his/her certificate.
- **Resources** - A list of associated fees,¹ staffing, and funding for the State program.
- **Enforcement** - A description of the methods used by the State to enforce the requirement that public water systems have a certified operator, and the agency that administers this area. (This may include actions against an owner or the operator of a system.)
- **Program Review** - Information on whether there is a regular formal review/evaluation process of the entire State program.

Although the information in both documents is similar, the *Summary of Existing Operator Certification Programs* contains a much more detailed summary of each State's program, while the *Summary of Existing Operator Certification Programs by Category*—the first document following this introduction—provides a quick look at where all State programs are on these issues.² The documents should be used together for a proper understanding of a State operator certification program.

¹For most States, information on fees was obtained from the statutes and/or regulations. It should be noted that, in many States, fee revenue does not directly support the operator certification program. This money may go into the State's general fund, which in turn provides money to run the program.

²There were no tables prepared on "Authorization" and "Enforcement" for the *Summary of Existing Operator Certification Programs by Category*.

SUMMARY OF EXISTING OPERATOR CERTIFICATION PROGRAMS BY CATEGORY

-- FOR INFORMATION ONLY --

IMPLEMENTING AUTHORITY

The following table illustrates where authority lies for the implementation of the Safe Drinking Water Act and the operator certification program in each State. Broad categories have been used to encompass all variations (e.g. "Dept. of Health and Welfare" would be classified as "Health", "Dept. of Environment and Conservation" would be classified as "Environment", etc.). The ✕ denotes the State primacy agency, while the ● illustrates where the operator certification program is located.

	Health	Environment/ Natural Resources	Other*
Alabama		✕ ●	
Alaska		✕ ●	
Arizona		✕ ●	
Arkansas	✕ ●		
California	✕ ●		
Colorado	✕ ●		
Connecticut	✕ ●		
Delaware ¹	✕ ●		
Florida		✕	●
Georgia		✕	●
Hawaii	✕ ●		
Idaho	✕	●	
Illinois		✕ ●	
Indiana		✕ ●	
Iowa		✕ ●	
Kansas		✕ ●	
Kentucky		✕ ●	
Louisiana		✕	●
Maine	✕		●
Maryland		✕ ●	
Massachusetts		✕ ●	●
Michigan		✕ ●	
Minnesota	✕ ●		
Mississippi	✕ ●		

* Examples of an implementing authority that would be classified as "Other" include: Department of Human Services or Department of Business and Professional Regulation.

	Health	Environment/ Natural Resources	Other*
Missouri		✕ ●	
Montana		✕ ●	
Nebraska	✕ ●		
Nevada	●		✕
New Hampshire		✕ ●	
New Jersey		✕ ●	
New Mexico		✕ ●	
New York	✕ ●		
North Carolina		✕ ●	
North Dakota	✕ ●		
Ohio		✕ ●	
Oklahoma		✕ ●	
Oregon	✕ ●		
Pennsylvania		✕ ●	
Rhode Island	✕ ●		
South Carolina	✕ ●		●
South Dakota		✕ ●	
Tennessee		✕ ●	
Texas		✕ ●	
Utah		✕ ●	●
Vermont		✕ ●	
Virginia	✕		●
Washington	✕ ●		
West Virginia	●	✕	
Wisconsin		✕ ●	
Wyoming		✕ ●	
TOTAL ✕	18	31	1
TOTAL ●	17	28	8

REMARKS:

1. Draft Regulations.

COVERAGE

This table illustrates which systems are required to have a certified operator according to State statutes and regulations. Additionally, the issue of remote supervision is presented. In many States, remote supervision is only allowed at certain facilities (e.g., small, non-complex). (Refer to detailed summary of the State for more information on this issue.)

	Certified Operator Required						Remote Supervision Allowed	
	CWS			NTNCWS			Yes	No
	Yes	Yes*	No	Yes	Yes*	No		
Alabama ¹	●			●			●	
Alaska		●			●			●
Arizona	●			●			●	
Arkansas ²	●				●			
California	●			●			●	
Colorado	●			●			●	
Connecticut		●				●		●
Delaware ³	●			●				●
Florida	●			●				●
Georgia	●			●			●	
Hawaii		●			●			●
Idaho ⁴								
Illinois		●		●			●	
Indiana	●			●			●	
Iowa		●				●	●	
Kansas	●			●				●
Kentucky	●			●			●	
Louisiana ⁵		●			●		●	
Maine	●			●			●	
Maryland ²		●				●		
Massachusetts	●			●			●	
Michigan ²		●			●			
Minnesota		●			●		●	
Mississippi	●			●			●	

*These columns indicate that the State does require a certified operator at most of these systems however, certain exemptions apply.

	Certified Operator Required						Remote Supervision Allowed	
	CWS			NTNCWS				
	Yes	Yes*	No	Yes	Yes*	No	Yes	No
Missouri ⁶		●				●		●
Montana	●			●			●	
Nebraska	●			●			●	
Nevada		●			●		●	
New Hampshire ²	●			●			●	
New Jersey ⁷		●			●		●	
New Mexico	●			●				●
New York ²	●			●				
North Carolina		●			●		●	
North Dakota ⁸		●				●	●	
Ohio		●			●		●	
Oklahoma ²	●				●			
Oregon		●				●		●
Pennsylvania	●			●				●
Rhode Island ²		●			●		●	
South Carolina	●			●				●
South Dakota		●			●			
Tennessee ²	●			●				
Texas	●			●				●
Utah		●			●		●	
Vermont ²	●			●				
Virginia		●			●			●
Washington		●				●	●	
West Virginia	●			●			●	
Wisconsin		●				●	●	
Wyoming		●			●		●	
TOTAL	26	23	0	24	16	8	28	13

*These columns indicate that the State does require a certified operator at most of these systems however, certain exemptions apply.

REMARKS:

1. NTNCWS with groundwater are exempt.
2. It could not be determined based on the information whether remote supervision is permitted in this State.
3. Draft Regulations.
4. The program is voluntary.
5. Systems serving <500 persons are exempt, except those systems utilizing either surface water or ground water under the direct influence of surface water as their source with at least 15 connections and regularly serving at least 25 people.
6. Exemptions: PWSs serving fewer than 50 service connections or fewer than 200 people.
7. Class 3 and 4 automated facilities are exempt.
8. Well water facilities are exempt.

RECIPROCITY

The following table lists whether States engage in reciprocity with other States, and two of the most common limitations that exist for reciprocal certification: if \geq State's criteria, or only with other ABC States.

	Yes		No
	Case-by-Case if \geq State's Criteria	ABC Members Only	
Alabama	●		
Alaska	●		
Arizona	●		
Arkansas	●		
California			●
Colorado	●		
Connecticut ¹	●		
Delaware ²	●		
Florida			●
Georgia	●		
Hawaii		●	
Idaho	●		
Illinois*	●		
Indiana	●		
Iowa	●		
Kansas	●		
Kentucky	●		
Louisiana	●		
Maine	●		
Maryland	●		
Massachusetts	●		
Michigan	●		
Minnesota	●		
Mississippi		●	

*Provided that the State from which the operator is coming will grant reciprocal certification for operators certified in their State.

	Yes		No
	Case-by-Case if \geq State's Criteria	ABC Members Only	
Missouri	●		
Montana	●		
Nebraska			●
Nevada	●		
New Hampshire	●		
New Jersey	●	●	
New Mexico	●		
New York	●		
North Carolina	●		
North Dakota	●		
Ohio	●		
Oklahoma*	●		
Oregon	●		
Pennsylvania	●		
Rhode Island	●		
South Carolina	●		
South Dakota*	●		
Tennessee	●		
Texas*	●		
Utah	●		
Vermont	●		
Virginia	●		●
Washington	●	●	
West Virginia	●		
Wisconsin	●		
Wyoming	●		
TOTAL	45	4	4

*Provided that the State from which the operator is coming will grant reciprocal certification for operators certified in their State.

REMARKS:

1. The State has an agreement with ABC. If the other State also has an agreement, reciprocity will automatically be granted.

2. Draft Regulations.

CERTIFICATION BOARD OR EQUIVALENT AGENCY

The table below provides information on the existence and make-up of a certification board or equivalent body (e.g., advisory board) in each State program.

	Yes	No	Type		Make-up			
			Advisory Only	Normative*	State	Academia	Operators	Other
Alabama		●						
Alaska	●		●		●		●	●
Arizona	●		●		●	●	●	●
Arkansas	●			●	●	●	●	●
California		●						
Colorado	●			●	●		●	●
Connecticut	●		●		●		●	●
Delaware ¹	●			●	●		●	●
Florida**	●		●					
Georgia	●			●	●	●	●	●
Hawaii	●			●	●		●	
Idaho	●			●	●	●	●	●
Illinois	●		●			●	●	●
Indiana		●						
Iowa		●						
Kansas		●						
Kentucky	●		●		●	●	●	●
Louisiana	●		●		●		●	
Maine	●			●	●	●	●	●
Maryland	●			●	●		●	●
Massachusetts	●			●	●		●	●
Michigan	●		●		●	●	●	●
Minnesota	●		●		●		●	●
Mississippi		●						

* Boards classified as "normative" are those which possess the authority to set program standards.

** Information not available on board make-up.

	Yes	No	Type		Make-up			
			Advisory Only	Normative*	State	Academia	Operators	Other
Missouri		●						
Montana	●		●		●	●	●	
Nebraska	●		●				●	●
Nevada**	●		●					
New Hampshire	●		●		●			●
New Jersey ²	●		○	●	●	●	●	●
New Mexico ³	●		○	●	●		○ ●	●
New York		●						
North Carolina	●			●	●	●	●	
North Dakota		●						
Ohio**	●		●					
Oklahoma	●		●			●	●	●
Oregon	●		●			●	●	●
Pennsylvania	●			●	●	●	●	●
Rhode Island	●			●	●		●	●
South Carolina**	●							
South Dakota	●		●			●	●	●
Tennessee	●				●	●	●	
Texas**	●							
Utah	●		●		●	●	●	●
Vermont	●		●		●	●	●	●
Virginia	●				●	●	●	●
Washington	●		●		●	●	●	●
West Virginia	●		●					●
Wisconsin		●						
Wyoming		●						
TOTAL⁴	39	11	23	14	28	20	32	29

* Boards classified as “normative” are those which possess the authority to set program standards.

** Information not available on board make-up.

REMARKS:

1. Draft Regulations.
2. This state has two boards; one advisory and one for assistance in administering examinations. The make-up of the advisory only board is unknown.
3. This state has two boards; one advisory and one that runs the program.
4. It should be noted that the type of board could not be determined in SC, SD, TN, TX, VT, and VA. Additionally, NJ has two boards. Therefore, the totals listed below the "Type" columns do not total 38.

* Boards classified as "normative" are those which possess the authority to set program standards.

** Information not available on board make-up.

CLASSIFICATION OF SYSTEMS/FACILITIES

This table depicts the various methods by which States classify their water supplies. The letter "D" represents distribution systems and the "T" stands for treatment facilities. States without a D or a T classify all their systems by the same scheme.

		Point System	Population Served	Size (mgd)	# of Service Connections	Complexity of Treatment	Source of Supply
Alabama	D						
	T					•	•
Alaska	D	•					
	T	•					
Arizona	D		•				
	T		•			•	
Arkansas				•		•	•
California				•		•	
Colorado						•	•
Connecticut	D		•				
	T	•					
Delaware ¹						•	
Florida				•		•	•
Georgia	D		•				
	T		•			•	•
Hawaii						•	
Idaho	D		•				
	T	•	•	•		•	
Illinois						•	•
Indiana	D		•				•
	T		•		•	•	•
Iowa	D			•			
	T			•		•	
Kansas			•			•	•
Kentucky	D		•				
	T			•		•	
Louisiana			•				
Maine	D		•				
	T		•			•	
Maryland						•	
Massachusetts	D		•				
	T	•					
Michigan	D		•				
	T		•	•		•	
Minnesota		•	•			•	•
Mississippi						•	•

		Point System	Population Served	Size (mgd)	# of Service Connections	Complexity of Treatment	Source of Supply
Missouri		●					
Montana	D		●				
	T		●			●	●
Nebraska			●			●	
Nevada	D		●				
	T	●					
New Hampshire	D		●		●		
	T	●					
New Jersey	D		●				
	T	●					
New Mexico	D		●			●	●
	T		●			●	
New York	D		●		●		
	T		●			●	
North Carolina	D				●		
	T	●					
North Dakota	D		●				
	T		●			●	
Ohio	D			●		●	
	T			●		●	●
Oklahoma						●	●
Oregon	D		●			●	
	T	●	●	●		●	
Pennsylvania				●		●	
Rhode Island	D		●				
	T	●					
South Carolina			●	●	●	●	●
South Dakota	D		●				
	T	●					
Tennessee		●					
Texas					●		●
Utah		●	●				
Vermont	D						●
	T		●			●	
Virginia			●			●	
Washington	D		●				
	T	●	●	●		●	●
West Virginia		●					
Wisconsin						●	
Wyoming		●	●		●	●	
TOTAL²		18	28	12	7	35	18

1. Draft Regulations.

2. Totals represent the number of States which use each method in their classification system. Please note that some States may have two dots, therefore the number of dots in each column may not add up to the totals below.

CLASSIFICATION OF OPERATOR REQUIREMENTS

This table illustrates how the States compare on the qualifications for an operator to become certified.

	Education	Experience	Exam	Operator in Training (OIT)*	Substitutions Acceptable
Alabama	●	●	●		
Alaska	●	●	●		
Arizona	●	●	●		●
Arkansas ¹		●	●		
California	●	●	●		●
Colorado		●	●		
Connecticut	●	●	●		●
Delaware ²	●	●	●		●
Florida	●	●	●		
Georgia ³	●	●	●		
Hawaii	●	●	●	●	●
Idaho	●	●	●		●
Illinois	●	●	●		●
Indiana	●	●	●		●
Iowa ⁴	●	●	●		●
Kansas	●	●	●		
Kentucky	●	●	●		●
Louisiana	●	●	●		
Maine	●	●	●		●
Maryland	●	●	●		●
Massachusetts	●	●	●	●	●
Michigan	●	●	●		●
Minnesota ⁵	●	●	●		●
Mississippi	●	●	●		●

*Many States have operator-in-training (OIT) programs. This column represents those States where an OIT program is a requirement to become a certified operator.

	Education	Experience	Exam	Operator in Training (OIT)*	Substitutions Acceptable
Missouri	●	●	●		●
Montana	●	●	●		●
Nebraska	●	●	●		●
Nevada		●	●		●
New Hampshire ⁶	●	●	●		
New Jersey	●	●	●		●
New Mexico ⁷	●	●	●		●
New York	●	●	●		●
North Carolina	●	●	●		●
North Dakota	●	●	●		●
Ohio	●	●	●		
Oklahoma ⁸		●	●		●
Oregon	●	●	●		
Pennsylvania	●	●	●		●
Rhode Island	●	●	●		
South Carolina ⁹		●	●		
South Dakota	●	●	●		●
Tennessee	●	●	●		
Texas	●	●	●		●
Utah	●	●	●		
Vermont	●	●	●	●	●
Virginia	●	●	●	●	●
Washington	●	●	●		●
West Virginia	●	●	●		●
Wisconsin		●	●		
Wyoming	●	●	●		
TOTAL	44	50	50	4	33

*Many States have operator-in-training (OIT) programs. This column represents those States where an OIT program is a requirement to become a certified operator.

REMARKS:

1. No experience is required for operators of very small systems.
2. Draft Regulations.
3. Class IV operators (very small systems) are exempt from the examination requirement.
4. Operators of the smallest systems in this State are exempt from the exam requirement.
5. One year of experience is required to take a class specific exam.
6. Operators of the smallest systems are exempt from exam and experience requirements.
7. A grandfather clause exempts operators of systems serving >2,500 people who were employed prior to 07/01/93 from the exam requirement.
8. Class D and temporary certificate holders are exempt from the experience requirement.
9. Trainees are exempt from the requirements.

RENEWAL

This table presents the frequency of certificate renewal, and whether there are requirements for continuing education.

	Renewal					Continuing Education Requirements
	1 Year	2 Years	3 Years	5 Years	Other	
Alabama			•			•
Alaska			•			•
Arizona			•			
Arkansas		•				•
California ¹	•	•				
Colorado				•		
Connecticut			•			
Delaware ²		•				•
Florida		•				
Georgia		•				•
Hawaii		•				•
Idaho	•					
Illinois			•			
Indiana			•			•
Iowa		•				•
Kansas		•				•
Kentucky		•				•
Louisiana		•				
Maine		•				
Maryland			•			•
Massachusetts		•				•
Michigan			•			•
Minnesota			•			•
Mississippi			•			•

	Renewal					Continuing Education Requirements
	1 Year	2 Years	3 Years	5 Years	Other	
Missouri			●			●
Montana	●					●
Nebraska			●			●
Nevada		●				●
New Hampshire		●				●
New Jersey	●					
New Mexico			●			●
New York					●	●
North Carolina	●					
North Dakota	●					●
Ohio		●				
Oklahoma	●					●
Oregon	●					●
Pennsylvania	●					●
Rhode Island			●			●
South Carolina	●					●
South Dakota	●					●
Tennessee	●					●
Texas ³					●	●
Utah			●			●
Vermont ⁴				●		●
Virginia		●				
Washington ⁵	●					●
West Virginia		●				
Wisconsin ⁶		●	●			●
Wyoming			●			●
TOTAL	13	18	17	2	2	36

REMARKS:

1. The initial certificate is valid for one year. After the first year, renewal is required every two years.
2. Draft Regulations.
3. In this State, renewal varies according to the certificate held.
4. Class 1 systems are exempt from continuing education requirements.
5. Continuing education requirements are reported every three years.
6. The two-year renewal schedule ends in October 1997.

RECERTIFICATION

This table illustrates the point at which an operator must reexam in order to become recertified due to failure to renew his/her certificate.

	Terminated Certificate; Failure to Renew Required to Reapply/Reexam?			
	<6 mo after expiration	>6 mo after expiration	>1 yr after expiration	>2 yr after expiration
Alabama		●		
Alaska	●			
Arizona		●		
Arkansas				●
California		●		
Colorado				●
Connecticut		●		
Delaware ¹			●	
Florida				●
Georgia				●
Hawaii			●	
Idaho				●
Illinois				●
Indiana				●
Iowa	●			
Kansas				●
Kentucky			●	
Louisiana				●
Maine				●
Maryland				●
Massachusetts	●			
Michigan			●	
Minnesota				●
Mississippi	●			

	Terminated Certificate; Failure to Renew Required to Reapply/Reexam?			
	<6 mo after expiration	>6 mo after expiration	>1 yr after expiration	>2 yr after expiration
Missouri	●			
Montana	●			
Nebraska	●			
Nevada		●		
New Hampshire	●			
New Jersey			●	
New Mexico			●	
New York			●	
North Carolina				●
North Dakota			●	
Ohio				●
Oklahoma				●
Oregon			●	
Pennsylvania		●		
Rhode Island	●			
South Carolina			●	
South Dakota				●
Tennessee		●		
Texas	●			
Utah				●
Vermont			●	
Virginia			●	
Washington	●			
West Virginia				●
Wisconsin			●	
Wyoming	●			
TOTAL	12	7	13	18

REMARKS:

1. Draft Regulations.

RESOURCES

This table illustrates how the States compare on fees, program funding and staffing resources. Issues addressed are: 1) Staffing: what are the current staffing levels (FTEs) of State programs? 2) Fees: if a State has fees associated with its program, where does the money that is generated go? 3) Funding: where is the necessary revenue obtained to run the program?

	Staffing		Fees			Funding	
	>1 FTE	≤1 FTE	Dedicated Fund	General Fund	ABC ¹	Self-Supporting	Fees + Additional Funding (e.g., State/Fed)
Alabama	1.1			●			●
Alaska	1.5*		●				●
Arizona ²	3.0			●			●
Arkansas	3.5		●				●
California	4.5			●			●
Colorado	1.5			●			●
Connecticut		0.15-0.2			●		●
Delaware ^{3^}	1.5						●
Florida	1.5*			●			●
Georgia		0.5		●		●	
Hawaii		<1.0		●			●
Idaho		0.75	●			●	
Illinois	1.8			●			●
Indiana	2.0			●			●
Iowa		0.25*	●				●
Kansas	0.75			●			●
Kentucky ⁴	4.5**		●				
Louisiana	2.0*			●			●
Maine	N/A		●			●	
Maryland	1.25			●			●
Massachusetts	N/A			●			●
Michigan	3.0 +						●
Minnesota		1.0	●				●
Mississippi	3.0		●				●

N/A= not available

^ Draft Regulations.

*Figure may include wastewater program.

**Includes training and certification

	Staffing		Fees			Funding	
	>1 FTE	≤1 FTE	Dedicated Fund	General Fund	ABC ¹	Self-Supporting	Fees + Additional Funding (e.g., State/Fed)
Missouri ²	1.5		●				●
Montana	2.84*		●			●	
Nebraska		<1.0	●				
Nevada		0.5	●				●
New Hampshire ⁴	1.25		●				
New Jersey	2.0			●			●
New Mexico	3.0			●			●
New York		1.0					●
North Carolina ⁴	2.0		●				
North Dakota	1.0-1.5			●			●
Ohio	1.5		●			●	
Oklahoma	7.0		●			●	
Oregon	1.75			●			●
Pennsylvania	4.0*			●			
Rhode Island		0.25			●		●
South Carolina	2.5		●			●	
South Dakota ⁴		0.5*	●				
Tennessee	1.5			●			●
Texas	6.0			●			●
Utah	1.35			●			●
Vermont		0.75	●		●		●
Virginia	N/A					●	
Washington	2.5		●			●	
West Virginia	1.8						●
Wisconsin		1.0		●			●
Wyoming		1.0*					●
TOTAL	2.44	0.66	20	22	3	9	35

N/A= not available

^ Draft Regulations.

*Figure may include wastewater program.

**Includes training and certification

REMARKS:

1. Some States utilize the Association of Boards of Certification (ABC) exam service and use fee revenue strictly to cover the cost of that service.
2. This State has a fee schedule, but it is not clear whether fee revenue is a source of funding for the program.
3. It is not clear whether fee revenue goes into a dedicated fund or a general fund.
4. Information was not obtained on where funding for the program comes from.

PROGRAM REVIEW

The following table illustrates those States which engage in a regular evaluation of their operator certification program, and the frequency with which they conduct this review.

	No*	Yes	Frequency of Review			
			More Frequent	1-3 years	3-5 years	Less Frequent
Alabama	●					
Alaska	●					
Arizona	●					
Arkansas	●					
California	●					
Colorado		●			●	
Connecticut	●					
Delaware ¹	●					
Florida	●					
Georgia		●			●	
Hawaii	●					
Idaho	●					
Illinois	●					
Indiana	●					
Iowa		●	●			
Kansas	●					
Kentucky	●					
Louisiana		●	●			
Maine	●					
Maryland	●					
Massachusetts	●					
Michigan	●					
Minnesota		●	●			
Mississippi	●					

* Many States review their programs as necessary on a periodic basis. This column represents all States where no formal evaluation process is in place, and may include such States.

	No*	Yes	Frequency of Review			
			More Frequent	1-3 years	3-5 years	Less Frequent
Missouri	●					
Montana	●					
Nebraska	●					
Nevada	●					
New Hampshire	●					
New Jersey	●					
New Mexico	●					
New York	●					
North Carolina						
North Dakota	●					
Ohio	●					
Oklahoma						
Oregon	●					
Pennsylvania	●					
Rhode Island	●					
South Carolina		●			●	
South Dakota	●					
Tennessee	●					
Texas	●					
Utah	●					
Vermont	●					
Virginia	●					
Washington	●					
West Virginia	●					
Wisconsin	●					
Wyoming		●	●			
TOTAL	41	7	4	0	3	0

REMARKS:

1. Draft Regulations.

* Many States review their programs as necessary on a periodic basis. This column represents all States where no formal evaluation process is in place, and may include such States.

SUMMARY OF EXISTING OPERATOR CERTIFICATION PROGRAMS

-- FOR INFORMATION ONLY --

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Alabama	Alabama Department of Environmental Management - Water Division	<p>All community water systems (CWS) treatment plants are required to have an operator certified in accordance to the provisions of the regulation as competent to supervise the classification of plants or systems to which the plant or system operated is classified. All surface water nontransient noncommunity (NTNC) plants must also have a certified operator or at least one trainee present at the plant. A trainee may perform the duties of an operator for a max. of one year without having been certified by the Director. NTNC plants with ground water are exempt.</p> <p>Operator definition - person on duty who has direct responsibility (i.e., supervises or directs operation) of a treatment or distribution plant.</p> <p>Remote facilities: An operator may supervise more than one ground water plant if the Dept. determines he can maintain two systems. All surface water plants must have at least one certified operator.</p> <p>Total Systems CWS: 593 NTNCWS: 59</p> <p>Total Covered Systems² CWS: 593 NTNCWS: 7</p>	Yes- Certificates may be issued in a comparable classification to a person who has obtained a valid certificate from another State by examination, provided the requirements of that State are comparable to or higher than those of the Department and that State has reciprocal agreement with Alabama. Issuance is contingent upon submission of an application to the Department, required fees, a copy of the present certificate, and other supporting documentation required by the Department.	Code of Alabama 1975: § 22-22A, § 22-25-1 - 22-25-15, and ADEM Admin. Code R. 335-10-1.01 - 335-10-1.15	No	<p><i>Grade I:</i> distribution systems only</p> <p>Treatment Plants:</p> <p><i>Grade II:</i> Basic ground water (treatment including aeration and pressure filtration).</p> <p><i>Grade III:</i> Advanced ground water (treatment using sedimentation and/or flocculation) or Basic surface water (treatment servicing < 2 mgd)</p> <p><i>Grade IV:</i> Advanced surface water (treatment servicing > 2 mgd)</p>

1. This column contains information on the certification board or equivalent agency in the State operator certification program.

2. The total number of covered systems refers to those systems that are currently required by State statute or regulation to have a certified operator. There are some discrepancies between the data we obtained from the States and the data in the Safe Drinking Water Information System (SDWIS). For national uniformity, we are using the SDWIS data in States where 100% coverage of CWS and NTNCWS applied.

State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
AL	<ul style="list-style-type: none"> • Applicants must score $\geq 70\%$ on written exam Min. experience: <i>Grade I</i> = 12 mo. <i>Grade II</i> = 18 mo. in a Grade II facility or 24 mo. combined (experience may be acquired in applicable grade level or I below) <i>Grade III</i> = 24 mo. in a Grade III or 36 mo. combined <i>Grade IV</i> = 24 mo. in a Grade IV or 36 mo. combined Total Number of Active Operators: 2,000 	<ul style="list-style-type: none"> • Renewal period: triennially Number of Contact Hours based on number of certificates operators have: 1 certificate = 24 hours each additional certificate = +15 hours A complete application for renewal shall be received at least forty-five days prior to the expiration date of the certificate. Operators who fail to submit a renewal application prior to certification expiration date may file a late application and pay late fee over and above the certification fee. All late applications must be received within 180 days after expiration. 	An operator who fails to submit an application for renewal after 180 days must reapply and must take an examination.	Fees: <ul style="list-style-type: none"> • Examination: \$50 • Renewal: \$20 • Late Fee: \$50 Funding: Generated revenue from fees goes into a direct credit fund for operator certification, within the State's general fund. Budget: Data not available. FT: 1.1	<p>The Department may initiate proceedings to enforce the requirements of Code of Alabama 1975 22-25-1 to 22-25-15. Proceedings may include:</p> <ul style="list-style-type: none"> • a notice of violation • an administrative order directing compliance • an administrative order assessing a civil penalty of $\geq \\$100$ and $\leq \\$25,000$ • any violations after written notice by the State health officer = misdemeanor <p>Information on how violations are discovered is not available.</p> <p>Agency: Department of Environmental Management has jurisdiction on enforcement actions against operators and systems.</p>	No formal review.

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Alaska	State of Alaska Department of Environmental Conservation	<p>All Class A and B PWSs with ≥ 100 service connections, or that are used, or intended for use, by ≥ 500 persons daily, are required to have 1 certified operator.</p> <p>- The level of operator required is equivalent to the system class, with some exceptions (e.g., night shift may have an operator 1 level below level of system).</p> <p>Class A and B PWSs (surface water) not described above are required to have either 1 certified operator, an operator in training, or a person who has successfully completed an approved surface water treatment training course and examination.</p> <p>-- Surface water or ground water under the direct influence of surface water (GWUDI) systems for > 500 people must have a certified operator (for < 500 people, OIT is sufficient)</p> <p>Total Systems CWS: 692 NTNCWS: 0</p> <p>Total Covered Systems: CWS: 150 NTNCWS: 0</p>	Yes - Certificates may be issued without examination in the comparable classification to an applicant who holds a certificate in a State, territory, or possession of the United States, if its certification requirements and examinations are comparable to those of this State and if reciprocal privileges are granted to operators certified in this State.	Volume 10, Title 45-47 - Alaska Statutes (A.S. 46.30) and Volume 18, Chapters 74 and 80 - Alaska Administrative Code	<p>Yes-Advisory Only-Water and Wastewater Works Advisory Board composed of the commissioner of the environmental conservation and eight additional members appointed by the governor (including certified operators).</p> <p>Board shall assist the department in the administration of the training and certification program.</p>	<p>Distribution Systems: System type: I - IV (based on a point system accounting for size, supply source, etc.)</p> <p>Treatment Plants: System type: I - IV (based on a point system accounting for size, supply source, treatment, etc.)</p> <p>See Appendix A-1 for a complete description of the point system.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
AK	<ul style="list-style-type: none"> Min. high school education and successful completion of written exam for all system types: <p>Distribution Cent. Red's:</p> <ul style="list-style-type: none"> Operator experience requirements = 1-8 yrs. based on system type <p>Water Treatment Cent Red's:</p> <p>OIT: operator in training</p> <p>Grade 1: + 1 yr exp.</p> <p>Grade 2: + 3 yrs exp.</p> <p>Grade 3: 2 yrs of college, + 4 yrs exp.(2 yrs of this must be Direct Responsible Charge (D.C.))</p> <p>Grade 4: 4 yrs of college, + 4 yrs exp.(2 yrs of this must be D.C.)</p> <p>Total Number of Active Operators: 915</p>	<ul style="list-style-type: none"> Renewal period: triennially Continuing education= minimum of 3 units (1 unit= 10 hrs of approved instruction) <p>For renewal, applicants must pay fee and fulfill continuing education credit requirements.</p> <p>Lapsed certificates may be renewed if the operator submits a renewal request within 180 days after expiration as long as the operator is in compliance with 18 A.C. 74.070 (C) (CCU's have been fulfilled) and the fee is paid.</p>	<p>The Department will, using its discretion, require reexamination of an operator whose renewal is received more than 180 days after expiration.</p> <p>An operator who has had his/her certificate revoked may apply for a new certificate for 365 days after revocation. After this period has elapsed, the person is treated as a new applicant (rarely occurs).</p>	<p>Fees:</p> <ul style="list-style-type: none"> Application: \$20 Exam: \$30 Renewal: \$50 Temporary certificate: \$20 App. fee & \$30 certificate fee Replacement: \$20 Reciprocal cert: \$50 App & \$50 certificate fee Dept. sponsored training: \$75 - \$200/course <p>Funding:</p> <p>All fees are deposited into the operator receipts fund which funds the program.</p> <p>Budget:</p> <p>Op. Cent. program may use up to \$43,700 of receipts fund. (Balance in excess of that will go to general State fund.)</p> <p>FT's = about 1.5 (may include both water and wastewater)</p>	<p>The DEC can revoke an operator's certification and impose fines against systems.</p> <p>DEC conducts inspections at the discretion of the drinking water office.</p> <p>Agency: Alaska Department of Environmental Conservation has jurisdiction on enforcement actions against operators and systems.</p>	<p>No-There is no formal program review but an informal review by the board is ongoing.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Arizona	Arizona Department of Environmental Quality	<p>-One certified operator shall have direct responsibility for the operation at all treatment and distribution systems (includes CWS and NTNCWS). Direct responsibility means the day-to-day decision making responsibility for a water treatment plant, collection system, or distribution, or a major portion of such a facility. This chief operator or superintendent must have a certification at the facility's grade. A shift foreman or other operators in charge of the facility in the absence of the chief operator or superintendent shall be certified at a grade no lower than one grade below the grade of the facility.</p> <p>-One certified operator may operate one or more facilities as a remote operator as long as each remote facility has an on-site operator with a certification no less than one grade below the facility; the remote operator has a certification equal to the facility's grade; s/he oversees all maintenance of the facility on basis determined by the grade of the facility; the on-site operator has a telephone number for the remote operator; and the remote operator lives no more than three hours from the facility.</p> <p>Total Systems CWS: 838 NTNCWS: 228</p> <p>Total Covered Systems CWS: 838 NTNCWS: 228</p>	Yes - The Department may issue certificates to applicants who hold valid certificates issued under laws of any other State, territory, or District of Columbia if the out-of-State applicant has passed a written examination approved by this Department for the particular type and grade for which the application is made. An applicant must pay the fees set forth in R18-5-113 with his/her application.	AZ Administrative Code: Chapter 5, Article I	<p>Yes- Certification Committee makes recommendations and provides the Department with technical advice and assistance upon request. The Committee consists of nine members consisting of a representative from the Department, employees from treatment and distribution systems, a member of the academia, a professional engineer, an elected or appointed municipal official, and a representative of an investor owned water or wastewater facility.</p>	<p><i>Distribution Systems:</i> (based on population served) Grade 1: 25 - 500 Grade 2: 501 - 5,000 Grade 3: 5,001 - 25,000 Grade 4: >25,000</p> <p><i>Treatment Plants:</i> Grades 1 - 4 based on complexity of treatment and population served</p>

1. This column contains information on the certification board or equivalent agency in the State operator certification program.

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
AZ	<ul style="list-style-type: none"> All operators must pass the written exam. The following are requirements in addition to the exam: <p><i>Grade 1:</i> no minimum education or experience requirements.</p> <p><i>Grade 2:</i> 2 yrs experience (at least 1 yr as a Grade 1 operator) OR high school (or GED) + 1 yr as a Grade 1 operator OR 2 yrs post-secondary ed. + 1 yr experience (at least 6 mo. as a Grade 1 operator) OR BA + 6 mo. experience.</p> <p><i>Grade 3:</i> 4 yrs. experience (at least 1 yr. as a Grade 2) OR high school (or GED) + 2 yrs experience (at least 1 yr as a Grade 2 operator) OR 2 yrs post-secondary ed. + 1 yr and 6 mo. experience as a Grade 2 operator OR BA +1 yr experience (at least 6 mo. as a Grade 2).</p> <p><i>Grade 4:</i> high school (or GED) + 3 yrs experience (at least 1 yr as a Grade 3 operator OR 2 yrs post-secondary ed. + 2 yrs and 6 mo. experience (at least 1 yr as a Grade 3 operator) OR BA + 1 yr experience as a Grade 3 operator.</p> <p>Total number of active operators: 6,004 (operators may have >1 certificate thus the total number of certificates is higher).</p>	<ul style="list-style-type: none"> Renewal period: triennially 	<p>If an operator has a certificate revoked, s/he may obtain a new certificate after s/he has complied with all the requirements for a new certificate no less than 6 months, but no more than 2 years, from the time the certificate was revoked. This time period is determined by the Director.</p> <p>Lapsed certificates may be reinstated without examination upon application within six months after expiration date.</p> <p>A lapsed certificate not renewed within six months cannot be reinstated and the applicant must reapply and pass the exam according to the rules for new applicants. Fees will be collected for both the lapsed certificate and late renewal.</p>	<p>Fees:</p> <ul style="list-style-type: none"> Exam: <i>Grades 1&2:</i> \$10 <i>Grades 3&4:</i> \$25 Reciprocity: \$15 3-yr certification: \$15 Renewal: \$15 Late renewal: \$10 <p>Funding: Fees go to the state general fund.</p> <p>Budget: Data not provided.</p> <p>FT: 3</p>	<p>AZ Department of Environmental Quality has jurisdiction in enforcement actions against both operators and systems.</p> <p>Systems are monitored through a sanitary survey that is part of routine inspections as well as by tracking certified operators and the facilities that they work at to insure that systems have operators that meet the minimum state requirements.</p> <p>Operators can have the certificates revoked but more commonly action is taken against systems. Administrative fees that are imposed against systems depend on the system's size.</p> <p>Systems serving 10,000 or more people can receive penalties of up to \$1,000 per day per violation up to a total of \$10,000.</p> <p>Systems serving 500 to 10,000 people can receive penalties up to \$500 per day per violation up to a total of \$5000.</p> <p>Systems serving <500 people can receive penalties up to \$100 per day per violation up to \$1000.</p>	<p>No-There is no formal review process. The Operator Certification Committee that oversees the program does meet quarterly, however, thus there is a certain amount of program assessment going on throughout the year.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Arkansas	Arkansas Department of Health	<p>All operators of community and certain non-community water systems, from which water is sold, distributed, or otherwise offered for human consumption, shall be licensed and certified as competent by the Department. All operators must be licensed for the appropriate type of water source. The grade of license required is based on population served and whether treatment is provided.</p> <p>Any person who is directly responsible for the safety, quantity and quality of water in a CWS or NTNCWS which uses surface water, or a surface water influenced source, is considered an operator.</p> <p>Total Systems CWS: 715 NTNCWS: 54</p> <p>Total Covered Systems² CWS: 715 NTNCWS: Data not provided due to complications with the database.</p>	Yes - The Committee may waive the requirements, or any part of the requirements, for formal examination of an applicant for a license if the applicant holds a valid license from another state in which the requirements for the license in the appropriate grade are \geq Arkansas	State of Arkansas Act 96 of 1913, as amended, and Act 1001 of 1991 Arkansas Codes: Title 17, Chapter 51, Sections 101-106 and 201-205	<p>Yes - Drinking Water Advisory and Operator Licensing Committee assists the department in examining applicants and advising the Board in all matters at the request of the Board of Health.</p> <p>The Committee consists of seven members appointed by the board. One shall be a registered engineer from the Dept. Of Health; one engineer from academia; four active operators; and one consulting engineer specializing in drinking water system design.</p> <p>The BoH adopts regulations and the DoH implements them.</p>	<p>Currently uses classification system based on source (groundwater or surface water), population, and treatment* complexity.</p> <p>Grade C: 25 -10,000 served, no treatment</p> <p>Grade B: 10,000 - 25,000 served, no treatment OR 25 - 10,000 served with treatment</p> <p>Grade A: \geq 25,000 served, no treatment OR \geq 10,000 served with treatment</p> <p>*simple disinfection (i.e. chlorine) is not considered treatment</p> <p><i>Proposed classification (ABC based)</i> Treatment Plants & Distribution Systems: Very small = \leq 500 Grade I - IV (increasing in complexity and population served)</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹														
AR	<p><u>Current</u></p> <ul style="list-style-type: none">• Written exam• Minimum experience: Grade C = 6 mo. Grade B = 2 yrs. Grade A = 5 yrs. <p><u>Proposed</u></p> <ul style="list-style-type: none">• Written exam• Minimum experience: Very small = none Grade I = 6 mo. II = 1 yr. III = 2 yrs. IV = 3 yrs. <table><tr><td><u>System</u></td><td><u>Grade</u></td></tr><tr><td>≥25,000 + treatment =</td><td>A</td></tr><tr><td>≥25,000 no treatment =</td><td>A</td></tr><tr><td>10,000-24,999 + treatment =</td><td>A</td></tr><tr><td>10,000-24,999 no treatment =</td><td>B</td></tr><tr><td>25-9,999 + treatment =</td><td>B</td></tr><tr><td>25-9,999 no treatment =</td><td>C</td></tr></table> <p>Total Number of Active Operators: >1800</p>	<u>System</u>	<u>Grade</u>	≥25,000 + treatment =	A	≥25,000 no treatment =	A	10,000-24,999 + treatment =	A	10,000-24,999 no treatment =	B	25-9,999 + treatment =	B	25-9,999 no treatment =	C	<ul style="list-style-type: none">• Renewal period: biennially• 24 hours of approved instruction with adequate documentation <p>Recertification for any reason other than revocation may be granted for operators or operators-in-training within two years after expiration or becoming inactive with payment of appropriate fees.</p>	<p>Reexamination and re-licensing may be required for operators or operators-in-training who become delinquent by failure to renew after two years.</p> <p>When the cause for revocation is removed, an operator's license may be reinstated.</p>	<p>Fees:</p> <ul style="list-style-type: none">• Exam: \$25• License: \$10• Renewal: \$10• Late renewal: \$5• Temp. permit: \$10• Reinstatement of revoked: \$10 + \$10 for reissuance of license• Reciprocity: \$25 evaluation fee <p>Funding: All fees are deposited into a dedicated fund for operator certification. -- The program is not self-supporting</p> <p>Budget*: approx. \$175,000 - approx. \$25,000 (operator fees) - balance: 60% PWS Service fees 22% General Revenue 18% PWSS Grant</p> <p>FTEs: Data not available.</p> <p>*includes operator training</p>	<ul style="list-style-type: none">• Administrative penalties may be assessed, by the AR State Board of Health, against any individual or any public water system for failure to comply with any portion of the regs. Civil penalties ≤ \$1,000/day of violation. Each continuing day of violation is considered a separate offense.• Any violation = misdemeanor offense <p>Violations are most often discovered through periodic investigations of small systems to check for document of certification (usually in response to complaints), and sanitary surveys. -- Rely on large systems to police themselves.</p> <p>Agency: AR State Board of Health has jurisdiction over enforcement actions against operators and systems.</p>	No formal review.
<u>System</u>	<u>Grade</u>																			
≥25,000 + treatment =	A																			
≥25,000 no treatment =	A																			
10,000-24,999 + treatment =	A																			
10,000-24,999 no treatment =	B																			
25-9,999 + treatment =	B																			
25-9,999 no treatment =	C																			

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
California	California State Department of Health Services	<p>All PWS treatment facilities shall have at least one certified operator.</p> <p>All people who do hands-on treatment must be certified but no facility is required to have a specific number of specific grade operators.</p> <p>Operator definition - any individual who does hands-on treatment.</p> <p>The Department determines the level of skill required to supervise or successfully operate water treatment facilities.</p> <p>Remote facilities that cannot employ an operator for the specific grade of the facility may employ a person who holds a Limited Certificate as provided in Section 7118.</p> <p>Total Systems CWS: 3,482 NTNCWS: 1,009</p> <p>Total Covered Systems² Data not provided</p>	No	CA Health and Safety Code: Article 3, Chapters 4 and 6 and California Code of Regulations: Title 17, Chapter 5, Environmental Sanitation.	No	<p>Plants are separated into surface water and groundwater. Classifications are based on type of treatment and flow.</p> <p>Chemical Treatment Only Plant: -- using fluoridation, chlorination, polyphosphates, etc.</p> <p>Chemical/Filtration Plant: --Systems serving less than 1 million gallons per day. --Systems serving 1-5 million gallons per day. --Systems serving 5-10 million gallons per day. --Systems serving 10 million or more gallons per day.</p>

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2. The total number of covered systems refers to those systems that are currently required by State statute or regulation to have a certified operator. There are some discrepancies between the data we obtained from the States and the data in the Safe Drinking Water Information System (SDWIS). For national uniformity, we are using the SDWIS data in States where 100% coverage of CWS and NTNCWS applied.

State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
CA	<p>Grade 1 certificate: Written exam (for small chem. treatment plant with <200 services).</p> <p><i>Operators who serve:</i> < 1 million gallons per day: Grade 2 certificate: Written exam and high school (HS) and 1 college class with no exp. or HS with 1 yr exp. 1-5 million gallons/day: Grade 3 certificate: Written exam and college with no exp. or HS with 2 college classes with 2 years exp. 5-10 million gallons/day: Grade 4 certificate: Written exam and college with 1 yr exp as responsible charge (OR) or HS with 3 yrs exp with 1 yr responsible charge with at least 1-5 million gal/day operator. Over 10 million gallons/day: Grade 5 certificate: Written exam and college with 1 yr exp as supervisor of at least 2 other cert operators or 2 yrs as Grade 4 operator with 5 total yrs exp with 2 yrs supervisor of at least 2 other cert operators.</p> <p>Total Number of Active Operators: 10,525</p>	<ul style="list-style-type: none"> Renewal period: An initial certificate is valid for one year and each certificate thereafter is valid for two years. 	<p>If the renewal fees are not paid, the certificate will be suspended. The operator may get a new certificate up to six months after the original due date with fees and penalties. After six months, the certificate will be revoked.</p>	<p>Fees:</p> <ul style="list-style-type: none"> Application for Exam: Grade 1: \$30 Grade 2: \$41 Grade 3: \$52 Grade 4-5: \$63 Renewal: Grade 1: \$25 Grade 2: \$36 Grade 3: \$47 Grade 4-5: \$57 Reexamination: same as application fees Late renewal: \$15 (in addition to regular renewal fee). <p>Funding:</p> <p>From renewals: \$201,520 /yr From Processing Applications: \$110,766 /yr Total Revenue: \$312,287 Dedicated fund within general fund.</p> <p>Budget: \$300,000 /yr. Note: Secretary's salary not taken from this fund. FTEs: 4.5 plus enforcement personnel</p> <p>All training is through the Community College system and/or home study through Sacramento State Univ.</p>	<p>Department has 150 field officers who have inspection responsibility.</p> <p>Agency: Department has jurisdiction on enforcement actions against operators and systems.</p> <p>A new Bill is in the State legislature that would give Department more power for enforcement. This bill is expected before the year ends.</p>	<p>No formal review.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Colorado	Colorado Department of Public Health and Environment	<p>All PWS which treat water are covered under the requirements. There is no authority over distribution systems.</p> <p>The person that has "direct responsibility" in the operations of a water treatment facility must have a certificate equal to the class of the facility or higher. In smaller facilities with no shift operation, the person with "direct responsibility" must have active, daily on-site charge and performance of operation. In larger facilities, where shift operation is necessary, "direct responsibility" includes the supervisor and the shift operators. Supervising operators shall supervise only 1 plant unless the Board has specifically issued a permit to supervise more than one plant. The complexity of the plant, distance between plants and experience of the operator are taken into account.</p> <p>Total Systems CWS: 803 NTNCWS: 165</p> <p>Total Covered Systems² CWS: 803 NTNCWS: 165</p>	Yes - to any applicant certified in another State, territory or possession of the United States, or any country where the criteria for certification are \geq Colorado	Colorado Department of Health - Article 9 of Title 25	Yes - 9 members appointed by the governor with at least 3 representing private industry. Remaining members = water & wastewater treatment and industrial plant operators and representatives of State agencies (Water Quality Control Commission, Dept. of Health, and CO Municipal League).	Treatment Plants: Classes: A-D (based on plant design flow, water source, and type of treatment)

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
CO	<ul style="list-style-type: none"> Written exam for each class. Each class must have the knowledge of the lower class requirements. <p>Experience at a water treatment facility</p> <p>Class D: 0 years Class C: 2 years Class B: 3 years Class A: 4 years</p> <ul style="list-style-type: none"> 50% of any experience requirement shall be met by actual on-site operating experience in a water treatment facility <p>Total Number of Active Operators: 5,303</p>	<ul style="list-style-type: none"> Renewal period: every 5 years 70% or higher on written renewal exam (as of July 1996, no continuing education requirements) <p>If the operator fails to renew a certificate before the expiration date, the certificate is expired. The operator may recertify up to two years after expiration by paying a fee and passing the renewal exam.</p>	<p>If a certificate is not renewed within the 2 years after the expiration date, the certificate is revoked and becomes non-renewable. Once this occurs, operators wishing to become recertified must reapply, retest, pay fees, etc.</p>	<p>Fees:</p> <ul style="list-style-type: none"> Application = \$15 Re-exam = \$10 Renewal = \$5 <p>Funding:</p> <p>All fees go toward the general fund which funds the program.</p> <p>Budget:</p> <p>Estimated annual program budget: \$100,000 -- Fees contribute about \$25,000; about \$75,000 subsidized by DW program (PWSS grant), and permits and enforcement.</p> <p>FTEs: 1.5</p>	<p>The operator or owner of a system who violates any provisions of the law is guilty of a misdemeanor offense punishable by a fine not greater than \$300. Each continuing day of violation is considered a separate offense.</p> <p>Violations are usually discovered through annual inspections conducted by District Engineers, or through general complaints.</p> <p>Agency: Department of Public Health and Environment has jurisdiction in enforcement actions against operators and systems.</p>	<p>Yes - Review by legislature every 5 years.</p>

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State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Connecticut	Department of Public Health - Water Supplies Section	<p>The statute only applies to community water systems.</p> <p>For every water treatment plant or distribution system serving $\geq 1,000$ people, there must be at least one certified water treatment operator, who is certified at the system's class level or higher, known as chief operator. In addition, each plant will have at least one other certified operator (certified at the system's class level or higher) in the event that the chief operator is not available.</p> <p>Total Systems CWS: 613 NTNCWS: 669</p> <p>Total Covered Systems² CWS: 403 NTNCWS: 0</p>	<p>Yes - The Dept. of Public Health may waive the exam requirements* in the event that the applicant has passed an examination given by another State and the Dept has entered into an agreement with that State or ABC. An agreement can be entered if the other state's (or ABC's) requirements are as stringent as those of Connecticut.</p> <p>* Each applicant is still required to meet Connecticut's training and education requirements.</p>	Connecticut General Statute, Section 25-32; Public Health Code Section 25-32-7a through Section 25-32-14	Yes- Advisory only. Operator Certification Committee consisting 8-9 members representing a balance of utilities certified in treatment and/or distribution. This group provides advice on the program, updates examinations, develops regulations by proposing changes to the Department, and provides feedback on the overall success of the program.	<p>Distribution Systems: Classes I, II, and III (based on population)</p> <p>Treatment Plants: Classes I, II, III, IV (based on a point system*)</p> <p>* See Appendix A-2 for a complete description of the point system.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
CT	<ul style="list-style-type: none"> Minimum education is a high school diploma or GED. All operators must pass ($\geq 70\%$) the written exam for each Class. <p>Experience requirements to be eligible for the distribution exam are as follows: Class I: 1 year Class II: 2 years Class III: 4 years</p> <p>Operators may substitute an equal amount of education for experience as follows: Class I: 0 years Class II: 1 year Class III: 3 years</p> <p>Experience requirements to be eligible for the treatment exam are as follows: Class I: 1 year Class II: 2 years Class III: 3 years Class IV: 4 years</p> <p>Operators may substitute an equal amount of ed. for experience as follows: Class I: 0 years Class II: 1 year Class III: 2 years Class IV: 3 years</p> <p>Total Number of Active Operators: 971</p>	<ul style="list-style-type: none"> Renewal period: triennially - no CEUs needed, just reapplication <p>Lost or expired certificates may be renewed for up to 6 months without reexamination.</p>	<p>If an operator has not renewed his/her certificate 6 months after the expiration date, reexamination is required for renewal.</p> <p>Information on revoked certificates not available.</p>	<p>Fees:</p> <ul style="list-style-type: none"> Examination: \$25.00 (strictly to cover the cost of the exam - goes to ABC) <p>Funding: Funding for the operator certification program comes from a general fund, it is built into the water supply budget. (There is no breakdown within the budget strictly for operator certification)</p> <p>Budget: Data not available. The budget is combined with other programs, it can not be separated out.</p> <p>FTEs: between 0.15 and 0.2</p>	<p>The Dept. may revoke an operators certificate due to incompetence, deception, or fraud.</p> <p>An administrative order is issued against the system for operating without a certified operator.</p> <p>Violations are most often discovered through periodic reviews of the database and sanitary surveys.</p> <p>Agency: CT Department of Public Health has jurisdiction over enforcement actions against both the system and the operator.</p>	No formal review.

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State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Delaware	<p>Secretary of Delaware Health and Social Services</p> <p>Grants variances, certifications, special operator certifications (grandfather or Operator-in-Training), issues Notices of Violation, suspends or revokes licenses.</p>	<p>All PWS except seasonal supplies (e.g. park restroom - includes some transients) are covered under the law.</p> <p>2 years after effective date of reg:</p> <p>all PWS treatment facilities must be under the direct-responsible-charge (DRC)* of a person possessing a valid base level water operator's license and all applicable endorsements.</p> <p>all PWS dist systems capable of producing >500 gpm at 20 psi must be under the DRC of a valid base level water operator's license, and \geq a dist endorsement.</p> <p>Any PWS that is a combined water treatment/dist system must be under the DRC of a person possessing a valid base level water operator's license, and all appl. endorsements.</p> <p>Any PWS that is a combined treatment/dist and capable of producing >500 gpm at 20 psi must be under the DRC of a person possessing a valid base level water operator's license, and \geq a dist endorsement.</p> <p>* DRC refers to the operator(s) assigned accountable for performance of active, on-site operational duties.</p> <p>Total Systems CWS: 206 NTNCWS: 91</p>	<p>Yes - Licensed operators from another State or country may be granted a certificate if there are no conflicts with their original certificate and if the criteria for the original certificate are \geq Delaware.</p>	<p>DRAFT Regulations: 16 Delaware Code Section 122(3)(c)</p> <p>-Regulations still pending</p>	<p>Yes - Advisory Council of nine (9) members appointed by the Secretary of Delaware Health and Social Services. Comprised of: 1 representative of the Division of Public Health, 3 reps of the general public, 2 reps from local govt. agencies, 1 rep from business/industry, 1 rep of a public water utility, 1 rep with valid water operator's license (or eligible to be licensed)</p> <p>Council meets at least quarterly.</p> <p>Council advises and assists Secretary, establishes procedures and guidelines for examinations, granting of licenses, renewal, suspension, fee collection. Evaluates training and reciprocity programs.</p> <p>Develops regulations, makes recommendations to the Secretary regarding disciplinary sanctions, issuance and renewal of licenses.</p>	<p>Public water systems are classified according to the treatment process(es) they operate. These processes (also called endorsements) are as follows:</p> <ul style="list-style-type: none"> • Disinfection • Chemical Feed • Filtration • Surface Water Operations • Other Specified Treatment • Distribution

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
DE	<ul style="list-style-type: none"> • Base Level Water Supply Operator: High School (or equivalent), OR 3 yrs of acceptable operating experience and a $\geq 70\%$ on the written exam. • Circuit Rider: Must be certified for all endorsements (treatment processes) required for the water systems for which he/she is responsible. <p>Must be able to reach the water system within 2 hours of notification of an emergency.</p> <p>Must visit each water system for which he/she is in direct-responsible charge 3 times a week.</p> <ul style="list-style-type: none"> • Operator-in-Training: if lacking required education/experience, may receive OIT license if written exam is passed. • Grandfather Clause: must provide documentation that proves individual has operated a facility for at least 5 years prior to adoption of these regulations. <p>Total Number of Active Operators: Approx 500</p>	<ul style="list-style-type: none"> • Renewal period: biennially <p>Continuing education required every 2 yrs:</p> <p>--12 additional contact hrs + 1.5 CEUs for systems whose distribution is capable of producing flow >500 gpm at 20 psi.</p> <p>--12 educational contact hrs for systems not capable of producing flow >500 gpm at 20 psi.</p> <p>An expired license may be renewed within one year of the expiration date by payment of fee.</p>	<p>After one year from the expiration date, operators must submit a new application and may be required to take the appropriate exam.</p> <p>The Advisory Council will develop a policy for recertification of revoked licenses in the future.</p>	<p>Fees:</p> <ul style="list-style-type: none"> • Application for Initial License: \$50.00 • Application for Renewal of Annual License: \$50.00 <p>Funding:</p> <p>-- Not a self-supporting program, PWSS \$ makes up the difference for funding of the program.</p> <p>Budget:</p> <p>\$25,000/year (estimate)</p> <p>FTEs: approx. 1.5 (no one full time)</p>	<p>PWSs or operators will receive a Notice of Violation if the Secretary believes a violation of these regulations is occurring.</p> <p>Any person who neglects or fails to comply with this regulation shall be subject to penalty as provided in 16 Delaware Code 107.</p> <p>Violations may be discovered through complaints by customers or sanitary surveys. The Advisory Council then conducts an investigation of the alleged violations.</p> <p>Agency: Health and Social Services has jurisdiction over enforcement actions against operators and systems.</p>	No formal review.

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State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Florida	State of Florida, Department of Business and Professional Regulation (certification program transfers to Department of Environmental Protection-effective 10/1/97).	All public water systems are required to have a certified operator. A person may not perform the duties of an operator of a water treatment plant unless licensed. Operator means any person who is in onsite charge of the actual operation, supervision, and maintenance of a WTP, and includes the person in onsite charge of a shift or period of operation during any part of the day. Total Systems CWS: 2,091 NTNCWS: 1,116 Total Covered Systems² CWS: 2,091 NTNCWS: 1,116	No	Chapter 468, Sections 540-552, Florida Statutes, and Chapter 61E12-41 Florida Administrative Code	Yes- Water/Wastewater Certification Technical Advisory Council advises Department on technical matters (e.g., flow rates, type of treatment, etc.)	Water Treatment Plants (incl. CWS and NTNCWS): Classes A-D (based on plant design flow, water source, and complexity of treatment (Categories I-V))

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
FL	<ul style="list-style-type: none"> • Minimum high school education for all types • Constructive experience consisting of : attendance at 1 annual or 2 regional short schools within past 2 yrs OR completion of 12 hours of college course work OR 6 months additional experience beyond min. required for actual experience. (Class A-C only) • ≥65% on department's Class specific test. • Document successful completion of an approved training course within 5 years of filing application. (Class A-C only) • Class D: must document at least 3 calendar months plant experience. • Class C: must document at least 1 year (2,080 hours) of experience. • Class B: must document at least 3 years (6,240 hours) of experience. • Class A: must document at least 5 years (10,400 hours) of actual experience <p>Total number of active operators: 5,706</p>	<ul style="list-style-type: none"> • Renewal period: biennially - expires on last day of February (renewal notices mailed 90 days before an active certificate expires) <p>After expiration date, applicant must pay \$50 late fee. After two years past expiration, certificate is null and void.</p> <p>Department shall notify licensee upon renewal or denial of renewal. Licensee may request hearing within 14 days of receipt of notice.</p>	<p>After two years past expiration, must reapply and pass examination.</p> <p>Operators who have their licences revoked cannot be recertified.</p>	<p>Fees:</p> <ul style="list-style-type: none"> • Application, Examination, licensure and unlicensed activity fee: \$230.00 • Replace lost certificate fee: \$25.00 • Examination review (voluntary): \$50.00 • Hand scoring of exam (voluntary): \$10.00 • Renewal: \$80.00 • Renewal of inactive license: \$50.00 <p>Funding: All fees go to the general Dept. of Business and Professional Regulation fund.</p> <p>The revenue from fees covers most of the cost of the operator certification program.</p> <p>Budget: Receive budget from BPR fund. Approximately \$400,000.</p> <p>FTEs: 1.5 (may include water and wastewater).</p>	<p>Penalty for a violation of 468.551(f): "Any person who violates any provision of this section is guilty of a misdemeanor of the first degree..."</p> <p>Disciplinary proceedings may be brought for operating a plant without a valid license, submitting false information, operating a plant in a manner inconsistent with SOPs, or otherwise violating regulations or a lawful order of the department.</p> <p>Department may impose penalties of \$250-\$1000.</p> <p>Violations are most often discovered through system inspections conducted by the district offices of FL DEP</p> <p>Agency: FL Dept of Business and Professional Regulation has jurisdiction in enforcement actions against operators. FL Dept of Environmental Protection has jurisdiction in enforcement actions against systems*.</p> <p>*Note: As of July 1, 1997, FL DEP will have jurisdiction over both operators <u>and</u> systems.</p>	No formal review.

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State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Georgia	GA State Board of Examiners for Certification of Water and Wastewater Treatment Plant Operators and Laboratory Analysts (within the office of the Secretary of State)	<p>All PWSs (according to Fed. definition) must have at least one certified operator. All operators must be certified.</p> <p>An operator is any person who performs operational duties (consisting of: for treatment - day-to-day process control decisions which may affect the treatment and quality of the treated water; for distribution - on-site supervision of cleaning, maintenance, and repair of the system) at water distribution systems, water supply systems, or water treatment plants.</p> <p>The operator in responsible charge of a PWS shall hold a certificate of a class equal to or higher than the class of the plant system being operated. At surface water plants it is required that a certified person be available on-site at all times while plant is in operation.</p> <p>Total Systems CWS: 1,642 NTNCWS: 311</p> <p>Total Covered Systems² CWS: 1,642 NTNCWS: 311</p>	Yes - The Board may issue a certificate w/o examination to any person who holds a certificate in good standing issued by another country or State, if the country or State has requirements similar to those of the Board. Person must still submit written application, have H. S. Diploma/GED, submit fee, and have the other country/State complete an endorsement form stating that applicant is in good standing and is currently certified.	Title 43, Chapter 51 Official Code of Georgia Annotated; and Rules of the GA State Board of Examiners for Certification of Water and Wastewater Treatment Plant Operators and Laboratory Analysts - Chapter 750-1 to 750-10	<p>Yes - GA State Board of Examiners for Certification of Water and Wastewater Treatment Plant Operators and Laboratory Analysts is composed of 6 members appointed by the Governor</p> <p>Board meets at least twice a year.</p> <p>Board has authority to issue, renew, revoke, and reinstate certification. May start disciplinary proceedings, impose sanctions.</p>	<ul style="list-style-type: none"> • Distribution Systems • Public Water Supply Systems (PWSS) - Classes I-IV (based on system size) <p>Class IV system is a very small system serving a population of less than 1,000.</p> <p>Systems are classified by the GA Environmental Protection Division (the primacy agency)</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
GA	<ul style="list-style-type: none"> All applicants must have at least a high school degree (or GED) and pass the written exam (Class IV systems are exempt from this requirement). <p><i>Distribution systems:</i> + 3 months experience + 27 hrs course work</p> <p><i>PWSS:</i> Class IV: + 1 month exp. + 6 hrs course work Class III: + 3 months exp. + 40 hrs course work Class II: + 2 yrs. exp., OR Bachelor of Science (BS) + 1 yr. (+ current Class III certification and 48 hrs advanced course work) Class I: + 3 yrs. exp., OR BS + 2 yrs. (+ current Class II certification)</p> <p>All applicants except Class IV operators must pass a written exam.</p> <p>Total Number of Active Operators: 1,987 treatment operators, 432 distribution operators (It is possible to have dual certification, therefore, some of the treatment operators may be included in the figure for distribution.)</p>	<ul style="list-style-type: none"> Renewal period: biennially - all certificates expire June 30 of odd-numbered years. <p>Continuing education requirements: <i>Class IV:</i> 2 points <i>Class III:</i> 6 points <i>Class II:</i> 12 points <i>Class I:</i> 18 points</p> <p>Certificates may be renewed within 3 months of expiration with the payment of a surcharge.</p>	<p>Failure to renew within 3 months of expiration of a renewal year shall have the same effect as revocation of the certificate.</p> <p>Within 2 years of revocation, the Board may reinstate a certificate to an applicant who submits the appropriate reinstatement application, fee and proof of continuing education.</p> <p>After 2 years, Board may reinstate certification if the above requirements (for reinstatement within 2 years) are fulfilled and the exam is retaken and passed.</p>	<p>Fees: Board collects fees for applications, exams, renewal.</p> <p>Funding: Board is self-supporting. However, generated funds must go to the State general fund first and then be reappropriated to the program.</p> <p>Budget: \$93,000 (rough estimate)</p> <p>FTEs: 0.5</p>	<p>Board may revoke or suspend the certificate of an operator following a hearing conducted in accordance w/ the GA Admin. Procedure Act.</p> <p>EPD may take action against a system for failure to have a certified operator.</p> <p>Board may investigate the actions of any operator or anyone who shall assume to act in such capacity if the Board believes a violation of laws and regulations regarding operators has occurred.</p> <p>Violations are most often discovered through periodic investigations, monthly monitoring reports, or complaints to the Board (which would be referred to EPD or Secretary of State's office for investigation).</p> <p>Agency: GA State Board of Examiners for Certification of Water and Wastewater Treatment Plant Operators and Laboratory Analysts handles enforcement against operators while EPD enforces the requirements of systems.</p>	<p>Yes - The Dept. Of Business and Professional Regulation reviews all certification programs approximately every 5 years.</p>

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State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Hawaii	Department of Health (Environmental Management Division, Safe Drinking Water Branch)	<p>All public water systems that are surface water and GWUDI systems require a certified operator. These systems shall, at all times, be under direct responsible charge of an operator certified at or above the numerical classification of the system. Direct responsible charge means active on-site performance of operational duties and control over the operation of a water treatment plant by an operator with regular certification or Grade 4 temporary certification. A person in direct responsible charge makes independent decisions during the operation of a WTP which can affect the sanitary quality, safety and adequacy of water delivered to consumers.</p> <p>Total Systems CWS: 125 NTNCWS: 16</p> <p>Total Covered Systems: CWS: 13 NTNCWS: 0</p>	<p>Yes - An applicant certified in another State, territory, or possession of the U.S. or a country listed in the "certification contacts" section of Association of Boards of Certification (ABC) annual directory may apply for certification w/o an exam in the grade in which he/she is currently certified.</p> <p>Applicant must submit a copy of his/her current certificate and proof of passing an exam administered by the State, country or ABC that is equivalent to that administered by Hawaii.</p> <p>Other factors taken into consideration: # of years of experience and type of experience</p>	<p>Chapter 340F "Hawaii Law for Mandatory Certification of Operating Personnel in Water Treatment Plants;" Hawaii Administrative Rules, Chapter 25 of Title 11 with amendments.</p> <p>"Rules Relating to Certification of Operating Personnel in Water Treatment Plants." (§11-25-1-15)</p>	<p>Yes - State Board of Certification to be placed in the Department of Health. Consists of five members appointed by the Governor.</p> <p>4 members qualified in sanitary engineering or drinking water treatment plant operation and 1 from the State agency responsible for the safe drinking water program.</p> <p>Board is authorized to: write regulations, issue, revoke, and suspend certificates, establish & collect fees, conduct exams, develop training programs, delegate responsibility of administering requirements of this chapter.</p> <p>Board classifies all water treatment plants.</p>	<p>Classes 1-4:</p> <p>Class 1: Slow sand filtration.</p> <p>Class 2: Membrane filtration, cartridge filtration, granular activated carbon filtration, packed aeration towers or air stripped towers.</p> <p>Class 3: Diatomaceous earth filtration or water treatment plants with similar features to diatomaceous earth filtration.</p> <p>Class 4: Conventional treatment, direct filtration, desalting.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
HI	<ul style="list-style-type: none"> • Minimum of high school diploma for all classifications • $\geq 70\%$ on exam • Minimum experience: <i>Grade 1:</i> 1 yr work experience and certification. <i>Grade 2:</i> 2 yrs work experience with at least Grade 1 certification or 1 yr experience with BA, or Grade 3-4 certification. <i>Grade 3:</i> 5 yrs experience (+ 1 yr of full-time work experience with Class 3 or 4 WTP), or an associate degree with 3 yrs experience, or some variation of college credits, grade 3 and 4 certification and experience. <i>Grade 4:</i> 1 yr of full time experience as Grade 3 operator at a Class 3 or 4 WTP or some variation of college credit and work experience at Class 3 or 4 WTP. <p>Temporary and provisional certifications and operator in training certifications may also be issued.</p> <p>Total Number of Active Operators: 24</p>	<ul style="list-style-type: none"> • Renewal period: biennially <p>Continuing education: Grade 1: 1 CEU(8 hours) required Grade 2: 1 CEU required Grade 3: 2 CEUs (16 hours) required Grade 4: 2 CEUs required</p> <p>Must be renewed by Oct. 17th; certification will expire Oct. 31.</p> <p>30 day grace period from November 1-30.</p>	<p>After Nov. 30 of a renewal year, operator w/ expired certification may no longer perform duties until s/he applies for renewal and is approved.</p> <p>Between Nov. 1 and Nov. 30, renewal fee is \$20. After Nov. 30, renewal fee is \$40 until following Oct. 31, after which operator must reapply and retake the exam to be certified.</p> <p>Recertification of operators with revoked certificates depends on the initial violation and is on a case by case basis.</p>	<p>Fees: Collected for issuance, re-certification, and examination.</p> <ul style="list-style-type: none"> • Application: \$20 • exam fee \$30 • OIT, provisional, and temporary certification: \$20 • reciprocity: \$30 • renewal: \$20 • late renewal: \$20 • replacement of lost certificate and ID card: \$10 and \$15, respectively <p>Funding: All fees go to the State fund</p> <p>For exams, Safe Drinking Water Branch money used</p> <p>Budget: approx \$2000</p> <p>FTEs: <1</p>	<p>It shall be unlawful for systems to operate without an operator that is duly certified.</p> <ul style="list-style-type: none"> • If found in violation, a civil penalty of not more than \$25,000 a day, for each day the violation continues, will be applied. <p>Legal action can be taken by the Board.</p> <p>Facilities are usually checked by the sanitarian on the island.</p> <p>Agency: The Board of Certification of Operators has jurisdiction in enforcement actions against operators. The Department of Health's Environmental Management Division has jurisdiction in enforcement actions against systems.</p>	<p>No. There is no formal review process but an informal self assessment is ongoing. Since 1993 the program's rules have been amended three times.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Idaho	ID Dept. of Environmental Quality	<p>Program is voluntary.</p> <p>Total Systems CWS: 728 NTNCWS: 266</p> <p>Total Covered Systems² CWS: 70 NTNCWS: 50</p>	Yes - On a case by case basis the Board may waive examination for applicants holding certificates issued by most other States with equivalent certification requirements (provided the State is a member of ABC).	<p>Idaho Water and Wastewater Operators Certification Guidelines: Revised October 1996.</p> <p>• Program is voluntary.</p>	<p>Yes - Board consists of 8 - 10 members. 3 currently employed water facility or system operators holding a valid certification of Class III or higher issued by the Board, 1 faculty member of a college, etc, 1 Ad Hoc member representing the State Department of Health and Welfare, 1 member who is a certified operator that holds a title of city planner, etc, and 1 Ad Hoc member(s) representing CEU board.</p> <p>Board Members will be nominated by employers (for IDHW) or by associations they represent (ID Assoc. Of Cities, AWWA, etc.)</p>	<p>Class based on population served for distribution systems:</p> <p>Class I: 1,500 or less Class II: 1,501 to 15,000 Class III: 15,001 to 50,000 Class IV: 50,001 and greater</p> <p>Water treatment plants and very small water systems (VSWs) based on a point system which takes into consideration types of treatment.</p> <p>VSWs: 30 points and ≤ 500 people Class I: ≤ 30 points Class II: 31-55 Class III: 56-75 Class IV: > 76</p> <p>See Appendix A-3 for a complete description of the classification system.</p>

1. This column contains information on the certification board or equivalent agency in the State operator certification program.

2. The total number of covered systems refers to those systems that are currently required by State statute or regulation to have a certified operator. There are some discrepancies between the data we obtained from the States and the data in the Safe Drinking Water Information System (SDWIS). For national uniformity, we are using the SDWIS data in States where 100% coverage of CWS and NTNCWS applied.

State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
ID	<ul style="list-style-type: none"> • $\geq 70\%$ on class specific exam • Minimum experience: (All education may be substituted for specific work experience in each Class) <p><i>Class I:</i> 1 yr + GED or high school diploma <i>Class II:</i> 3 yrs exp OR 18 months exp + 1.5 yrs of higher education. <i>Class III:</i> 2 yrs experience <i>Class II,</i> 4 yrs total exp + 2 yrs of higher education. <i>Class IV:</i> 2 yrs experience as a Class III (4 yrs total exp), + 4 yrs higher education.</p> <p>For Classes III and IV, at least 2 yrs of operating exp must be responsible charge exp.</p> <p>To obtain Operator in Training certification, completion of a Board-approved training school or 3 months onsite exp is required. After passing an OIT exam, obtain OIT certification which lasts 3 yrs.</p> <p>Total Number of Active Operators: 566 (71 of which hold double certification - water & distribution)</p>	<ul style="list-style-type: none"> • Renewal period: annual <p>0.6 CEUs required for renewal</p> <p>Renewal application must be received within 60 days of expiration date or certificates will become invalid.</p> <p>Certificates of operators who terminate their employment will be valid for 2 years without required renewal.</p>	<p>Operators whose certificates are invalidated may be renewed provided appropriate proof of competency is presented to the Board and reinstatement fees are paid.</p> <p>If an operator's certificate has been revoked, he/she may appeal the decision to the Board - recertification will be at the discretion of the Board</p>	<p>Fees:</p> <ul style="list-style-type: none"> • Exam fee: \$55 • Renewal: \$30 <p>Fee schedule set by Certification Board of Directors as deemed necessary for financial operation of program.</p> <p>Funding:</p> <p>All fees shall be deposited in a fund to be used by the Board for program administration</p> <p>Budget:</p> <p>\$26,700 (approx.)</p> <p>FTEs: 0.75</p>	<p>Public water systems are not required to have certified operators.</p>	<p>No formal review.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Illinois	Illinois Environmental Protection Agency; Bureau of Water	<p>Every PWS in Illinois shall have on its operational staff at least one natural person certified as competent as a water supply operator.</p> <p>Each CWS which includes coagulation, lime softening, or sedimentation as part of its primary treatment must employ at least one person certified as a Class A water supply operator.</p> <p>Each CWS which includes filtration, aeration and filtration, or ion exchange equipment as part of its primary treatment must employ at least one person certified as a Class B or Class A water supply operator.</p> <p>Each CWS which utilizes chemical feeding only must employ at least one person certified as a Class C, Class B or Class A water supply operator.</p> <p>Each non-exempt community public water supply in which the facilities are limited to pumpage, storage, or distribution must employ at least one person certified as a Class D, Class C, Class B or Class A water supply operator</p> <p>Total Systems CWS: 1,810 NTNCWS: 486</p> <p>Total Covered Systems² CWS: 1,472 NTNCWS: 486</p>	<p>Yes - The operators' certificate must be valid in a State, territory, possession or country with requirements \geq IL. The region must also extend reciprocity to operators certified in IL.</p> <p>Applicants must submit an application and a fee (no examination).</p>	<p>State of Illinois Water Supply Operator Certification Law: Chapter 111 ½; Paragraph 501-523</p> <p>State of Illinois Rules and Regulations: Title 35, Subtitle F, Chapter II, Part 680</p>	<p>Yes- Water Supply Operators' Advisory Board. The Advisory Board consists of the Director and five other members appointed by the Governor, one of whom must be a chief executive officer of a municipality operating its own municipal water plant.</p> <p>Pollution Control Board, at the sworn written request of an applicant, registrant or certificate holder, conducts hearings or proceedings regarding the IL EPA's certification decisions.</p>	<p>Public Water Supply;</p> <p>Community Water Systems:</p> <p>Class D: distribution, storage, pumping</p> <p>Class C: groundwater with disinfection, fluoridation</p> <p>Class B: groundwater and iron removal, ion exchange, softening, or aeration</p> <p>Class A: surface water or GWUDI.</p> <p>Non-community water systems are classified by Department of Public Health.</p>

1. This column contains information on the certification board or equivalent agency in the State operator certification program.

2. The total number of covered systems refers to those systems that are currently required by State statute or regulation to have a certified operator. There are some discrepancies between the data we obtained from the States and the data in the Safe Drinking Water Information System (SDWIS). For national uniformity, we are using the SDWIS data in States where 100% coverage of CWS and NTNCWS applied.

State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
IL	<ul style="list-style-type: none"> • ≥ 70 % on class specific exam • Minimum experience: <u>Class D</u>: high school $\pm \geq 6$ months of acceptable training, etc, OR grammar school $\pm \geq 1$ yr training, etc. <u>Class C</u>: high school $\pm \geq 1$ yr equivalent training, etc., OR grammar school $\pm \geq 2$ yrs training, etc. <u>Classes A and B</u>: high school (or equivalent) $\pm \geq 3$ yrs acceptable study, training, and responsible experience, OR grammar school $\pm \geq 4$ yrs of acceptable study, training, or responsible experience. Credit towards the experience requirement may be granted based on the successful completion of waterworks courses/seminars. Such credit cannot exceed 1 year of experience unless the operator has a 4 year degree in a related field (e.g., natural sciences, engineering). If so he/she may use 1.5 years of school towards the experience requirement. * Every certified operator must be able to read and write English and must produce evidence deemed acceptable to the IL EPA as to their character and actual hands-on experience. <p>Total Number of Active Operators: 4,288</p>	<ul style="list-style-type: none"> • Renewal period: every 3 years (No re-examination is required provided the renewal is for the same operator class.) <p>No CEUs.</p> <p>Operators holding certificates that have expired for less than 5 years must pay both a renewal and a restoration fee; no additional examination is required for such operators.</p>	<p>Operators holding certificates that have been expired for more than 5 years must reapply. The reapplication process requires successful completion of a written examination to determine competency for the given operator class.</p> <p>Recertification of revoked certificates depends on the original ruling. If the ruling specifies a specific time period for which the certificate is revoked then the operator may become recertified but he/she must reapply.</p>	<p>Fees:</p> <ul style="list-style-type: none"> • \$10.00 fee collected for exam, issuance of certificate, renewal of certificate, and issuance of duplicate certificate. • \$30.00 fee for applicants without a valid IL certificate or persons applying for a classification revision. <p>Funding:</p> <p>All fees collected are deposited into the Environmental Protection Permit and Inspection Fund.</p> <p>Fees cover <50% of cost of running certification program</p> <p>When necessary, Bureau of Water may apply for money from the Permit and Inspection fund for operator certification.</p> <p>Budget:</p> <p>Data not available</p> <p>FTEs: 1.8</p>	<p>The IL Pollution Control Board is granted authority to conduct hearings against any public water supply owner for violations of operator coverage requirements contained in Section 1 of the Act. The violator may be penalized by a fine between \$100 and \$1,000 for each offense.</p> <p>IL EPA may suspend, revoke, or refuse to issue certificates to operators.</p> <p>Action against systems may be initiated by "concerned citizens" or by regional engineers (monitor approx. once every three years)</p> <p>Agency: IL Environmental Protection Agency has jurisdiction in enforcement actions against operators. IL Pollution Control Board has jurisdiction in enforcement actions against systems.</p>	<p>No. There is no formal review process, however occasional unannounced reviews are conducted by the state attorney general to determine whether or not the program is meeting the requirements of the State certification law. In addition the exam committee reviews the certification exam once a year.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities																
Indiana	Indiana Department of Environmental Management.	<p>Generally an operator's certificate grade allows them to operate a public water treatment plant or system of an equivalent or lower grade.</p> <table><tr><td><u>Grade</u></td><td><u>Facility Class</u></td></tr><tr><td>DS</td><td>DS</td></tr><tr><td>DS-L</td><td>DS-L, DS</td></tr><tr><td>CT</td><td>CT</td></tr><tr><td>PF</td><td>PF, CT</td></tr><tr><td>GF</td><td>GF, PF*, CT</td></tr><tr><td>AT</td><td>AT, GF, PF, CT</td></tr><tr><td>SP</td><td>SP</td></tr></table> <p>Each PWS must have a certified operator-in-charge. However, an operator may be designated in responsible charge of more than 1 plant or system if he/she can show the Department that he/she can provide adequate supervision of systems. Operator in charge-responsible for overall daily operation, supervision or management of PWS.</p> <p><i>Grandfather Clause:</i> A certificate issued on the basis of the applicant having been in responsible charge of a treatment plant or distribution system on or before 7/1/72 remains valid until the facility's classification changes or the operator is no longer in direct responsible charge.</p> <p>Total Systems CWS: 900 NTNCWS: 679 Total Covered Systems² CWS:705 NTNCWS: No data available.</p>	<u>Grade</u>	<u>Facility Class</u>	DS	DS	DS-L	DS-L, DS	CT	CT	PF	PF, CT	GF	GF, PF*, CT	AT	AT, GF, PF, CT	SP	SP	<p>Yes - Upon receipt of an application and associated fee, a certificate may be issued, without examination to foreign operators holding certificates of a comparable class, if the certificate held is of a standard not lower than Chapter 273 requirements.</p> <p>No continuing education units will be required for certificates transferred by reciprocity. However, after the transfer, for all future renewal periods, the required number of continuing education hours must be earned and credited.</p>	<p>Certification of Water and Wastewater Treatment Plant Operators, Acts of 1967, Chapter 273, as amended-IC 13-1-6.</p> <p>Indiana Statute - Water Treatment Operators, IC 13-18-11</p> <p>Title 327 Indiana Administrative Code 8-12, Operator Certification Rule.</p>	No	<p><u>Water Distribution Systems:</u> systems serving at least 25 service connections used by year-round residents or regularly serving at least 100 year-round residents. Systems serving fewer than 15,000 people are <i>Class DS</i>; systems serving 15,000 or more people are <i>Class DS-L</i>.</p> <p><u>Water Treatment Plants:</u> plants serving at least 25 service connections used by year-round residents or regularly serving at least 100 year-round residents. Water treatment plant classifications are described in Appendix A-4.</p>
<u>Grade</u>	<u>Facility Class</u>																					
DS	DS																					
DS-L	DS-L, DS																					
CT	CT																					
PF	PF, CT																					
GF	GF, PF*, CT																					
AT	AT, GF, PF, CT																					
SP	SP																					

* The Class PF treatment plant operator is qualified for systems not using ion exchange and serving fewer than 15,000 persons.

1. This column contains information on the certification board or equivalent agency in the State operator certification program.

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹																
IN	<p>See Appendix A-4 for a complete description of the classification system.</p> <p>Total Number of Active Operators: 2,109</p>	<p>• Renewal period: biennially</p> <p>Contact Hours required:</p> <table><thead><tr><th>Grade</th><th>Training Hours</th></tr></thead><tbody><tr><td>DS</td><td>5</td></tr><tr><td>DS-L</td><td>10</td></tr><tr><td>CT</td><td>10</td></tr><tr><td>PF</td><td>15</td></tr><tr><td>GF</td><td>15</td></tr><tr><td>AT</td><td>20</td></tr><tr><td>SP</td><td>20</td></tr></tbody></table> <p>Operators have 36 months after expiration date to renew certification</p>	Grade	Training Hours	DS	5	DS-L	10	CT	10	PF	15	GF	15	AT	20	SP	20	<p>An applicant whose certification has expired after 36 months must show proof of continuing education before being eligible to retake the exam corresponding to their certification grade. Additionally, payment of any arrearage fees is required.</p> <p>Revoked certificates: Operator must wait 3 years before retaking examination for recertification.</p>	<p>Fees:</p> <p>Certification Fee: \$30.00</p> <p>Duplicate/Replacement Fee: \$5.00</p> <p>Biennial Renewal Fee: \$30.00</p> <p>Funding:</p> <p>All funds are taken from State's general fund.</p> <p>Budget:</p> <p>No data available</p> <p>FTE: 2.0 (professional and technical staff)</p>	<p>"A person who violates IC 13-1-6 commits a class C infraction." Each violation constitutes a separate offense.</p> <p>Agency: Department of Environmental Management has jurisdiction on enforcement actions against operators and systems and inspection of facilities.</p>	No formal review.
Grade	Training Hours																					
DS	5																					
DS-L	10																					
CT	10																					
PF	15																					
GF	15																					
AT	20																					
SP	20																					

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Iowa	Iowa Department of Natural Resources	<p>The requirement for a certified operator and the number of operators required is dependant on how the facility's shifts are set up. The operator in charge shall hold a certificate of the same classification of the plant or water distribution system and of equal or higher grade than the plant or distribution system. Operator in charge means the person(s) on-site directly responsible for a plant or distribution system. Any person who is responsible for the operation of a plant operating shift or a distribution subsystem and is under the supervision of the operator in charge shall be certified in a grade no less than a Grade II level for Grade III and IV plants and distribution systems and Grade I for all other plants and distribution systems. (On-site supervision may not necessarily mean full time attendance at the plant or distribution system.)</p> <p>Total Systems CWS: 1,156 NTNCWS: 134</p> <p>Total Covered Systems² CWS: 1,156 NTNCWS: NTNCs are not required to have a certified operator. However, currently, 100% of these systems are covered. (134)</p>	<p>Yes - Case-by-case Applicants certified under another State's mandatory certification program which has been accepted by the Department as being generally equivalent to the Iowa examination, education and experience requirements, can be certified without examination.</p> <p>Applicants certified under another State's voluntary certification program, may be granted certification upon completion of the Iowa examination for certification.</p>	<p>Iowa Code - Title VI, Chapter 81.</p> <p>Definitions contained in Iowa Code section 455B.211 also apply to Chapter 81 Part 2 455.211-224.</p>	No	<p><i>Distribution Systems:</i> Classifications (Grade I-III) based on system type (1- municipal and benefitted water districts, 2- rural water districts) and pumpage in MGD.</p> <p><i>Treatment Plants:</i> Classifications (Grade I-IV) based on 8 different types of treatment ranging from iron or manganese removal, aeration and/or chemical additions to using activated carbon for THM or synthetic organics removal and pumpage in MGD.</p> <p>See Appendix A-5 for a complete description of the classification system.</p>

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2. The total number of covered systems refers to those systems that are currently required by State statute or regulation to have a certified operator. There are some discrepancies between the data we obtained from the States and the data in the Safe Drinking Water Information System (SDWIS). For national uniformity, we are using the SDWIS data in States where 100% coverage of CWS and NTNCWS applied.

State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
IA	<p>Minimum education and experience requirements must be achieved to be eligible for the exam.</p> <p><i>Grade I:</i> high school (or GED) + 1 yr on-the-job experience</p> <p><i>Grade II:</i> high school (or GED) + 3 yrs on-the-job experience</p> <p><i>Grade III:</i> high school (or GED), + 2 yrs post high school + 4 yrs on-the-job experience</p> <p><i>Grade IV:</i> high school (or GED), + 4 yrs post high school + 4 yrs on-the-job experience (including 1 yr direct responsible charge experience in a grade III or IV plant)</p> <p>All eligible applicants must take and pass the written exam. (Operators of systems serving <250 people with no treatment are exempt from this requirement.)</p> <p>Total Number of Active Operators: 2,119</p>	<ul style="list-style-type: none"> • Renewal period: biennial <p><u>Continuing education:</u></p> <p><i>Grade III or IV:</i> 2 units or 20 contact hrs/ certificate/2 yr. renewal period.</p> <p><i>All other operators (except IR):</i> 1 unit or 10 contact hrs/ certificate/2 yr renewal period.</p>	<p>An operator may not continue to operate a plant or distribution system after expiration of a certificate. If a certified operator fails to renew certification within 30 days following expiration, the right to renew automatically terminates.</p> <p>Recertification is allowed at any time following such termination, provided the applicant successfully completes an exam.</p>	<p>Fees:</p> <ul style="list-style-type: none"> • exam: \$20 • certification: \$8 • renewal: \$24 • late application penalty: \$12 <p>Funding:</p> <p>All fees go into a dedicated fund for administration of the operator certification program. Additional funding comes from other programs since no there are no full time employees for operator certification (based on staffing levels).</p> <p>Budget:</p> <p>Additional information on program budget not available.</p> <p>FTEs: 0.25 (includes water and wastewater)</p>	<p>Enforcement procedures against a system in violation include: A letter with a compliance schedule, a notice of violation (NOV), an administrative order, and/or a court order.</p> <p>Violations are most often discovered during the renewal process and through sanitary surveys.</p> <p>Agency: Department of Natural Resources has jurisdiction in enforcement against operators and systems.</p>	<p>Yes - Ad Hoc Operator Certification Committee reviews program bi-monthly.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities												
Kansas	Kansas Department of Health and Environment (Bureau of Water)	<p>Each PWS must have an operator who has direct responsibility for supervising the operation and management of the system whose qualifications are commensurate with the following.</p> <table><tr><td><u>Facility</u></td><td><u>Operator Class</u></td></tr><tr><td>Small</td><td>Small System, System I, II, III, or IV</td></tr><tr><td>Class I</td><td>I, II, III, or IV</td></tr><tr><td>II</td><td>II, III, or IV</td></tr><tr><td>III</td><td>III or IV</td></tr><tr><td>IV</td><td>IV</td></tr></table> <p>Any person designated by a governing body or owner to have been in charge of the operation or supervising the operation of a water supply system on the effective date of Article 45 was provided certification without examination.</p> <p>Total Systems CWS: 916 NTNCWS: 79</p> <p>Total Covered Systems² CWS: 916 NTNCWS: 79</p>	<u>Facility</u>	<u>Operator Class</u>	Small	Small System, System I, II, III, or IV	Class I	I, II, III, or IV	II	II, III, or IV	III	III or IV	IV	IV	Yes - Upon receipt of an application and associated fee, certification may be granted, without examination, to operators of other States, territories or countries holding valid certificates of a comparable class.	Kansas Statutes Annotated Article 45 and Kansas Administrative Regulations 28-16-30 through 28-16-36.	No	<p>Small System: --Distribution system only: No limit on population. --Chlorination only: < 501 people served <i>Class I:</i> --Chlorination: 501-1,500 --Treatment: < 501 <i>Class II:</i> --Chlorination: 1,501-5,000 --Treatment: 501-2,500 <i>Class III:</i> --Chlorination: 5,001-20,000 --Treatment: 2,501-10,000 <i>Class IV:</i> --Chlorination: > 20,000 --Treatment: > 10,000</p>
<u>Facility</u>	<u>Operator Class</u>																	
Small	Small System, System I, II, III, or IV																	
Class I	I, II, III, or IV																	
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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
KS	<ul style="list-style-type: none"> • Eligibility is based on an experience/education point system. • All operators must pass the written exam for each Class. <p><i>Small Systems:</i> 0.5 points, no experience.</p> <p><i>Class I:</i> 13.0 points, 1 yr.</p> <p><i>Class II:</i> 14.0 points, 1 yr.</p> <p><i>Class III:</i> 16.0 points, 2 yrs.</p> <p><i>Class IV:</i> 18.0 points, 2 yrs.</p> <p>Total Number of Active Operators: 2,092</p>	<ul style="list-style-type: none"> • Renewal required biennially. • <i>Small Systems:</i> Minimum 10 hrs of approved training every 4 yrs. • <i>Class I, II, III, IV:</i> ≥ 10 hrs of approved training every 2 yrs. <p>May renew up to 2 years after expiration (with CEUs and appropriate reinstatement fee).</p>	<p>If >2 years after expiration, must reapply, pass exam and pay fees.</p> <p>Operators who have their certificates revoked may become recertified but they are treated as new operators and must begin the certification process again.</p>	<p>Fees:</p> <ul style="list-style-type: none"> • OIT renewal: \$5 • Exam: \$25 • Renewal: \$20 • Reinstatement: \$35 (1 yr), \$45 (2 yrs) • Correspondence course: \$40 • Reciprocity: \$35 <p>Funding: All fees go into the general fund.</p> <p>Budget: \$60,000-\$70,000 (from Dept of Health and Environment, split evenly between water and wastewater)</p> <p>FTEs: .75</p>	<p>Secretary of Health and Environment can revoke a certificate after an operator has been given a hearing.</p> <p>Persons violating provisions of Article 45 or the rules and regulations adopted pursuant to this Act will be deemed guilty of a misdemeanor and upon conviction must pay a fine of not more than \$500.</p> <p>Compliance:</p> <ul style="list-style-type: none"> -Field inspection staff conducts review of records. -Surface water treatment facility records reviewed annually. -Others, depending on size from once every 2 years for larger facilities to once every 5 years for smaller facilities. <p>Agency: KS Dept of Health and Environment has jurisdiction in enforcement actions against operators and systems.</p>	<p>No. Occasional reviews are done informally.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Kentucky	Natural Resources and Environmental Protection Cabinet The Kentucky Board of Certification of Water Treatment and Water Distribution System Operators advises on all aspects of the program.	<p>All PWSs except semi-public (serving <3 families, or <15 service connections, or <25 people/ day) are required to have a certified operator. Semi-public are also encouraged, but not required.</p> <p>All certified ORCs shall hold a valid certificate in a class \geq that required for the system under supervision. A certified operator may be a person assigned responsibility for the operational procedures performed at the plant, or may be the person supervising others in the performance of operational procedures at the plant.</p> <p><i>Class 1, 2bd, 3b, and 4b</i> treatment plants shall have 1 supervising certified operator with certificate of competency in a class \geq that of the facility.</p> <p><i>Class 2a</i> facilities must have a certified operator $\geq 2a$ during the daytime shift, or whenever water is treated. Procedures performed outside of the daytime shift can be performed under the supervision of a 2a (not required to be on-site)</p> <p><i>Class 3a</i> plants must have a properly certified operator at all times.</p> <p><i>Class IVa</i> facilities must have a IVa on at least 1 shift. If more shifts are required to meet demand, a 3a operator may serve as ORC of subsequent shifts.</p> <p>Total Systems CWS: 501 NTNCWS: 106</p> <p>Total Covered Systems² CWS: 501 NTNCWS: 106</p>	Yes - Certificates may be issued in a comparable classification, without examination, to a person who holds a valid certificate in a State, territory, or possession of the United States, or a country if the applicant filed a complete application, a certificate was earned passing an examination in the reciprocal State, the requirements for certification under which the certificate was issued are \geq Kentucky; and the same reciprocal agreement is effective for operators of Kentucky.	KRS Chapter 223 and 224; Kentucky Department of Environmental Protection, 401 KAR 8:030	Yes - Advisory only Kentucky Board of Certification of Water Treatment Plant and Water Distribution System Operators as described in KRS 223.160-223.220. Board consists of two members who are currently employed at water treatment facilities, one municipal city manager, engineer, or director of public works, one member of the academia who teaches in a field related to water supply, and one ex officio member representing the cabinet. Duties include reviewing qualifications of applicants, assisting in the cabinet's preparation of examinations, providing comments on proposed regulations, commenting to the cabinet on training courses and educational requirements, advising the cabinet on enforcement issues, reviewing reciprocity regulations, and providing comments on proposed fees.	<p>Classifications of distribution systems are as follows (population based):</p> <p><i>Class 1:</i> <1,500 <i>Class 2:</i> 1,500 - 15,000 <i>Class 3:</i> 15,000 - 50,000 <i>Class 4:</i> $\geq 50,000$</p> <p>Classifications of treatment facilities are as follows:</p> <p><i>Class I:</i> < 50,000 gallons of water per day (g/day). <i>Class II:</i> 50,000 to 500,000 g/day. <i>Class III:</i> 500,000 to 3,000,000 g/day. <i>Class IV:</i> > 3,000,000 g/day.</p> <ul style="list-style-type: none"> All classes are subdivided to the type of treatment (primarily type of filtration) used at plants. <p>Subcategory B= physical treatment Subcategory A= full chemical treatment</p>

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2. The total number of covered systems refers to those systems that are currently required by State statute or regulation to have a certified operator. There are some discrepancies between the data we obtained from the States and the data in the Safe Drinking Water Information System (SDWIS). For national uniformity, we are using the SDWIS data in States where 100% coverage of CWS and NTNCWS applied.

State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
KY	<p>All water treatment and water distribution operators are divided into Classes I, II, III, IV with 12 subclasses.</p> <ul style="list-style-type: none"> • $\geq 70\%$ on class specific exam <p><i>Class I</i> (and subclasses): 1 yr experience + high school diploma or GED. <i>Class II</i> (and subclasses): 2 yrs experience + high school diploma or GED. <i>Class III</i> (and subclasses): 3 yrs of experience + high school diploma or GED. <i>Class IV</i> (and subclasses): a bachelor's degree from an accredited college and 1 yr experience.</p> <ul style="list-style-type: none"> • Experience can be substituted for education, and education may be substituted for experience (except for 1 year of base experience). <p>1 CEUS = 10 classroom hrs.</p> <p>Total Number of Active Operators: 2,793</p>	<ul style="list-style-type: none"> • Renewal period: biennially • continuing education requirements: <p><i>Class I</i> and <i>II</i>: 12 hours of training.</p> <p><i>Class III</i> and <i>IV</i>: 24 hours of training.</p> <p>*If an operator holds more than one license, he/she is only required to obtain the training hours for the higher license</p>	<p>A certificate terminates one year after the expiration date. If renewal does not occur, operator shall reapply, pay applicable fees, and pass an examination for the classification for which he is qualified to be certified.</p> <p>If disciplinary action has been taken against an operator's certificate, he/she may file a petition for a hearing to the Cabinet. Recertification of such certificates will be at the discretion of the Cabinet.</p>	<p>Fees*:</p> <ul style="list-style-type: none"> • Exam: \$30 • Renewal: \$20 • Late fee (renewal): \$55 (includes regular renewal fee and a \$35 late fee) • Recexam: \$30 • Training: \$10 • Reciprocity: \$35 <p>*The amount of these fees are set by the Cabinet each year.</p> <p>Funding:</p> <ul style="list-style-type: none"> • All fees shall be deposited in an agency fund to be used in carrying out these provisions <p>Budget: Data not provided.</p> <p>FTEs: 4.5 (includes training and certification)</p>	<p>A person, firm or organization (municipal or private) who violates any provisions of KRS 223.160 to 223.220 or the rules and regulations adopted thereunder shall be liable to a civil penalty not to exceed \$1,000.00 and an additional \$1,000.00 a day of operation thereafter.</p> <p>Violations may be discovered through written complaints to the Cabinet or unannounced inspections by the Cabinet, as it deems necessary to determine compliance of certified individuals with provisions of KRS 223.405 to 223.460.</p> <p>Agency: Natural Resources and Environmental Protection Cabinet has jurisdiction over actions taken against operators and systems. of Health on June 16, 1966 may, within discretion of the cabinet, be issued a new certificate without an exam.</p>	No formal review.

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Louisiana	LA Dept. of Health & Human Resources (State Health Officer) upon recommendation s from the Committee of Certification	<p>All PWSs (distribution and treatment) are required to have a certified operator.</p> <p>Operator definition - individual on-site of PWS and whose performance, judgment and direction affects the safety, sanitary quality or quantity of water.</p> <p>Operators of systems serving less than 500 persons (except systems utilizing either surface water or groundwater under the direct influence of surface water as their source of water, with at least 15 connections and regularly serving a minimum of 25 persons) shall be exempt from the certified operator requirement.</p> <p>Total Systems CWS: 1,289 NTNCWS: 244</p> <p>Total Covered Systems² CWS: 1,289 NTNCWS: 244</p>	Yes - with any State, territory or possession of the United States, having criteria for operator certification \geq Louisiana	State of Louisiana Act 538 of 1972 and R.S. 40:1141 to 1151 and Title 48, Part 5, Subpart 21	<p>Yes - State Health Officer appoints 9 member Committee of Certification to advise and assist in the administration of the certification program. Members shall include: operators of water works, sewage works, or municipal sewage treatment plants eligible for certificates of the highest class, + 2 out of 8 reps recommended by the LA Municipal Association, + 1 rep of the Dept. of Health</p>	<p>Classification of facilities are determined by population served:</p> <p><i>Class I:</i> 500-1,000 people. <i>Class II:</i> 1,001-5,000 people. <i>Class III:</i> 5,001-25,000 people. <i>Class IV:</i> > 25,000 people.</p>

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2. The total number of covered systems refers to those systems that are currently required by State statute or regulation to have a certified operator. There are some discrepancies between the data we obtained from the States and the data in the Safe Drinking Water Information System (SDWIS). For national uniformity, we are using the SDWIS data in States where 100% coverage of CWS and NTNCWS applied.

State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
LA	<ul style="list-style-type: none"> All operators must achieve a $\geq 70\%$ on the class specific examination. <p><i>Class I:</i> 12 yrs of education and 1 yr of experience. <i>Class II:</i> 12 yrs of education and 2 yrs of experience. <i>Class III:</i> 14 yrs of education and 3 yrs of experience. <i>Class IV:</i> 16 yrs of education and 4 yrs of experience.</p> <p>Total Number of Active Operators: 840</p>	<ul style="list-style-type: none"> Renewal period: biennially (contingent upon receiving 16 hours of continuing education) <p>Certificates that have lapsed may be renewed provided that all fees and penalties for the intervening years are paid, in addition to the fees due for renewal.</p> <p>The certificates of operators who willfully terminate their employment shall remain valid for 2 yrs. After that time, these certificates may be renewed by providing proof of competency to the Committee. At the discretion of the Committee, reexamination may be required.</p>	<p>Any certificate that is not renewed after 2 years of expiration is void and reexamination may be required at the discretion of the committee.</p> <p>Only a State Health Officer can revoke an operator's certification. If the State Health Department wishes to have a certification revoked, the Department must give that request to the State Health Officer. Revocation follows State administrative procedures code.</p>	<p>Fees: Collected by the Committee for issuance, renewal, and/or reciprocity of certificates.</p> <p>Flat fee for initial class of certification issuance, renewal and/or reciprocity: \$10.00</p> <p>For additional classes of certification issuance, renewal, and/or reciprocity: \$5.00</p> <p>Examination Fee: \$5.00</p> <p>Funding: Revenues and Budget go into and come from general fund, respectively.</p> <p>Budget: \$116,000 /yr</p> <p>FTEs: 2.0</p> <p>Note: Water and Wastewater programs are combined.</p>	<p>Whoever violates any provision of this Act shall be found guilty of a misdemeanor and upon conviction, shall be punished a fine of \$100.00 or imprisoned not more than 10 days. Additional fines and imprisonment for each day of operation in violation.</p> <p>Violations may be discovered by Health inspectors who make regular inspections of drinking water facilities.</p> <p>Agency: LA Dept. of Health and Human Resources has jurisdiction on enforcement issues.</p>	<p>Yes. Four times a year, public meetings with the Committee of Certification are held to review policies and procedures.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Maine	ME Dept. of Human Services and the State of Maine Board of Certification of Water Treatment Plant Operators	<p>Any system supplying drinking water to the public (water districts, water departments, and investor-owned water companies), are covered under the scope of the law. Certified operator requirement is one operator with certificate equivalent to the class of the system. No shift operators are required. The Department may establish classes of PWSs that are exempt.</p> <p>Operators of water treatment plants or distribution systems must hold a certificate of the same class as the water system they operate.</p> <p><i>Grandfather Clause:</i> Certificates issued without an examination prior to 1971 shall be exempt from this requirement. Recertification requirements will apply to these operators only if the classification level is upgraded.</p> <p>Total Systems CWS: 418 NTNCWS: 372</p> <p>Total Covered Systems² CWS: 169 NTNCWS: 0</p>	Yes - with any State, territory or possession of the United States, having criteria for operator certification \geq Maine.	90:429: chapter 1. Board of Certification of Water Treatment Operators, Rules relating to the Certification of Operators of Water Treatment Plants and Distribution Systems.	<p>Yes - State of Maine Board of Certification of Water Treatment Plant Operators</p> <p>A 7-member board</p> <p>* New board approved by legislature and appointed by the governor June 1996.</p>	<p><i>Class I:</i> distribution systems and treatment plants (requiring chemical control of operation not included in Class II, III, or IV) serving <15,000</p> <p><i>Class II:</i> distribution systems serving between 15,000 and 50,000; treatment plants requiring: a) chemical control of operation designed to serve >15,000 b) chlorination requiring bacteriological control designed to serve <15,000 c) filtration, sedimentation, and/or other complex treatment designed to serve <2,000</p> <p><i>Class III:</i> distribution systems serving <50,000 (except those connected with Class IV treatment plants); treatment plants requiring: a) chlorination requiring bacteriological control designed to serve >15,000 b) complex treatment designed to serve between 2,000 and 15,000</p> <p><i>Class IV:</i> all treatment plants using complex treatment designed to serve >15,000 and any distribution systems connected to them.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
ME	<ul style="list-style-type: none"> • Successful completion of Class specific written examination. <p><i>Class I:</i> High school education or GED with 1 year experience at Class I plant.</p> <p><i>Class II:</i> Must meet requirements for Class I operator and pass Class II exam.</p> <p><i>Class III:</i> High school education or GED, must have passed Class I, II and III exams and 2 years experience at Class I or higher plant. 2 years of additional education may be substituted for 1 year of experience.</p> <p><i>Class IV:</i> High school education or GED, successful passage of Class I, II, III, IV exams and 4 years experience in Class I or higher plant. 4 years of additional education may be substituted for 2 years experience.</p> <p>Total Number of Active Operators 682 (Class III and IV operators may hold more than one certificate-two at most)</p>	<ul style="list-style-type: none"> • Renewal period: biennially <p>Certificates of operators who terminate their employment will remain renewable for 3 years.</p>	<p>Upon a change in classification, operators must apply for examination at the higher class.</p> <p>After 3 yrs., operators who terminated their employment and did not renew their certificates are subject to reexamination and a reinstatement fee.</p> <p>Recertification of operators with revoked certificates will be done at the discretion of the Board, following a hearing. A hearing shall take place \leq 30 days after notice of revocation.</p>	<p>Fees:</p> <ul style="list-style-type: none"> • Certification (with or without exam): \$25.00 • Reexamination: \$25.00 • Reinstatement: \$8.00 • Reinstatement of certificate: \$8.00 • Annual renewal: \$8.00 <p>- Fees pay for ABC exam</p> <p>Funding: self-supporting program</p> <p>Budget: \$5,600 (approx.)</p> <p>FTEs: - Currently "borrowing people" to run program; no full time personnel.</p>	<p>Any person violating any provision of these rules shall be fined no more than \$500.00 a day for each day found in violation. In addition, the Commissioner may commence a civil action to convict and punish the violator, to seek injunctive relief to prevent violation of these rules.</p> <p>All enforcement is done through the drinking water program.</p> <p>Violations are discovered a variety of ways. For example:</p> <ul style="list-style-type: none"> • while reviewing reports, • sanitary surveys, • periodic inspections, • failure to provide public notice <p>Agency: ME Dept. of Human Services handles enforcement actions against operators and systems.</p>	No formal review.

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State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Maryland	Department of the Environment	<p>All operators and superintendents must be certified.</p> <p>Operator defined individually by system classification</p> <p>Systems with no treatment are exempt from certified operator requirement.</p> <p>NTNCWS: compliance is voluntary unless system has had violation in past - currently most non-transients do not have a certified operator.</p> <p>Total Systems CWS: 513 NTNCWS: 502</p> <p>Total Covered Systems² CWS: 513 NTNCWS: 0</p>	<p>Yes - If the requirements of the other State are >MD, reciprocity will be granted on a case-by-case basis.</p> <p>Operator must do the following: -submit application with fee -possess valid certificate from State other with has comparable examinations -be employed or awaiting specific employment in MD -satisfy education and experience requirements for the State of MD -pay, upon approval, certification fee</p>	<p>Maryland Environmental Article §§12-101 to 12-602, Annotated Code, and Title 26, Subtitle 06, Waterworks and Waste Systems Operators.</p>	<p>Yes - Maryland Department of the Environment, State Board of Waterworks and Waste System Operators</p> <p>State Board: reviews applications, interviews applicants; prepares, administers and determines time and place of examinations.</p>	<p>Classification of plants based on type of treatment process used.</p> <p><i>Class 1:</i> Disinfection. <i>Class 2:</i> Chemical Treatment. <i>Class 3:</i> Simple Iron Removal. <i>Class 4:</i> Complete Treatment. <i>Class 5:</i> Site Specific (alternative technological plants not covered by classification system)</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
MD	<p>Class of operator based on class of facility.</p> <ul style="list-style-type: none"> All operators must achieve a $\geq 70\%$ on the class specific examination. <p><i>Class 1 and 2:</i> High school (or GED) + 500 hrs or 1 yr experience*. <i>Class 3:</i> High school (or GED) + 1800 hours or 2 years experience*. <i>Class 4:</i> High school (or GED) + 5400 hours experience or 3 years*. <i>Class 5:</i> High school education (or GED) + experience determined by the Board*.</p> <p>*In those cases where a choice (hrs or year(s)) is given for experience, the longer time would apply.</p> <p>Total Number of Active Operators 840</p>	<ul style="list-style-type: none"> Renewal period: triennially <p>Minimum Continuing Education Units are as follows:</p> <p><i>Class 1 and 2:</i> 16 units <i>Class 3 and 4:</i> 30 units <i>Class 5:</i> To be determined by Board.</p> <ul style="list-style-type: none"> Academic training (involving an exam): 1 hr = 1.5 units, all other training: 1 hr = 1 unit 	<p>If operator does not submit renewal or late renewal, s/he must apply for reinstatement.</p> <p>>3 years past expiration, must reapply.</p> <p>If a certificate is revoked, it is generally under some type of agreement - generally 1 year, however, case-by-case determinations are made.</p>	<p>Fees:</p> <ul style="list-style-type: none"> Exam, Reciprocity, & Issue Certificate: \$75 Late Renewal & Reinstatement: \$150.00 Replacement Certificate: \$25.00 Replace Renewal card: \$15.00 <p>Funding: All fees go to the State general fund.</p> <p>Budget: FY'98= \$160,000</p> <p>FTEs: 1.25 (approx.)</p>	<p>The Board may revoke, suspend, or refuse certification after the operator is given a hearing.</p> <p>§12-504. Facilities that violate any provision of this title or any rule or regulation adopted under this title is guilty of a misdemeanor and on conviction is subject to a fine not to exceed \$25 for each day of violation.</p> <p>Agency: Board of Waterworks and Waste Systems Operators has jurisdiction in enforcement actions against operators. Public Drinking Water Program has jurisdiction in enforcement actions against systems.</p>	No formal review.

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Massachusetts	<p>Department of Environmental Protection</p> <p>The Division of Registration issues the physical certificates</p>	<p>Grade 3 and 4 systems must have a certified operator on site during <u>each</u> shift.</p> <p>Grade 1 or 2 systems may operate without a certified operator with Board approval.</p> <p>Coverage for treatment systems based on complexity of system (more complex, require more certified op.'s)</p> <p>For Distribution systems, primary and secondary operators must be certified. All individuals on call (e.g., weekend shifts) must be certified.</p> <p>Exceptions:</p> <ul style="list-style-type: none"> 1-part-time operator for Grade 1 systems or less. 2-automated operations for treatment facilities. 3-non-community systems 4-satellite or seasonal facilities (remote operations). <p>Operators defined individually by system classification.</p> <p>Total Systems CWS: 525 NTNCWS: 229</p> <p>Total Covered Systems² CWS: 525 NTNCWS: 229</p>	Yes - Reciprocity with any State with standards that meet the requirements of MA.	Massachusetts General Law (MGL) Chapters 13 and 112 and Commonwealth of Massachusetts Regulations 236 CMR 2.00-5.00	<p>Yes - Consists of 7 members from: Dept of Environmental Protection (chairperson), Dept of Public Health, Water Resource Commission, Registered PE, Labor Organization, NEWWA, and MWWA.</p> <p>The Board prepares, determines place and time of, and grades the exams.</p>	<p>Facilities are classified by the DEP as treatment (T) and distribution systems (D) and Water Vending Machines with treatment (VNT/D). All non-community systems are classified as VSS.</p> <p>Distribution systems are based on population served:</p> <p>VSS: 500 and less Class I: 501-1,500 Class II: 1,501-15,000 Class III: 15,001-50,000 Class IV: 50,001 and greater</p> <p>Treatment Systems are classified according to a point system</p> <p>VSS, Class I, II, III, IV.</p> <p>Water Vending Machines (VNT/D): Class I: < 2000 g/day Class II: 2001-5000 g Class III: 5001-50000g Class IV: >50001 g</p> <p>See Appendix A-6 for a complete description of the point system.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
MA	<ul style="list-style-type: none"> • Successful completion of Class specific written examination. • All experience may be substituted for education. <p>Water Vending Machines : <i>Class I-IV</i>: 3 months experience or a certificate of proficiency from machine organization such as National Automatic Merchandising Association (NAMA)</p> <p>Minimum requirements: <i>VSS</i>: 6 months and appropriate education and/or experience on a very small system. <i>Grade 1 (D/T)</i>: minimum 8 years education and 6 years experience. <i>Grade 2 (D/T)</i>: Possession of Class 1 operator certificate and minimum 1 year experience after certification. <i>Grade 3 (D/T)</i>: Possession of Grade 2C or D operator certificate and Class II or higher experience and 2 additional years experience after certification.. <i>Grade 4 (D/T)</i>: Possession of Grade 3C or D operator certificate and Class III or higher experience and 2 additional years experience after certification.. Total Number of Active Operators: 3,016</p>	<ul style="list-style-type: none"> • Renewal period: biennially <p>≥ 5 training contact hours (TCH) for VSS & VND operators. ≥ 10 TCH for Grade I & II operators ≥ 15 TCH for Grade III operators. ≥ 20 TCH for Grade IV operators.</p> <p>For renewal, operator must complete TCH requirements and pay a fee.</p> <p>After a certificate expires the operator must also pay a late renewal fee.</p> <p>S/he may renew without examination for period of time after expiration (duration is at the discretion of the Board).</p>	<p>The Board has discretion whether to require reexamination after certificate has expired.</p> <p>Recertification of revoked certificates would be on a case by case basis.</p>	<p>Fees:</p> <ul style="list-style-type: none"> • Application: \$10.00 • Certification: \$15.00 • Examination: \$62.00 • Renewal: \$15.00 • Late Renewal Fee: \$25 • Board Budget ≈ \$500 <p>Funding: Fees go to the general fund (except exam fee-exams are contracted out and exam fees go to the testing service)</p> <p>Budget: Data not available.</p> <p>FTEs: — Division of Registration handles all certificates, including operator certificates, in the State. It is, therefore, difficult to assess FTEs for the Operator Certification program.</p>	<p>.-Systems may be fined up to \$90/day. .-Operators may be fined up to \$25/day.</p> <p>Violations are discovered either through the sanitary survey or through a complaint filed against an operator or system (complaint forms are sent to the Board).</p> <p>Agency: Board of Certification of Operators of Drinking Water Supply has jurisdiction in enforcement actions against operators. MA Dept of Environmental Protection has jurisdiction in enforcement actions against systems.</p>	<p>No. Any assessment that is done is conducted through ABC.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Michigan	Department of Environmental Quality	<p>All systems must have at least 1 operator-in-charge certified to the level of the facility. (It is up to the utility if more than one certified operator is required to be present.) However, the following exemptions apply:</p> <ul style="list-style-type: none"> -type I PWSs*, if treatment used is only for the control of hardness, iron, or other primarily aesthetic concerns -limited distribution treated water -limited distribution system (e.g., apartment building, condominium) <p>*type I = community water supplies type II = non community water supplies — NTNCWS fall under this category.</p> <p>Total Systems CWS: 1,467 NTNCWS: 1,674</p> <p>Total Covered Systems² CWS: 1,467 NTNCWS: 1,674</p>	Yes - For operator certificates in a comparable classification and from States with comparable requirements for certification. However, due to staff limitations, the current policy does not allow for this.	Administrative Rules for Water Treatment & Distribution System Operators Act 399, P.A. 1976 Part 19	<p>Yes - Advisory Board of Examiners</p> <ul style="list-style-type: none"> -determines time and place of exams. -reviews exams written by the Division. -recommends the Department issue or deny certificates. - approves training or continuing education programs 	<p><i>Distribution</i> (based on population)</p> <p>S1: >20,000 S2: 4,000 - 20,000 S3: 1,000 - 4,000 S4: < 1,000</p> <p><i>Treatment</i></p> <p>Limited - Systems treated by disinfection, fluoridation, iron removal, and zeolite softening (based on pop. and treatment capacity).</p> <p>D1: >20,000 served OR > 5.0 mgd treated D2: 4,000 - 20,000 served OR 2.0 - 5.0 mgd treated D3: 1,000 - 4,000 served OR 0.5 - 2.0 mgd treated D4: <1,000 served OR < 0.5 mgd treated</p> <p>Complete treatment (based on pop. and treatment capacity)</p> <p>F1: >20,000 served OR > 5.0 mgd treated F2: 4,000 - 20,000 served OR 2.0 - 5.0 mgd treated F3: 1,000 - 4,000 served OR 0.5 - 2.0 mgd treated F4: <1,000 served OR < 0.5 mgd treated</p> <p>There is also a special limited classification (D-SL) which is where treatment is employed for health related purposes.</p>

1. This column contains information on the certification board or equivalent agency in the State operator certification program.

2. The total number of covered systems refers to those systems that are currently required by State statute or regulation to have a certified operator. There are some discrepancies between the data we obtained from the States and the data in the Safe Drinking Water Information System (SDWIS). For national uniformity, we are using the SDWIS data in States where 100% coverage of CWS and NTNCWS applied.

State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
MI	<p>All operators must pass the written exam</p> <p>Based on an educational point system, F2-F4 is the lower classification. F-1 must be a high school graduate with at least 80 points. Level 4 is the entry level for all Classes (F, D, & S). Education points may be substituted for experience.</p> <p>See Appendix A-7 for a complete description of the classification system.</p> <p>Total Number of Active Operators: 2,771</p>	<ul style="list-style-type: none"> • Renewal period: triennially (except D-SL operators) <p>CECs or approved training are required for renewal. Must obtain a minimum of 24 hours or 2.4 CECs.</p> <p>For F-4, D-4, S-4 (systems for populations $\leq 1,000$), must obtain a minimum of 12 hours or 1.2 CECs.</p> <p>1 CEC = 10 contact hours</p> <p>* Operators holding multiple certificates within the same class must only renew the certificate of the higher class</p> <p>May recertify (reinstate) without reexamination if apply within 1 year after expiration and present sufficient proof of competency.</p>	<p>The failure of an applicant to renew his/her certificate shall constitute grounds for refusing to renew a certificate on an active basis. Such individuals may chose to rewrite an exam for which they are eligible to recertify.</p> <p>An operator whose certificate has been revoked shall not be eligible for an examination during the period of suspension or for 5 years from the effective date or revocation. Recertification will be granted upon recommendation of the advisory board, at the discretion of the director.</p>	<p>Fees:</p> <ul style="list-style-type: none"> • No fees charged to operators. <p>Funding:</p> <p>Funding for operator certification program comes from federal grant (PWSS) and the mandatory water utility fee (based on population served)</p> <p>Budget:</p> <p>\$220, 000 (comes from the State general fund, Federal funds, and, indirectly, from fee monies)</p> <p>FTEs: 3 + (additional assistance from technical staff in writing and grading exams, and providing training)</p>	<p>Director handles enforcement procedures against an operator. These may include probation, suspension or revocation of certificate after notice and a hearing before the Advisory Board of Examiners.</p> <p>Enforcement of the requirements of a system are handled by the District Engineers. Through maintaining close contact with the systems, the engineers generally know when a system is out of compliance. Other indicators include routing field visits and treatment reports.</p> <p>Agency: Department of Environmental Quality has jurisdiction over actions against operators and systems.</p>	No formal review.

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Minnesota	Minnesota Department of Health	<p>Certification is not required for all PWS operators: 1) if have ≥ 1 person certified at a level \geq class of facility and 2) have ≥ 1 person with full responsibility for daily operations of facility (can be divided among appropriately certified operators).</p> <p>Operator definition - person who has direct responsibility for operation of CWS or operates a CWS in ways that would affect the quality and safety of the water.</p> <p>Operators can be in responsible charge of more than one facility for each class as long as the operator spends a certain amount of time of week at the facility. Time is determined by Commissioner.</p> <p>Total Systems CWS: 961 NTNCWS: 700</p> <p>Total Covered Systems² Data not available.</p>	Yes- with all States. Reciprocity may occur only when States's operator certification requirements are substantially equivalent.	Minnesota Operator Certification Statutes: Sections 115.71-115.77 and Operator Certification Rules 9400.	<p>Yes - Water & Wastewater Treatment Operators Advisory Council consisting of 11 members. The Council consists of: 1-Dept. of Health, Division of Environmental Health 1- PCA Water Quality Division 3- certified operators of water supply systems 3-certified wastewater treatment operators 1-representative from organization representing municipalities 2-members of the public, not associated with water treatment or supply facilities</p> <p>Commissioner of Health issues certificates for water supply systems operators and maintains records. Council serves as an advisor to the Commissioners only.</p>	<p>Commissioner of Health and classifies systems/facilities.</p> <p>See Appendix A-8 for a complete description of the classification for all PWS.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
MN	<p>Operators must pass written 50 question examination with $\geq 70\%$. At least one year experience is needed in order to take exam.</p> <p>Four classes (listed from lowest to highest): Class D: 1 year experience Class C: 3 years experience Class B: 6 years experience Class A: 8 years experience</p> <p>H.S. diploma or GED required for all operators. Experience can be substituted with college education.</p> <p>Operator can never have less than 1 year of experience to take class specific examination.</p> <p>Need $\geq 70\%$ on class specific examinations.</p> <p>Total Number of Active Operators: Approx. 3,070</p>	<ul style="list-style-type: none"> • Renewal period: triennially <p>Each class of operator is required to fulfill continuing education as follows:</p> <p>Class D: 8 contact hrs Class C: 16 contact hrs Class B: 24 contact hrs Class A: 32 contact hrs</p> <p>Operators may renew lapsed permit up to three years after expiration if they fulfill continuing education requirements for the specific class.</p>	<p>After 3 years from the expiration date, an operator must reapply and take the appropriate examination.</p> <p>An operator who has a certificate revoked may reapply and re-take the exam one year after revocation.</p>	<p>Fees:</p> <ul style="list-style-type: none"> • Application for exam: \$32 • Re-examination (in case of failure): \$32 • Issuance of certificate: \$23 • Renewal: \$23 • Replacement certificate: \$10 • Reinstatement or reciprocity certificate: \$40 <p>Funding: Fees go to special revenue fund in State Treasury. Funding is subsidized by State's general fund.</p> <p>Budget: \$26,000 /yr</p> <p>FTES: 1.0</p>	<p>Violations are discovered by anonymous tips from concerned citizens.</p> <p>Agency: Commissioner of Health has jurisdiction on enforcement actions against operators and systems.</p>	<p>Yes. Four times a year, meeting of the Advisory Council which advises Dept. of Health on the Operator Certification program.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Mississippi	MS State Dept of Health, Division of Water Supply	<p>All PWS must have one certified operator in direct responsible charge. One operator may be in direct responsible charge for more than one system.</p> <p>Operator definition - individual who directly supervises and is personally responsible for the daily operations and maintenance of a CWS.</p> <p>As of July 1997, all NTNCWS will be required to have a certified operator.</p> <p>Total Systems CWS: 1,262 NTNCWS: 130</p> <p>Total Covered Systems² CWS: 1,262 NTNCWS: 130</p>	Yes - Reciprocal agreement with all States that are members of ABC.	Municipal and Domestic Water and Wastewater System Operator's Certification Act of 1986 and MS State Board of Health Environment Regulations Part 302.1 - 302.11	No	<p>Classifications based on treatment</p> <p><i>Class D:</i> Systems with no treatment other than chlorination and fluoridation. Also includes those systems that purchase water and are responsible for distribution of the water only.</p> <p><i>Class C:</i> Systems with aeration, pH adjustment, corrosion control or closed pressure type treatment facilities including zeolite softening or iron removal.</p> <p><i>Class B:</i> Systems with two or more Class C treatment facilities or different types or with iron or manganese removal facilities breaking pressure or requiring flocculation and/or sedimentation.</p> <p><i>Class A:</i> Systems with surface water treatment, lime softening, or coagulation and filtration for the removal of constituents other than iron or manganese.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
MS	<p><i>Class D:</i> 1 yr experience while working under certified operator <i>Class C:</i> high school + 1 yr experience under certified operator in Class A, B, or C plant or if no HS, 3 yrs. exp with one yr under certified operator <i>Class B:</i> high school + 3 yrs experience with 1 yr under certified operator in Class A, B, or C plant or without HS, 6 yrs exp with 1 yr under certified operator <i>Class A:</i> high school + 6 yrs experience with 1 yr under certified operator in Class A or B plant or a BS in engineering with 1 yr experience under Class A certified operator or if no HS 6 yrs experience with at least 1 yr under certified operator.</p> <p>All operators must get $\geq 70\%$ on examination for Classes A,B,C.</p> <p>Total Number of Active Operators: Data not provided.</p>	<ul style="list-style-type: none"> Renewal period: triennially <p>48 training contact hours/renewal period that are approved by Board.</p> <p>Operators may renew permit 60 days after expiration</p>	<p>After 60 days certification expires, operators must take and pass appropriate exam and apply for new certificate.</p> <p>Information on revocation is not available.</p>	<p>Fees:</p> <ul style="list-style-type: none"> Examination: \$20.00 Certification: \$50.00 Application for renewal: \$30.00 <p>Funding: Appropriations come from Water Division's budget. Water Division's budget allocated from State general fund. Fees go into Water division's certification direct credit fund. State also receives funding from US EPA.</p> <p>Budget: \$120,000 /yr</p> <p>FTEs: 3.0 (certification, enforcement and training)</p>	<p>Systems and operators found in violation may</p> <ul style="list-style-type: none"> receive a notice of violation, receive an administrative order, be assessed civil penalties $\geq \\$100$ and $\leq \\$1,000/\text{day}$ of violation, be required to provide injunctive relief if public health is threatened in any way. <p>Information on how violations are discovered is not available.</p> <p>Agency: The Mississippi State Board of Health has jurisdiction on enforcement actions against operators and systems.</p>	Information not provided.

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State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Missouri	MO Department of Natural Resources	<p>According to 10 CSR 60-14.010 the chief operator of each PWS facility must be duly certified by the department except during periods of emergency, disaster or work stoppage.</p> <p>Untreated PWSs serving fewer than 50 service connections and fewer than 200 people shall be exempt from the operator certification requirements provided that they have demonstrated a history of safe drinking water.</p> <p>Total Systems CWS: 1,413 NTNCWS: 230</p> <p>Total Covered Systems² CWS: 1,079 NTNCWS: 0</p>	<p>Yes - with any State, territory or possession of the United States or any country or any other certifying authority, having criteria for operator certification \geq Missouri. Additionally, the operator must have working experience with a public water system (PWS) in the country, State, territory, etc. that issued the certificate for which reciprocity is requested, and currently be working with a PWS in the State of Missouri.</p> <p>Any operator whose certificate has been revoked is not eligible for certification by reciprocity.</p>	Title 10; Division 60; Chapter 14 of the Department of Natural Resources Code (10 CSR 60-14.010-.030)	No	The Dept. classifies PWSs by: volumetric capacity, source, character of water being produced, and complexity of treatment. Classes are based on a point system and categorized: A-E, with Class A being the highest. See Appendix A-9 for a complete description of the point system.

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
MO	<p>There are 5 classes of systems (A-E). To be eligible to operate, one must have accumulated actual or equivalent operational experience and training.</p> <p>Min. Requirement:</p> <p>E: no education or exp. needed.</p> <p>D: 1 yr of actual water experience or some form of education.</p> <p>C: 2 yrs or 1 yr. equivalent education.</p> <p>B: 4 yrs or 1 yr. equivalent education.</p> <p>A: 6 yrs or 2 yrs equivalent education.</p> <p>Equivalency is based on education level: high school grad=1/2 yr; graduate of a certified program=1 yr; AA= 1 1/2 yrs; BA or BS=2 yrs.</p> <p>An exam must be taken by those that do not have the necessary water system experience. (>70% is passing)</p> <p>Total Number of Active Operators: 2,520</p>	<ul style="list-style-type: none"> • Renewal period: triennial <p>Must have ≥ 30 hrs of approved training at certificate level.</p> <p>1 CEUs = 10 hours</p>	<p>Any certificate not renewed within the 2 months following the expiration date will be considered lapsed. Any operator with a lapsed certificate will be required to take an examination.</p> <p>Any person wishing to become recertified after revocation of a certificate may do so after 1 year or at the time determined by the Department.</p>	<p>Fees:</p> <ul style="list-style-type: none"> • Initial Cert. \$25; • Exam \$20; • Reciprocity cert. \$25-\$40; • Renewal \$45; • Late fee \$10-\$20. <p>Funding: No data available without notification from NDWAC working group.</p> <p>Budget: Data not available.</p> <p>FTEs: 1.5</p>	<p>"As of [1/1/87], no person, firm, corporation, municipal corp. or other governmental subdivision or agency shall operate a public water system unless the competency of the chief operator to operate the facility is duly certified by the department..." ...Any person, firm,... who violates any provisions of this rule will be subject to the penalty provisions of section 640.130, RSMo. (Penalties not stated)</p> <p>Agency: Missouri Department of Natural Resources has jurisdiction on enforcement actions against operators and systems and inspection of facilities</p>	No formal review.

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State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Montana	MT Department of Environmental Quality	<p>Every PWS must have an individual in responsible charge who is certified at that system's class or higher at all times. The individual must be on site or on call and able to respond in a timely manner.</p> <ul style="list-style-type: none"> Operators of plants or systems serving less than 15 families or 25 people are exempt from the certified operator requirements. <p>Total Systems CWS: 645 NTNCWS: 218</p> <p>Total Covered Systems² CWS: 631 NTNCWS: 203</p>	Yes - with any State having criteria for operator certification \geq Montana. Additionally, the operator must be currently working with a system in the State of Montana that requires a certified operator.	MT Codes Annotated: Title 37, Chapter 42-101 to 321 and Admin. Rules of MT: Title 16, Chapter 18	<p>Yes - Advisory only</p> <p>7 members comprised of: (2) certified water supply system or treatment plant operators, at least one of which shall be certified at the highest class; (2) certified wastewater treatment plant operators, at least one of which shall be certified at the highest class; (1) representative of academia; (1) representative of a municipality holding the position of city manager, city engineer, director of public works, works manager, or the equivalent; and a member of the staff of the MT DEQ appointed by the director.</p>	<p><i>Water Distribution (in terms of pop served):</i></p> <ul style="list-style-type: none"> Class 5: < 100 Class 4: 100-500 Class 3: 500-2500 Class 2: 2500-20k Class 1: > 20,000 <p><i>Water Treatment Systems (according to pop. served and type of treatment)</i></p> <ul style="list-style-type: none"> Class 5: GW < 100 Class 4: GW serving 100-2500 Class 3: Ground water serving > 2500 people Class 2: Surface water treatment not using chem. coagulation. Class 1: Chem. coagulation, filtration, and disinfection.

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
MT	<ul style="list-style-type: none"> >70% on exam required at each level <p><i>Education:</i></p> <ul style="list-style-type: none"> HS diploma or equivalent (for those certified after 6/91). Special exceptions available. <p><i>Experience (at system described for that class and type)</i></p> <ul style="list-style-type: none"> Class 5: 0 Class 4: 6 mos. Class 3: 1 yr. Class 2: 1½ yrs Class 1: 2 yrs <p>(post-secondary ed. may be substituted 2 to 1 up to ½ of the experience requirement)</p> <p><i>Exemptions:</i></p> <ul style="list-style-type: none"> If a system has been modified or reclassified at a higher level, and evidence can be provided to the dept. that the present operator is fully qualified to operate the higher class system, certification may be granted at the higher level without an exam. If an operator was in responsible charge of a system on July 1, 1967, certification will be granted under the grandfather clause. <p>Total Number of Active Operators: 1685</p>	<ul style="list-style-type: none"> Renewal period: annually - Operators must apply for renewal prior to July 1 <p>Continuing education credits must be obtained for every 2 yrs of certification:</p> <p>Class I: 2 CEUS Classes II-IV: 1 CEUS Class V: 4 contact hrs 1 CEUS = 10 contact hrs</p> <p>-Operators who terminate their employment may renew certificates annually for a period of 2 yrs beyond the expiration date of the current certificate. After 2 yrs the certificate is automatically invalidated, and proper proof of competency must be presented to the department. Reexamination may be required at the discretion of the department.</p>	<p>An operator who fails to apply for renewal and submit payment of fees prior to July 1 shall have his/her certificate suspended.</p> <p>If a certificate is suspended for more than 30 days, it shall be revoked, and reapplication and examination will be required.</p>	<p>Fees:</p> <ul style="list-style-type: none"> Application: \$30 Exam: \$20/exam Duplicate certificates: \$10 Renewal: \$30 <p>Funding:</p> <p>Fees are deposited in special funds to pay expenses of operator certification program.</p> <p>Budget:</p> <p>allocated \$67,000/year</p> <p>Also approximately \$45,000 from the SRF has been allocated.</p> <p>FTEs: 2.84 (may include water and wastewater).</p>	<p>MT DEQ may revoke or suspend an operator's certificate.</p> <p>Any person, firm or corporation, both municipal and private, violating any provisions of Chapter 42 is guilty of a misdemeanor. Each day of operation in violation constitutes a separate offense. The MT DEQ may also impose administrative penalties.</p> <p>Violations are discovered through both routine inspections and continuous monitoring to insure that each facility has the minimum number of qualified operators to meet state requirements.</p> <p>Agency: MT DEQ has jurisdiction in enforcement actions against operators and systems.</p>	<p>No. The department continually reviews their procedures and the certification exam.</p>

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State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Nebraska	Nebraska Department of Health and Human Services, Regulation and Licensure	<p>All facilities must have at least 1 operator who has been issued a Certificate of Competency for the system he/she works. An operator is the individual or individuals responsible for the continued performance or the water supply system or any part of such system during assigned duty hours. No backflow certified operators required.</p> <p>Two or more public water supply systems may share or utilize the services of a single certified operator. The conditions for shared operators are as follows: the operator shall hold that grade required for the operator of the highest classification of the systems involved; the systems are located so as to permit reasonable travel time between work areas; each system involved shall provide a local person or persons to perform routine activities, including collection of samples. Companies or corporations established for the purpose of providing operational service to owners of public water supply systems shall employ one or more persons holding a certificate at the highest classification of the system served.</p> <p>Total Systems CWS: 628 NTNC: 189</p> <p>Total Covered Systems² CWS: 628 NTNC: 184</p>	No	Nebraska Safe Drinking Water Act, Chapter 71, Article 53 and Title 179, Chapter 2 Nebraska Department of Health and Human Services, Regulation and Licensure; Regulations Governing Public Water Supply Systems, including amendments.	Yes - Advisory Council on Public water Supply consisting of 7 members: Governor appoints 1 engineer, 1 physician, 2 consumers, 2 operators of PWS (one for >5000 people served and one for <5000 people served), 1 owner of PWS or member of governing Board that oversees PWS.	<p>Classes I-V, based on population served and treatment involving filtration</p> <p><i>Class V:</i> NTCWS. <i>Class IV:</i> CWS and NTNCWS that don't use filtration treatment and serve <2000 people and CWS that serve <15,000 if purchasing from another facility. <i>Class III:</i> CWS and NTNCWS using filtration that serves <2000 and CWS that serves 2000-15,000 with no treatment and CWS that serve >15,000 if purchasing water. <i>Class II:</i> CWS and NTNCWS that use filtration that serves 2000-15,000 and CWS that don't treat and serve 15,000-50,000. <i>Class I:</i> CWS and NTNCWS that use filtration and serve >15,000 and all other CWS that serve >50,000 without treatment.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
NE	<p>6 grades of certification available. 5 for public water operators and 1 for backflow prevention devices.</p> <ul style="list-style-type: none"> • All experience can be substituted for varying degrees of educational experience. • Successful completion of Class specific examination. <ul style="list-style-type: none"> • <i>Grade VI</i>: Successful completion of exam recommended by Advisory Council. • <i>Grade V</i>: Pass water samples exam • <i>Grade IV</i>: Successful completion of exam following basic training course and 2 yrs. of HS + 1 yr. experience. • <i>Grade III</i>: Successful completion of exam recommended by Advisory Council, HS diploma + 2 yrs experience. • <i>Grade II</i>: Prior successful completion of Grade III exam, 2 yrs of college, and 3 yrs experience. • <i>Grade I</i>: Prior successful completion of Grade II exam, BS degree, +3 yrs experience. <p>Total Number of Active Operators: 1,867</p>	<ul style="list-style-type: none"> • Renewal period: triennially <p>15 Hours of Continuing Education every 3 years.</p> <p>Class 5 exempt.</p>	<p>If certification is not renewed operator must reapply and re-exam.</p> <p>Recertification of revoked licenses is not prohibited, however the situation has never arisen.</p>	<p>Fees:</p> <ul style="list-style-type: none"> • Application: \$10.00 • Correspondence Course: \$80.00 • Training Course: \$40.00 for each day. • Other Fees: \$50.00 for individual examination without taking training course. <p>Funding and Budget: Data not available.</p> <p>FTEs: <1</p>	<p>Section 010.01. Certified Operator Necessary. No public water supply system shall be issued or otherwise hold a permit to operate a public water supply system, granted by the Department, unless its operator possesses a certificate of competency issued by the Department.</p> <p>Any person (person defined as operator, company, etc) who shall violate any of the provisions of section 71-5301 to 71-5313 shall be found guilty of a Class IV misdemeanor and each day shall constitute a separate offense in cases of contained violation.</p> <p>Agency: Department of Health, Human Services Regulations and Licensure has jurisdiction on enforcement actions against operators and systems and inspection of facilities.</p>	No formal review

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities																
Nevada	Nevada Bureau of Health Protection Services - Division of Health	<p>PWSs must have operator in direct responsible charge.</p> <p>A person in responsible charge can be an operator who is supervisor or shift operator.</p> <p>The person in responsible charge does not need to be on site during all hours of operation.</p> <p>Operators-in-training may have responsible charge upon the request of the owner of the system and the approval from the division.</p> <p>Temporary exemption- Provisional certification issued to persons "in responsible charge" at specific PWSs that are not supplied by surface water or GWUDI.</p> <p>Total Systems CWS: 292 NTNCWS: 100</p> <p>Total Covered Systems² CWS: 148 NTNCWS: 2 (because they involve surface water)</p>	Yes - A certificate may be issued to an operator if s/he furnishes proof that s/he is an operator of a public system in another State and pays the applicable fee for issuance of the certificate set forth in NAC 445.3684.	Nevada Admin. Code: 445.365-445.3685 and 445A.870-445A.895	Yes - Advisory Board appointed by the State Board of Health pursuant to NRS 445.3832.	<p>Distribution classes based on pop served:</p> <table><tr><td>Class 1</td><td>25-500</td></tr><tr><td>Class 2</td><td>501-3,300</td></tr><tr><td>Class 3</td><td>3,301-10k</td></tr><tr><td>Class 4</td><td>>10k</td></tr></table> <p>Treatment classes based on a point system for pop served, source, and type of treatment employed:</p> <table><tr><td>Class 1</td><td>5-19 points</td></tr><tr><td>Class 2</td><td>20-35</td></tr><tr><td>Class 3</td><td>36-45</td></tr><tr><td>Class 4</td><td>46 or more</td></tr></table> <p>See Appendix A-10 for a complete description of the point system.</p>	Class 1	25-500	Class 2	501-3,300	Class 3	3,301-10k	Class 4	>10k	Class 1	5-19 points	Class 2	20-35	Class 3	36-45	Class 4	46 or more
Class 1	25-500																					
Class 2	501-3,300																					
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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹																
NV	<ul style="list-style-type: none">• 70% on written exam• Min. experience: <p><i>Distribution:</i></p> <table><tr><td>Class 1</td><td>6 mos.</td></tr><tr><td>Class 2</td><td>1 yr.</td></tr><tr><td>Class 3</td><td>2 yrs.</td></tr><tr><td>Class 4</td><td>3 yrs.</td></tr></table> <p><i>Treatment:</i></p> <table><tr><td>Class 1</td><td>6 mos.</td></tr><tr><td>Class 2</td><td>1 yr.</td></tr><tr><td>Class 3</td><td>2 yrs.</td></tr><tr><td>Class 4</td><td>3 yrs.</td></tr></table> <p>-- Up to half the experience required in each class can be substituted by counting every 2 days of college engineering education as 1 day of experience.</p> <p>-- Certification for out-of-State operators who have passed an exam and have the required experience, or who are certified by the CA/NV AWWA</p> <p>Total Number of Active Operators: not available - 605 Operator Certifications (operators may be certified in both distribution and treatment, thus the number of actual operators is less)</p>	Class 1	6 mos.	Class 2	1 yr.	Class 3	2 yrs.	Class 4	3 yrs.	Class 1	6 mos.	Class 2	1 yr.	Class 3	2 yrs.	Class 4	3 yrs.	<ul style="list-style-type: none">• Renewal period: biennially. <p>-Continuing education approved by Health Division:</p> <p>-- Class 1 & 2: 5 hours over 2 years</p> <p>-- Class 3 & 4: 10 hours over 2 years</p> <p>-These provisions can be waived for reasons of hardship or extenuating circumstances, at the discretion of the Health Division.</p> <p>-An expired full certificate may be reinstated within 6 months of its date of expiration by payment of the reinstatement fee.</p> <p>-If an operator terminates employment, he/she may renew the certificate for 2 yrs after the date of expiration (pay fees by 7/1 of following year).</p>	<p>> 6 months after expiration, a new application for a full certificate and appropriate fees must be filed as set forth in NAC 445.3684.</p> <p>Operators who have their certification revoked can appeal to the state board of health within 15 days after they receive the initial decision to revoke their certification.</p>	<p>Fees:</p> <p>Full cert. = \$40; For out-of-State = \$40; For CA/NV AWWA = \$25; Op-in-training = \$40; Converting operator-in-training to full cert. = \$25; Provisional cert. = \$25; Renew full cert. = \$25; Renew prov. = \$25; Renew op-in-training = \$25; reinstate and renew full cert = \$100</p> <p>Funding:</p> <p>All fees must be used to defray the cost of issuing certificates or paying other expenses (e.g., travel) incurred for op. certification.</p> <p>Income from fees:</p> <p>FY'96=\$11,500</p> <p>YTD'97=\$15,910</p> <p>Budget: Data not available.</p> <p>FTEs: 0.5</p>	<p>Fines of up to \$2,500/day for systems in violation.</p> <p>A PWS survey is conducted every year for surface water and every three years for groundwater.</p> <p>Agency: Information not available on Agency presiding over enforcement of systems. Bureau of Health Protection Services, Division of Health has jurisdiction in enforcement actions against operators.</p>	<p>No. There is no formal review process but there is an ongoing, informal self assessment.</p>
Class 1	6 mos.																					
Class 2	1 yr.																					
Class 3	2 yrs.																					
Class 4	3 yrs.																					
Class 1	6 mos.																					
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1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
New Hampshire	New Hampshire Department of Environmental Services - Water Division	<p>The regulations apply to community water systems and non-transient, non-community water systems. Transient systems are exempt from the certified operator requirements.</p> <p>Facilities to which the law applies must have an operator* equal to the class of the facility. An operator may operate a plant or system of lower grade than his/her certified level, and any operator may operate more than one facility (circuit rider).</p> <p>*An operator is defined as the individual who has full responsibility for the operation of a water treatment plant or distribution system and any individual who normally has charge of an operating shift, or who performs important operating functions including analytical control.</p> <p>Total Systems CWS: 670 NTNCWS: 413</p> <p>Total Covered Systems² CWS: 670 NTNCWS: 413</p>	Yes - Certificates may be issued in a comparable classification, without examination, to any person who holds a certificate issued by the appropriate certification agency of any federal, State, interstate, territorial or other level, if the requirements for certification under which such person's certificate was issued are \geq New Hampshire's. Each operator applying for a reciprocal certificate must submit a copy of the certification requirements for their original certificate to NH DES.	New Hampshire Department of Environmental Services, Env-Ws 367, Section 7 of 14 and Chapter 332, Section E	Yes - Advisory only Committee consisting of 5 members. The director (or his designee); 2 appointees from the governor representing large and small facilities that are members of the New Hampshire water works association, and 2 members shall be appointed by the governor from outside the water works industry and that represent consumers.	<p>Water distribution systems are classified (Grade IA-IV) according to population served</p> <p>Grade IA: <500 people or 150 service connections (without fire protection)</p> <p>Grade I: $\leq 1,500$</p> <p>Grade II: 1,501 - 15,000</p> <p>Grade III: 15,001 - 50,000</p> <p>Grade IV: >50,000</p> <p>Water treatment classification based on plant complexity point system. Points are assigned depending on population served, design flow, type of treatment, and water supply source.</p> <p>Grades IA, I, II, III, IV.</p> <p>See Appendix A-11 for a complete description of the point system.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
NH	<ul style="list-style-type: none"> All classes of operators must successfully complete class specific written examination (oral exam optional). <p>Additional requirements for each class:</p> <p>Class IA: none. Class I: 12 years of education and one year experience. Class II: 12 years of education and 3 years of experience. Class III: 14 years of education and 4 years of experience. Class IV: 16 years of education and 6 years of experience.</p> <p>An operator may become certified for a treatment facility and a distribution facility by completing the requirements for both classifications.</p> <p>Total Number of Active Operators: 973 active certificates (operators may hold more than one license)</p>	<ul style="list-style-type: none"> Renewal period: biennially <p>The following Contact Hours are required for treatment and distribution certificate renewal:</p> <p>Grade IA: 10 hrs Grade I, II, III, IV: 20 hrs</p> <p>*State-run, 12-day training program offered through which operators can may obtain some, or all, of their required contact hours.</p>	<p>Operators whose certificates have become inactive must reexam.</p> <p>Current policy enables operators with revoked certificates to recertify right away.</p>	<p>Fees:</p> <ul style="list-style-type: none"> Examination: \$50 Renewal: \$50 Reciprocal certificate: \$50 <p>Funding:</p> <p>All fees go to a dedicated fund for the administration of operator certification.</p> <p>Budget: Data not available.</p> <p>FTEs: 1.25</p>	<p>No water treatment plant or distribution system shall operate without a certified operator unless exempt. The owner shall pay \$500.00 per day for this and for any other violation of this chapter.</p> <p>Violations are discovered through:</p> <ol style="list-style-type: none"> sanitary surveys, and periodic review of the database (2-3 times/year - tied to exam schedule) <p>Agency: NH Dept. of Environmental Services has jurisdiction in enforcement actions against operators and systems.</p>	No formal review.

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State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
New Jersey	New Jersey Department of Environmental Protection - Examination and Licensing Unit, General Services	<p>The Department shall exempt PWS Class 3 and 4 automated facilities from having a full time operator if owner or permittee submits a written request. Unless exempt, all systems will have a full time operator, which is an operator who is in attendance at a system for at least 35 hours a week, for at least five days a week, and at least seven hours a day during an ordinary one week period.</p> <p>Operator definition - person who performs operational duties at a system which is acceptable to the board.</p> <p>Direct responsible charge - active daily, on-site supervision, and operation and maintenance responsibilities.</p> <p>The Department has the right to limit the amount of systems an operator is allowed operate and the number of hours each facility is required to have licensed operator.</p> <p>Total Systems CWS: 614 NTNCWS: 1,039</p> <p>Total Covered Systems² CWS: 614 NTNCWS: 1,039</p>	Yes - Reciprocal agreement with all States that are members of ABC.	NJ Administrative Code Title 7, Chapter 10A, Subchapter 1	<p>Yes - An Examining Board appointed by Commissioner comprised of personnel from the Department and actively engaged licensed operators with at least five years' experience with a current Class 4 license. State also has an Advisory Committee on Training appointed by the Commissioner. Committee is comprised of at least three representatives from the department, one certified operator, one from the education committee from the NJ Water Environment Association, one member each from a wastewater and water authority, two members from environmental groups, and two members from State educational institutions.</p>	<p>Distribution Systems: W1 - W4 (based on population served) W1: >101 - <1501 W2: 1501 - 15000 W3: 15001 - 50000 W4: >50000</p> <p>Treatment Systems: T1 - T4 (based on point system) T1: ≤30 pts T2: 31 - 55 pts T3: 56 - 75 pts T4: >76 pts</p> <p>See Appendix A-12 for a complete description of the point system.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
NJ	<p>Minimum admission requirements for the licensing exam (W and T): <i>Class 1:</i> High school (or equivalent) + 1 yr experience, OR Associates + 1 yr experience, OR Bachelors + 1 yr experience <i>Class 2:</i> High school (or equivalent) + 3 yrs experience, OR Associates + 2 yrs experience, OR Bachelors + 1.5 yrs experience <i>Class 3:</i> High school (or equivalent) + 3 yrs experience + 3 yrs direct responsible charge (DRC), OR Associates + 2 yrs experience + 2 yrs DRC, OR Bachelors + 1.5 yrs experience + 1.5 yrs DRC <i>Class 4:</i> High school (or equivalent) + 6 yrs experience + 4 yrs direct responsible charge (DRC), OR Associates + 4 yrs experience + 3 yrs DRC, OR Bachelors + 3 yrs experience + 2 yrs DRC</p> <p>Total Number of Active Operators: 2,285</p>	<ul style="list-style-type: none"> • Renewal period: annual (must occur prior to Sept. 30) <p>CEUs: State is having on-going discussions on this. There will be an amendment to the rules.</p> <p>Operator has 1 year to renew certification after expiration date with late fee.</p>	<p>If operator does not submit renewal fee one year after the September 30 expiration date, the licensee shall not receive a new license unless he/she meets the current requirements for the license and until he/she successfully passes another qualifying examination.</p> <p>Any person whose license has been revoked for the first time shall be ineligible for an examination for a new certificate for a period of one year from the effective revocation date.</p>	<p>Fees:</p> <ul style="list-style-type: none"> • Application: \$35.00 • Initial License: \$25.00 • Annual License: \$20.00 • Late Renewal: \$10.00 <p>Funding: Appropriation from State's general fund.</p> <p>Budget: Data not available.</p> <p>FTEs: 2.0</p> <p>Training courses are offered through community colleges and vocation technology schools.</p>	<p>Procedures may include: Civil administrative penalties up to \$5,000 for each offense or injunctive relief.</p> <p>Operators are required to perform and record regular inspections and submit these findings to the NJ Department of Environmental Protection.</p> <p>Agency: New Jersey Department of Environmental Protection has jurisdiction on enforcement actions against operators and systems.</p>	<p>Yes. Once every 2-3 months. Board of Water holds meetings open to public.</p>

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State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
New Mexico	NM Water Quality Control Commission - Licensing Board	<p>All public water systems serving >25 people, >60 days of the year, shall employ a certified operator. The certified operator or certified supervisor must hold a certificate greater than or equal to the level of the facility.</p> <p>Any operation or maintenance activity (with the exception of sampling and meter reading) that will impact or have the potential to impact water quality requires a certified operator on site when those activities are performed.</p> <p>Total Systems CWS: 636 NTNCWS: 153</p> <p>Total Covered Systems² CWS: 636 NTNCWS: 153</p>	Yes - Case-by-case; with any State, territory or foreign jurisdiction of the United States or any country or any other certifying authority, having criteria for operator certification \geq New Mexico.	<p>NMSA 1978 §§ 61-33-1 to 10</p> <p>Regs: Title 20, Chapter 7, Part 4.</p>	Yes - Advisory board comprised of 7 certified operators. The board has representation on the licensing board (2 of the 15 members on the licensing board are certified operators from the advisory board)	<p><i>Distribution:</i> Distribution of Treated SW or Chlorinated GW: pop served <500 = Class 1; 501-20k = Class 2; >20k = Class 3. Distribution of Unchlorinated GW: pop served < 5k = Class 1; 5k-20k = Class 2; >20k = Class 3.</p> <p><i>Treatment:</i> PWSs receive one of six different classifications, based on population served and type of treatment employed: Small Water (SW), Advanced Small Water (SWA), 1, 2, 3, or 4.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
NM	<p>All operators must:</p> <ul style="list-style-type: none"> Have reached the age of majority (18 years old). Pass an examination (except some operators who were employed at systems serving <2,500 persons prior to 7/1/93). <p><i>Experience Requirement</i> -- SW, SWA, and Class 1: 1 yr exp + 10 training credits -- Class 2: 3 yrs exp + 30 training credits -- Class 3: 5 yrs exp + 50 training credits -- Class 4: High school (or GED), 1 yr as a class 3 certificate holder, + 80 training credits.</p> <p>The regulations allow certain specified substitutions (e.g., education used in place of exp or training), but 1 year is generally the min amount of exp allowed.</p> <p>Temporary certification may be issued to a system operator for a period of up to 6 months while that operator acquires training or until a certified operator is engaged.</p> <p>Total Number of Active Operators: 1,737 (5 people possess both distribution and treatment)</p>	<ul style="list-style-type: none"> Renewal period: triennially 30 training credits <p>All certificates expire the last day of the certificate holder's birth month.</p> <ul style="list-style-type: none"> Certificates may be reinstated without penalty for up to 30 days after expiration. After 30 days, and within one year of the expiration date, certificates may be reinstated upon reapplication and payment of a \$5/month penalty. 	<ul style="list-style-type: none"> After 1 year, any certificate which has not been reinstated will require reexamination. 	<p>Fees*: \$15 for each Dept. action, such as examination; \$10 for issuance of a temporary license; \$25 for certification without examination; \$15 for renewal \$5/certificate/month for late renewal</p> <p>*Amount for fees limited by ceiling in State statute.</p> <p>Funding: After being held one month for refund purposes, all receipts go into the State general fund.</p> <p>Additional funding obtained from water system "conservation fee" and Federal PWSS grant.</p> <p>Budget: \$140,000 (approx.)</p> <p>FTEs: 3.0</p>	<p>If the Certification Act or related regulations are violated, the commission may:</p> <ul style="list-style-type: none"> -- Issue a compliance order to require compliance, assess a fine not to exceed \$2,500 or both. — Commence court civil action for appropriate relief, including an injunction. — Failure to meet a compliance order can be fined up to \$5,000 per day. -- Compliance orders can be appealed in public hearing. <p>Violations are generally discovered one of three ways: 1) sanitary surveys- trainers and technical assistance staff in the field; 2) public complaints; 3) semi-regular staffing surveys</p> <p>Agency: NM Water Quality Control Commission has jurisdiction over enforcement actions against operators and systems.</p>	No formal review.

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State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities														
New York	NY State Department of Health	<p>Each PWS must be under the responsible charge (accountability for and performance of active regular onsite operation, maintenance and supervisory functions) of an operator certified ≥ the grade of the system and an assistant operator with the following required minimum grade of certification (listed below). The assistant operator is a person who, under the direction of a certified water treatment operator, is involved in the day-to-day operation of a water treatment plant or a major segment of a water treatment plant.</p> <table><tr><td><u>Type of Plant</u></td><td><u>Min. Grade</u></td></tr><tr><td>Grade D:</td><td>None</td></tr><tr><td>Grade C:</td><td>None</td></tr><tr><td>Grade IIB:</td><td>C or IIB</td></tr><tr><td>Grade IB:</td><td>IIB</td></tr><tr><td>Grade IIA:</td><td>IIA</td></tr><tr><td>Grade IA:</td><td>IIA</td></tr></table> <p>The majority of systems have all operators certified.</p> <p><i>Exemptions:</i> . Water systems serving fewer than 15 service connections or less than 25 people are exempt from the certified operator requirements.</p> <p>Total Systems CWS: 3,383 NTNCWS: 753</p> <p>Total Covered Systems² CWS: 3,383 NTNCWS: 753</p>	<u>Type of Plant</u>	<u>Min. Grade</u>	Grade D:	None	Grade C:	None	Grade IIB:	C or IIB	Grade IB:	IIB	Grade IIA:	IIA	Grade IA:	IIA	<p>Yes - on a case-by-case basis with any other State or Canada, provided that the criteria for operator certification ≥ New York.</p> <p>Unless credentials are impeccable, certification at the upper grade levels (IA, IB) will not be granted through reciprocity.</p>	<p>Public Health Law, Article 2, Sec. 225</p> <p>Chapter I State Sanitary Code, Subpart 5-4: Classification of CWS Operators (as amended--see Attachment)</p>	No.	<p><i>Grade D:</i> Distribution system (no plant), serving <i>more than</i> 100 people. <i>Grade C:</i> Plant serving < 1000 people, no filtration <i>Grade IIB:</i> < 2.5 MGD but > 1000 people, no filtration <i>Grade IB:</i> Plant > 2.5 MGD without filtration <i>Grade IIA:</i> Plant ≤2.5 MGD with filtration <i>Grade IA:</i> Plant > 2.5 MGD with filtration</p> <p>A Grade D certificate is needed along with A or B for operating a plant and distribution system for population ≥ 1000.</p>
<u>Type of Plant</u>	<u>Min. Grade</u>																			
Grade D:	None																			
Grade C:	None																			
Grade IIB:	C or IIB																			
Grade IB:	IIB																			
Grade IIA:	IIA																			
Grade IA:	IIA																			

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
NY	<p><i>Experience Requirement</i> Grade IA: 10 yrs experience, 1 yr. at IA facility. Grade IIA: 1 yr at filtration plant Grade IB: 10 yrs. at plant Grade IIB: 1 yr. at plant Grade C: 6 mos. at plant Grade D: 1 yr. at "D" facility</p> <p><i>Education Requirements</i> Grade IA: HS diploma or GED, completion of required course (60 hrs) Grade IIA: HS diploma or GED, completion of required course (60 hrs) Grade IB: HS diploma or GED, completion of required course (30 hrs) Grade IIB: HS diploma or GED, completion of required course (30 hrs) Grade C: Completion of required course (18 hrs) Grade D: Completion of required course (15 hrs)</p> <p>Note: Number of hours were listed in a fact sheet, not in the regulations. Regulation allows for substitution of higher education for yrs. of experience.</p> <p>Total Number of Active Operators: 6,784</p>	<ul style="list-style-type: none"> • Renewal period: every 4 years <p><i>Grades A and B: 3.0 CEUS in 4 yrs.</i> <i>Grade C: 1.5 CEUS in 4 yrs.</i> <i>Grade D: Verification of work history and address</i></p> <p>1 CEUS = 10 contact hours</p>	<p>An individual who allows his/her certification renewal to lapse for more than 1 year will be required to repeat the type and amount of experience and/or training required for that grade of certification.</p> <p>At the discretion of the Director of Operator Certification program a one time, six month extension may be given under extenuating circumstances. The request must be made while the operator is still certified.</p>	<p>Fees: • No fees</p> <p>Funding: Revenue for operator certification program comes from the State general purpose fund.</p> <p>Budget: Data not available.</p> <p>FTEs: 1.0</p>	<p>For violations by a system, there is an Administrative Tribunal (AT10 Process). This includes:</p> <ul style="list-style-type: none"> • a hearing before the "judge." • a presentation of evidence. • possible fines of up to \$5,000. <p>Compliance:</p> <ul style="list-style-type: none"> • Monitoring by Bureau of Public Water Supply Protection is done annually. • Other monitoring may be done by local county health departments. • All systems (except C) must submit monthly operation reports (include grades and certification #s of operators). <p>-Grade C may file on quarterly basis if approved.</p> <p>Agency: NY State Department of Health has jurisdiction on enforcement actions against operators and systems.</p>	<p>No. There are several informal review processes but no formal ones. The director continually monitors the schools and institutions that conduct the training. S/he does this by either directly monitoring the operator certification course or by sending out evaluations to those who have taken the course. In addition, the program is occasionally visited by state auditors.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
North Carolina	NC Water Treatment Facility Operators Board of Certification under the Dept. of Environment, Health, and Natural Resources	<p>Treatment: There shall be an operator in responsible charge, with certification equal to or above the classification of the facility, for each well that adds chemicals to the water. Groundwater treatment only needs a designated operator in responsible charge (ORC) (does not have to be on site at all times)</p> <p>There shall be an operator with \geq a Grade C surface certification on the premises when a Class A, B, or C surface water facility is treating water. Each surface water treatment facility must have a certified operator on each shift.</p> <p>Distribution: There shall be an ORC for the distribution portion of CWS serving >3,300 service connections. This operator shall be certified at the Grade level \geq the distribution classification of the facility.</p> <p>-- An operator is any individual who operates, maintains, or inspects water treatment facilities.</p> <p>Total Systems CWS: 2,309 NTNCWS: 701</p> <p>Total Covered Systems² CWS: 1,547* NTNCWS: 470*</p> <p>*These figures are estimates</p>	<p>Yes - with any State, territory or possession of the United States having criteria for operator certification \geq North Carolina.</p> <p>The applicant must live or work in N.C.</p> <p>S/he must pass a North Carolina exam at the respective operator classification level.</p>	Article 2 of the General Statutes (90-A-20 through 90-A-33) and North Carolina Administrative Code Title 15A, Subchapter 18D, Sections .0101-.0601.	<p>Yes - Water Treatment Facility Operators Board of Certification. Consists of eight members appointed by the governor.</p> <p>Members shall include: a current water treatment facility operator, managers of NC municipalities using a surface water or treated groundwater supply, an employee of a NC municipality (Director of Utilities, etc.), an employee of a private water utility, a faculty member of a 4 yr college or university, a member of the Dept. of Environment, Health, & Natural Resources, a rep of the public at large</p> <ul style="list-style-type: none"> The Board has the authority to develop and adopt regulations for administration of statutes. It tests and certifies operators. The Board of Examiners prepares and grades exams. 	<p>There are three types of classifications which are defined by the source of the water and the type of facility (treatment or distribution): surface water, well water, and distribution. Within those classes are 3 grades: a-c. Surface and well water systems are classified based on a point system (unless they are not classified, then they are based on the # of connections). See Appendix A-13 for a complete description of the point system.</p> <p>Classification of distribution systems is based on # of connections.</p> <p>Class C: >100 and <1001 service connections</p> <p>Class B: \geq 1001 and <3300 service connections</p> <p>Class A: \geq 3300 service connections</p>

1. This column contains information on the certification board or equivalent agency in the State operator certification program.

2. The total number of covered systems refers to those systems that are currently required by State statute or regulation to have a certified operator. There are some discrepancies between the data we obtained from the States and the data in the Safe Drinking Water Information System (SDWIS). For national uniformity, we are using the SDWIS data in States where 100% coverage of CWS and NTNCWS applied.

State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
NC	<p>There are 3 grades of certification for each class of system.</p> <p>Surface (A, B, C) Well (A,B,C) Distribution (A,B,C) See Appendix A-13 for a complete description of the various classifications of operators.</p> <p>Note: educational equivalent= bachelor's degree in natural or physical sciences OR diploma in water and wastewater technology from 2 year program (with this, operator starts at Grade B and works toward the 6 month requirement)</p> <p>Total Number of Active Operators: 5,600</p>	<ul style="list-style-type: none"> • Renewal period: annually <p>All certificates expire on the first day of the new calendar year. If renewal fees have not been paid by the first day of February, certification becomes delinquent.</p> <p>After February 1, pay late fee of \$30 (paid each year certificate is delinquent).</p>	<p>If an operator fails to renew his/her certificate and allows it to lapse for 5 years, the certificate shall be revoked.</p> <p>Then, the operator must reapply and pass the exam again.</p> <p>If a certificate is revoked for any reason other than the above, it is unlikely that operator would be eligible to reapply.</p>	<p>Fees:</p> <ul style="list-style-type: none"> • exam and certificate: \$20; • temporary certificate: \$18; Renewal charges: \$18; <p>Late fees: \$30 (plus the cost of the certificate)</p> <p>Funding: All fees are dedicated to operator certification. The program is self-supporting (with volunteers).</p> <p>Budget: Operator certification budget ≈ \$100,000</p> <p>FTEs: 2.0 (does not include volunteers)</p>	<p>Upon recommendation of the Board of Certification, an administrative civil penalty may be imposed on any person, corporation, company, association, ... who violates G.S. 90A-29(a). Each day of violation = separate offense. Penalty ≤ \$100/day.</p> <p>PWS office/division has the power to enforce regulations for systems with fines of up to \$5,000/day.</p> <p>Violations may be discovered by sanitary surveys, public complaints, and through a cross-comparison of water supply system records and the records on operators.</p> <p>Agency: Water Treatment Facility Operators Board of Certification has jurisdiction in enforcement actions against operators. North Carolina Dept. of Environment, Health, and Natural Resources has jurisdiction in enforcement actions against system owners.</p>	<p>No formal review. Annual report provided to the Governor.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
North Dakota	North Dakota Department of Health	<p>Operator certification is mandatory for all persons in direct responsible charge of the operation or maintenance of all public water treatment facilities, water distribution and storage systems, and wastewater facilities. Direct responsible charge (DRC) means full and active performance of onsite operation, where the operator is responsible for technical support of the facility or system and provides direction to other operators. Operator (in DRC) must be onsite or on call during major shift operations and is responsible for the operation of a major segment of a facility/system, or is the sole person employed as the facility or system operator. At a minimum, an operator in direct responsible charge shall hold a certificate equal to the classification of the system or facility where he/she is employed.</p> <p>Facilities with chemical treatment need at least 1 certified operator. Facilities with distribution systems need one certified operator.</p> <p>Remote certification: One operator may be in direct responsible charge of more than one facility with amount of time and duties determined by city, municipality, etc. Surface water systems shall have certified operator. Well water facility is exempt from having a certified operator if there is no treatment.</p> <p>Total Systems CWS: 318 NTNCWS: 35 Total Covered Systems² CWS: Approx. 300 NTNCWS: Approx. 12</p>	Yes - with any State, territory or possession of the United States having criteria for operator certification \geq North Dakota.	North Dakota Code Annotated Chapter 23-26 §23-26-01 through §23-26-09 and North Dakota Rules Article 33-19 Chapter 33-19-01-(01-16)	No	<p>Distribution/storage systems (based on population served): <i>Class Ia</i>: <500 <i>Class I</i>: 500 to 1,500 <i>Class II</i>: 1,500-15,000 <i>Class III</i>: 15,000-50,000 <i>Class IV</i>: \geq50,000</p> <p>Treatment facilities: <i>Class Ia</i>: all water facilities, simple chemicals <500 served; <i>Class I</i>: 500 to 5,000; <i>Class II</i>: a--5,000-15,000 & chemical treatment; b--<1,000 & chemical softening; c--<1,500 & coagulation, sedimentation & filtration; d--<2,000 & chemical oxidation of iron, manganese, etc.; e--<2,000 & uses other methods than the above. <i>Class III</i>: a-e--same treatment as above, but different population sizes; <i>Class IVa</i>: >5,000 & chemical softening; b-->10,000 & coagulation and sedimentation; c-->15,000 & chemical oxidation of iron; and d-->15,000 & other treatments.</p>

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2. The total number of covered systems refers to those systems that are currently required by State statute or regulation to have a certified operator. There are some discrepancies between the data we obtained from the States and the data in the Safe Drinking Water Information System (SDWIS). For national uniformity, we are using the SDWIS data in States where 100% coverage of CWS and NTNCWS applied.

State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
ND	<ul style="list-style-type: none"> Written examination Minimum experience: <p>Grade IA: High School + 6 mos experience.</p> <p>Grade I: High School + 1 yr. experience.</p> <p>Grade II: High School + 3 yrs. experience</p> <p>Grade III: High School + 4 yrs experience</p> <p>Grade IV: High School + 5 yrs experience</p> <p>College may be substituted for some experience on Grades II, III, IV.</p> <p>Total Number of Active Operators: Data not available Total Certificates: 718 (Some certified operators may hold more than one certificate thus the number of actual operators is less.)</p>	<ul style="list-style-type: none"> Renewal period = annually (all certificates expire on July 1) <p>CEUs: must earn at least 12 hrs in 3 yrs. (Can attend seminars, workshops, and training.)</p> <p>An operator whose certification is invalidated due to failure to renew may apply for renewal within one year following the certificate's expiration date.</p>	<p>Failure to renew a certificate for a period of more than one year following expiration of the certificate will require recertification by reapplication, reexamination, and payment of fees.</p> <p>Certificates which have been revoked for a cause, invalidated, or replaced by one of a higher grade are not renewable. The suspension period is determined by the Department.</p>	<p>Fees:</p> <ul style="list-style-type: none"> Certificate: \$10 Renewal: \$5 <p>Funding: Money is taken from State revolving loan program where fees are deposited and the Drinking Water Program budget.</p> <p>Budget: Revenue from fees: \$11,570 Budgeted money: \$31,984 Total to operate program: \$43,554</p> <p>FTEs: 1-1.5</p>	<p>Violation of any operator certification rule is a Class A misdemeanor.</p> <p>North Dakota Department of Health has jurisdiction on enforcement issues.</p> <p>Facilities are inspected at the discretion of the Department.</p> <p>Agency: Department of Health has jurisdiction on enforcement actions against operators and systems.</p>	<p>No. There is no program review that takes place. The exams themselves are reviewed and updated, but once the rules and regulations are established it is very difficult to change.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Ohio	<p>Ohio Environmental Protection Agency</p> <p>Director of OH EPA classifies facilities, determines time and place of exam.</p>	<p>Regulation applies to Public Water Systems (PWSs) serving population >250 or if director has determined that a health hazard exists.</p> <p>Operator in "responsible charge" must be certified at or above level of facility.</p> <p>Responsible charge= responsible for on-site supervision of technical operations and maintenance of a PWS or wastewater works or parts which affect the quality of water or performance of facility.</p> <p><i>Grandfather Clause:</i> An operator certified prior to 1980 is exempt from all certified operator requirements except payment of fees (tied to specific system).</p> <p>Total Systems CWS: 1,462 NTNCWS: 1,129</p> <p>Total Covered Systems² CWS: 923 NTNCWS: 770</p>	<p>Yes - with certificate issued by another State and proof of :</p> <ul style="list-style-type: none"> • employment in PWS or wastewater works in OH that requires a certified operator • passed examination ≥ OH standards 	<p>Ohio Revised Code, Sections 3745, 6109, & 6111</p> <p>Ohio Administrative Code §§3745 - 3747</p>	<p>Yes - Advisory Board of Examiners Advises Director on:</p> <ul style="list-style-type: none"> • classification of facilities • qualifications of operators • content of examination <p>also,</p> <ul style="list-style-type: none"> • reviews applications for exam and advises director which applicants meet the requirements to take the exam. • reviews exams and recommends issuance/non-issuance of certificates to director 	<p>Distribution Systems: Class I or II only based on complexity of distribution and storage, amount of consumption, and potential for health hazards.</p> <p>Treatment Plants: Each public water system is classified I-IV based on source of supply, quality of source, complexity of treatment, complexity of distribution, amount of consumption, and the system's potential for health hazards.</p> <p>See Appendix A-14 for a complete description of the point system.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
OH	<ul style="list-style-type: none"> Written examination (or in special cases, oral exam) Minimum experience: <i>Class I-III</i>: high school + 1, 3, 5 years, respectively, of experience with PWSs <i>Class IV</i>: valid Class III certificate + 2 yrs. in charge of a III or IV PWS OR valid Class III and demonstrated ability for at least 2 yrs as an assistant to the individual in responsible charge of a Class IV. <p>Total Number of Active Operators: 7,115</p>	<ul style="list-style-type: none"> Renewal period: every 2 yrs. (no further renewal requirements, i.e. CEUs) <p>Certificate expires on 12/31 of second year after issue, every 2 years afterwards.</p> <p>If >30 days, but <2 years after expiration, pay renewal + late fee</p>	<p>If > 2 years after expiration, must</p> <ul style="list-style-type: none"> reapply pay required fees pass exam <p>After a period of 12 months, the director may reinstate any person whose certificate has been revoked upon the presentation of evidence which warrants such reinstatement.</p>	<p>Fees:</p> <ul style="list-style-type: none"> Initial, Limited Certification (Grandfathered) and Reciprocity-- Class I - \$25; Class II - \$35; Class III - \$45; • Replacement: \$5; • Renewal: \$15 (plus \$10 if delinquent). <p>Funding: All fees are deposited into a dedicated "drinking water protection fund" to make program self-supporting.</p> <p>Budget: \$235,000 (for water and wastewater)</p> <p>FTEs: 1.5</p>	<p>Director of OH EPA may revoke certificates of negligent operators, or work with county prosecutors in the event of falsification of data.</p> <p>Information not available on actions against systems in violation.</p> <p>Violations are generally discovered through inspections conducted during sanitary surveys.</p> <p>Agency: OH Environmental Protection Agency has jurisdiction over enforcement actions against operators. Information not available on Agency presiding over systems.</p>	No formal review.

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Oklahoma	OK Department of Environmental Quality	<p>All CWSs are required to have a certified operator.</p> <p>All non-community water systems (serving < 15 service connections or < 25 people) and waterworks/wastewater works which only maintain & submit operation records/analysis are exempt. Additionally, exemptions may be requested in writing for small purchased water supply systems protected by plumbing ordinances.</p> <p>Total Systems CWS: 1,202 NTNCWS: 150</p> <p>Total Covered Systems² CWS: 1,202 NTNCWS: Data not available.</p>	Yes - an operator with a valid certificate from any State with comparable requirements for certification may be granted a certificate in OK without an examination if that State will do the same for an operator from OK.	Chapter 700 (252:700-1 to 252:700-13) Waterworks and Wastewater Works Operator Certification	<p>Yes - Advisory only 9-member council consisting of:</p> <p>3 - valid certificate holders from municipal waterworks;</p> <p>1 - representative of higher education;</p> <p>1 - from list of nominees from OK Municipal League;</p> <p>2 - from list of nominees from OK Rural Water Association; and</p> <p>2 - from list of nominees from OK Water Pollution Control Agency.</p>	<p><i>Temporary Cert.</i>: Available for those who are in the process of obtaining a Class D certification (not available for superintendents). °</p> <p><i>Class D</i>: distribution systems or chlorinated GW systems that serve < 1500.</p> <p><i>Class C</i>: all plants 1,500-15k, surface water plants 25-1,500 or GW systems that use treatment other than disinfection serving 25-1500.</p> <p><i>Class B</i>: 15k-50k</p> <p><i>Class A</i>: > 50,000</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
OK	<p><i>Age Requirement</i></p> <ul style="list-style-type: none"> At least 18 years old At least 17 for temp. cert. <p><i>Examination Requirement</i></p> <ul style="list-style-type: none"> Written examination (or provide proof of certification in a State with similar requirements) <p><i>Experience Requirement</i></p> <ul style="list-style-type: none"> Temp: none Class D: none Class C: 1 yr. Class B: 3 yrs experience, of which 1 must be hands-on Class A: 8 yrs experience, of which 3 must be hands-on operating experience <p><i>Training Requirement</i></p> <ul style="list-style-type: none"> Temp: none (in process of arranging training) Class D: 16 hrs. Class C: 36 hrs. Class B: 100 hrs. Class A: 200 hrs., including 40 in advanced treatment and managerial training. <p>Helper: required to register with the OK DEQ; must be under the direct supervision of a certified operator - no education, experience, or training requirements</p> <p>Total Number of Active Operators: Data not available.</p>	<ul style="list-style-type: none"> Renewal period: annually All Classes: 4 hrs training/year <p>May renew certificate with a late fee for up to 2 years after the expiration date.</p>	<ul style="list-style-type: none"> Procedures for renewal after certification expires: after 2 years, operator must reapply, reexam, and pay the fees. Recertification after a certificate is revoked: at discretion of the Department. 	<p>Fees:</p> <ul style="list-style-type: none"> Filing and exam: \$40 Renewal: \$30 Reactivation (renewal + late fee): \$40 Registration fee (per helper): \$10 Reinstatement: \$10 <p>Funding: The program is self-supporting and runs itself on the revenue brought in through fees.</p> <p>Budget: Data not available.</p> <p>FTEs: 7</p>	<p>A violation of any of the provisions of the Act is a misdemeanor. Enforcement actions may include: fines (\leq\$100), orders (administrative, consent, or Notice of Violation), and/or imprisonment (\leq30 days)</p> <p>Information on how violations are discovered is not available.</p> <p>Agency: OK DEQ has jurisdiction over actions against the system and the operator.</p>	Information not provided.

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Oregon	Health Division of Oregon Department of Human Resources	<p>No water supplier shall employ any person to be in direct responsible charge of a CWS or dist. system who does not possess an appropriate valid operators certificate, except for water systems directly supervised by a registered professional engineer who has a valid certificate to practice engineering issued under ORS 672.002 to 672.325.</p> <p>Operator definition - person who has direct hands on responsibilities for the actual operations or directions of on-site supervision of systems.</p> <p>Groundwater systems under 150 connections need not have certified operators; however, continuing education requirements do apply.</p> <p>NTNC water systems are excluded from having a certified operator.</p> <p>Total Systems CWS: 881 NTNCWS: 328</p> <p>Total Covered Systems² CWS: 439 NTNCWS:0</p>	Yes - Reciprocity with other States or provinces having recognized certification programs. Exam, experience, and training requirements must be equivalent. Applicant must have valid certification from that State or province.	Oregon Revised Statute Section 448 and Oregon Certification Rules 333-61	Advisory board only. Members consist of a subset of the Drinking Water Advisory Committee (DWAC) as well as additional members appointed by the DWAC.	<p>Water Treatment Plants and Water Distribution Plants: classified by size and complexity of treatment (where there is no treatment or only treatment is disinfection or slow sand filtration classification is based on population): <i>Class 1</i> (WD1) ≤ 1500 <i>Class 2</i> (WD2) 1501-15000 <i>Class 3</i> (WD3) 15001-50000 <i>Class 4</i> (WD4) 50001+</p> <p>Plants with other treatments are classified based on a point system. <i>Class 1</i> (WT1) ≤ 30 points <i>Class 2</i> (WT2) 31-55 <i>Class 3</i> (WT3) 56-75 <i>Class 4</i> (WT4) > 76</p> <p>See Appendix A-15 for a complete description of the point system.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
OR	<ul style="list-style-type: none"> At least 70% on written examination Minimum experience: <i>Class I</i>: high school diploma plus 1 yr. experience; <i>Class II</i>: 3 yrs. experience or 2 yrs. exp. and 1 yr. Post-H.S. ed.; <i>Class III</i>: 1 yr post-H.S. ed., 3-5 yrs. exp, incl. 2 yrs. Class II operational decision making exp.; <i>Class IV</i>: Class III certified + at least 2 yrs post high school schooling. 50% experience must include operational decision making at Class III system. <p>Operator in Training - a person w/o required experience may take grade 1 exam and become an OIT.</p> <p>Operators in direct responsible charge shall be certified at a grade equal to or greater than the classification of the plant they work at.</p> <p>Certification grades for operators will be classified according to size and complexity of system and level of their responsibilities.</p> <p>Total Number of Active Operators: 1,883</p>	<ul style="list-style-type: none"> Renewal period: annually 2 CEUs/2 yrs = "satisfactory evidence of professional growth" <p>1 CEUS = 10 hrs of participation in an organized continuing education program.</p>	<p>An operator who has failed to renew certification by March 31 following the date of expiration shall be considered suspended and shall not be in direct responsible charge of a PWS or distribution system.</p> <p>If certification is not renewed within a year of expiration, operator must reapply as a new applicant.</p> <p>Operator must apply for reinstatement by submitting application, reinstatement fee, renewal fee, and documentation of CEUs.</p> <p>Operators whose certificates have been revoked must wait 1 year after effective date of final order of revocation, apply as a new applicant and pay a reinstatement fee.</p>	<p>Fees:</p> <ul style="list-style-type: none"> Initial certificate: \$40 Renewal: \$40 Late fee: \$10.00 Exam: \$35 Reciprocal certificate: \$30 + certificate renewal fee Reinstatement: \$50 + certificate renewal fee Certificate w/ variance: \$40 + Certificate renewal fee Combination certificate: \$20 <p>Funding:</p> <p>Fees collected shall be deposited in the General Fund the State Treasury to the credit of the Health Division. Within fund for Health Division there is a dedicated fund for the operator certification program</p> <p>Budget: \$150,000 /2yrs.</p> <p>FTEs: 1.75</p> <p>Training programs are through private trainers.</p>	<p>Any person who knowingly and willfully violates ORS 448.455 shall upon conviction be punished by a fine of ≤\$500/day of violation, or by imprisonment for ≤6 months, or both.</p> <p>Pursuant, to ORS 448.280, 448.285, 448.290, any person who violates these rules shall be subject to a civil penalty. Penalties are based on population served by the water system.</p> <p>Only Administrator can impose penalties, penalties shall not become effective until person is given opportunity for a hearing.</p> <p>Violations are discovered by complaints, visits, or contact with water systems. Periodically, the Health Division will require owners of systems to provide the names of their certified operators.</p> <p>Agency: Health Division of Department of Human resources has jurisdiction on enforcement actions operators and systems.</p>	<p>Yes. Advisory Board of Drinking Water Advisory Committee addresses issues in their meetings.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Pennsylvania	Pennsylvania Department of Environmental Protection - Division of Certification, Licensing, and Bonding	<p>Public Water treatment plants shall have a minimum of two certified operators of the required classification. One of these shall be regularly paid and retained. The second shall be designated as a backup or replacement who would be directly responsible for operation when the first certified operator is not available.</p> <p>Operator definition - direct responsibility for operation of PWS. Individual whose decisions and directions (based on technical knowledge) determine quality of effluent.</p> <p>No certified operator may supervise the operation of more than one facility which requires certified operators unless the Department has given approval. The Department may require the services of additional operators for a facility.</p> <p>Total Systems CWS: 2,266 NTNCWS: 1,301</p> <p>Total Covered Systems² ≈2,300 (includes CWS & NTNCWS)</p>	Yes - A person holding a valid certificate issued under the law of another State, territory or the District of Columbia will be issued a certification approximately equivalent to the classification of the certificate issued by another State, territory or District of Columbia if the other certificate was issued as a result of passing an examination equivalent to that given by the board. Also, the applicant must meet the experience requirements of this chapter.	Sewage Treatment Plant & Waterworks Operators Certification Act (P.L. 1052 No. 322) and PA Code Title 25, Rules and Resolutions; Environmental Protection Chapters 301, 303, and 305	<p>Yes - The State Board for Certification of Sewage Treatment Plant & Waterworks Operators. The Board is appointed by the Governor and consists of 6 members. Members include: 1 certified water works operator; 1 certified sewage water operator; 1 official or owner of water treatment and 1 from a sewage treatment plant; 1 member from academia; and the Secretary of Environmental Resources or his representative. Board shall review and pass upon applications for certification, receive and act upon complaints, and formulate, adopt, and promulgate and repeal rule necessary to implement these rules.</p>	<p>Classified by authorized plant design capacity (mgd) and treatment types</p> <p>Type 3: only disinfection A) unlimited capacity B) 5-10 mgd C) 0-5 mgd</p> <p>Type 2: no filtration but chemical treatment A) unlimited capacity B) 5-10 mgd C) 0-5 mgd</p> <p>Type 1: filtration and chemical treatment A) unlimited capacity B) 1-5 mgd C) 0-1 mgd</p> <p>WD1: Distribution only</p> <p>WD3: Very Small Treatment Plants</p>

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2. The total number of covered systems refers to those systems that are currently required by State statute or regulation to have a certified operator. There are some discrepancies between the data we obtained from the States and the data in the Safe Drinking Water Information System (SDWIS). For national uniformity, we are using the SDWIS data in States where 100% coverage of CWS and NTNCWS applied.

State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹										
PA	<ul style="list-style-type: none">Written examinationHigh school graduate (all classes) - College graduates and/or college experience reduces necessary experiential years.Experience required to be an operator: <table><tr><td></td><td>Total, Min. Experience</td></tr><tr><td>Class D</td><td>2 yrs, 6 mos.</td></tr><tr><td>Class C</td><td>4 yrs, 1 yr</td></tr><tr><td>Class B</td><td>6 yrs, 2 yrs</td></tr><tr><td>Class A</td><td>8 yrs, 3 yrs</td></tr></table> <p>High School and College reduces experience requirements</p> <p>Total Number of Active Operators: 6,610</p>		Total, Min. Experience	Class D	2 yrs, 6 mos.	Class C	4 yrs, 1 yr	Class B	6 yrs, 2 yrs	Class A	8 yrs, 3 yrs	<ul style="list-style-type: none">Renewal period: annually <p>1 CEUS = 10 hours</p> <p>After 6 months from that effective revocation date, the operator may reapply for a new certificate with an examination.</p>	<p>If renewal procedures are not followed after 6 months, applicants must reapply, pay required fee and pass the examination.</p> <p>Revocation: Requirements for operators determined by Board.</p>	<p>Fees:</p> <ul style="list-style-type: none">Application: \$20.00Renewal: \$10.00 <p>Funding: Revenue goes into general fund. Budget comes from general fund.</p> <p>NOTE: Water and Wastewater programs are combined. The following budget numbers are for both programs. A split was not given and cannot be determined.</p> <p>Budget: \$171,000</p> <p>NOTE: Water and Wastewater programs are combined and use the same personnel. An FTES split could not be determined.</p> <p>FTEs: 4.0 (at central office does not include regional offices and compliance officers)</p>	<p>Any person who violates any provision of this act, shall upon conviction thereof, in a summary proceeding, be sentenced to pay a fine of $\geq \\$50$ and $\leq \\$100$ and costs. Each day that the offense continues constitutes a separate offense.</p> <p>Department of Environmental Protection will conduct inspection of facilities. Board will act upon public complaints.</p> <p>Agency: The Department of Environmental Protection reports violations to the State Board for Certification of Sewage Treatment Plant and Waterworks Operators. The Board has discretion in hearings.</p>	No formal review
	Total, Min. Experience															
Class D	2 yrs, 6 mos.															
Class C	4 yrs, 1 yr															
Class B	6 yrs, 2 yrs															
Class A	8 yrs, 3 yrs															

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Rhode Island	Rhode Island Department of Health	<p>Treatment Facilities: Any CWS or PWS serving >500 persons, using surface water or ground water under the direct influence of surface water, must be under the supervision of a superintendent or assistant superintendent who is certified by the Board.</p> <p>Distribution facilities: All PWSs serving >500 persons must have an operator certified no lower than one grade lower than the grade of the facility.</p> <p>Every "operator" must be certified. An operator is an individual who is assigned the responsibility of one or more mechanical treatment units, processes, or other important functions at a water supply treatment plant or the operation of a transportation and distribution system of a water supply system.</p> <p>Grandfather Clause: Certificates will be issued upon application, without examination, to those Rhode Island public water supply treatment plant and distribution system operators employed as of June 27, 1995 for the system class held at that time.</p> <p>Total Systems CWS: 85 NTNCWS: 72</p> <p>Total Covered Systems² CWS: 57 NTNCWS: 15</p>	Yes - 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, or any other country with requirements for certification \geq Rhode Island. At the same time of the application, applicants must be in good standing with the State in which the original certificate was issued, which includes having completed the continuing educational requirements on a prorated basis.	Title 23, Chapter 65-1 to 15 of the General Laws of Rhode Island and RI Rules and Regulations: R23-65-DWQ	Yes - Board of Certification of Drinking Water Operators consisting of 7 members including the Director of the Dept. of Health (or appointee) and 6 members appointed by the Governor.	<p>Distribution and transmission facilities are based on population served:</p> <p><i>Class VSSD, 1D:</i> 501-1,500 people. <i>Class 2D:</i> 1,501-15,000 people. <i>Class 3D:</i> 15,001-40,000 people. <i>Class 4D:</i> 40,001 + people</p> <p>Classification of treatment systems is based on complexity with the highest being the most complex. Classification is based on a point system.</p> <p>Treatment facilities: <i>Class VSST, 1T, 2T, 3T, 4T.</i> VSST (Very Small Water System): any system that serves a population of <500 people</p> <p>See Appendix A-16 for a complete description of the point system.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
RI	<ul style="list-style-type: none"> • Successful completion of Class specific written examination. <p><i>VSST/VSSD</i>: educational requirements satisfactory to Board and six months experience.</p> <p><i>Grade 1 (D,T)</i>: High school diploma or GED and 6 months experience.</p> <p><i>Grade 2 (D,T)</i>: HS diploma or GED + possession of Class 1 certification +2 yrs experience.</p> <p><i>Grade 3 (D,T)</i>: HS diploma or GED, + Bachelors' degree + 2 yrs experience OR Associates degree + 4 yrs experience + Class II certification.</p> <p><i>Grade 4 (D,T)</i>: HS diploma or GED + Bachelors' degree + 2 yrs experience OR Associates degree + 4 yrs experience, and Class III certification.</p> <p>Total Number of Active Operators: 469</p>	<ul style="list-style-type: none"> • Renewal period: triennially <p>To renew any certification the operator must have worked at least 20% of time in area certified.</p> <p>The following Contact Hours are required (1 CEUS = 10 Contact hours):</p> <p><i>Class VSS</i>: 3 hours <i>Class 1</i>: 15 hours <i>Class 2</i>: 15 hours <i>Class 3</i>: 30 hours <i>Class 4</i>: 30 hours</p>	<p>If an operator's license has lapsed, reexamination may be required at the discretion of the Department. This is decided on a case-by-case basis.</p> <p>Revoked certificates are handled on a case-by-case basis. Currently no official policy.</p>	<p>Fees: Fees for the examination are set by board but are no more than \$50.00</p> <p>Fee resources go to ABC to cover the cost of the exams.</p> <p>Funding: Funding for the program comes from the general fund.</p> <p>Budget: \$35,000 (approx.)</p> <p>FTEs: 0.25 current (as of 5/97)</p>	<p>Public water systems in violation shall be subject to a fine of ≤ \$500, or by imprisonment for ≤ 30 days, or both. Each day in violation shall be considered a separate offense.</p> <p>Information not available regarding how violations are discovered.</p> <p>Agency: Board of Certification of Drinking Water Operators has jurisdiction in enforcement actions against systems and operators.</p>	No formal review

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
South Carolina	South Carolina Department of Labor, Licensing, and Regulation and the Department of Health	<p>All PWSs classified in the following Groups shall be required to have 1 certified operator-in-charge on site every day holding a valid certificate in the following grade level:</p> <p>Group I: exempt; Group II: trainee Group III: grade D; Group IV: grade C; Group V: grade B (except systems with adv treatment: grade A).</p> <p>An operator is any person employed in a public water or wastewater treatment plant whose duties include: testing, measuring or otherwise determining the chem quality of water; direct responsibility for adding or taking away any chem substance or solution or otherwise altering the characteristics of the water; adjusting dials, valves, meters or other instruments or equipment which in any way regulate or effect changes in the quality or characteristics of the water.</p> <p><i>Grandfather Clause:</i> Operators employed in water treatment plants that were in operation on or before 7/1/87, and have been identified by the DoH and Env't Control as having physical/chem processes will be eligible to obtain certification at a level no higher than the one they had on the said date without an exam.</p> <p>Total Systems CWS: 749 NTNCWS: 282</p> <p>Total Covered Systems² CWS: 749 NTNCWS: 282</p>	Yes - Case-by-case. The Board may rule to waive the examination of licensees certified in another State if the certification provisions are equivalent as determined by the Board. The waiver of the examination as provided in this section does not exempt the applicant from payment of the application fee.	SC Code of Laws § 40-23-10 - § 40-23-170, and the State Primary Drinking Water Regulations R.61-58 pursuant to § 44-55-30 - § 44-55-120 of the SC Code of Laws; SC Department of Labor Licensing & Regulation Environmental Certification Board Rules and Regulations	Yes - South Carolina Environmental Certification Board consists of 9 members appointed by the Governor.	Public Water Systems are classified by size, type, complexity, physical condition, source of supply, and treatment process. PWSs are divided into Groups as follows: Group I: Community Water <50 taps with no treatment; all CWSs that purchase potable water and do not treat water; all Noncommunity Water Systems; Group II: CWSs >50 taps well/spring water without treatment; Group III: All PWSs that use simple addition of chemical treatment for pH balance or disinfection; Group IV: all PWSs that use conventional treatment for ground or surface; Group V: all PWSs that use advanced treatment such as reverse osmosis or activated carbon filtration or that serve a population >200,000.

1. This column contains information on the certification board or equivalent agency in the State operator certification program.

2. The total number of covered systems refers to those systems that are currently required by State statute or regulation to have a certified operator. There are some discrepancies between the data we obtained from the States and the data in the Safe Drinking Water Information System (SDWIS). For national uniformity, we are using the SDWIS data in States where 100% coverage of CWS and NTNCWS applied.

State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
SC	<ul style="list-style-type: none"> Written exam (required for all levels except trainee) <p>Levels of Certification:</p> <p>1)Trainee--valid trainee permit and fee.</p> <p>2)Level D--hold valid trainee permit, complete D level exam, and 1 yr exp.</p> <p>3)Level C--hold D permit, pass C exam, at least 2 years exp.</p> <p>4)Level B--hold C permit, pass B exam, 3 yrs exp.</p> <p>5)Level A--hold B permit, pass A exam, 4 yrs exp.</p> <p>Total Number of Active Operators: 2,272</p>	<ul style="list-style-type: none"> Renewal period: annually (July) <p>CEUs required: 12 units per 2 years.</p> <p>An operator may renew his/her certificate without penalty for up to 3 months after expiration (through October). After 3 months and up to the following July, an operator may still renew with a late fee.</p>	<p>One year after the expiration of a certificate, the certificate becomes invalid and the operator must reexam in order to become recertified. Operators in this situation will be credited for experience.</p> <p>A certificate revoked for cause by the Board may be reinstated only by action of the Board.</p>	<p>Fees*:</p> <ul style="list-style-type: none"> Application: \$22 Exam: \$22 Renewal: \$22 Late Renewal: \$44 <p>*No fee shall exceed \$75.00 according to §40-23-80(E).</p> <p>Funding:</p> <p>Self-supporting program - all expenses of certification board shall be paid by funds collected by the board.</p> <p>Budget:</p> <p>\$250,000 (estimate)</p> <p>FTEs: approx. 2.5</p>	<p>Any willful violation of §44-55-80 is deemed a misdemeanor with a fine of < \$10,000 per day of violation, or imprisonment, or both. Any other violation of these provisions shall result in a civil penalty of < \$5,000 per day in violation. State may also seek injunctive relief.</p> <p>Violations are discovered through inspections for sanitary surveys (about once a year), or when bad samples come back.</p> <p>Agency: The SC DOH enforces the requirements of the system. The Dept. of Labor, Licensing, & Regulation enforces requirements of the certified operator.</p>	<p>Yes - Every 4 or 5 years the legislative audit council evaluates the program.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
South Dakota	SD Department of Environment and Natural Resources	<p>The following systems must have at least one certified operator:</p> <ul style="list-style-type: none"> • serving > 500 • where disinfection is required • surface water source <p>Total Systems CWS: 479 NTNCWS: 33</p> <p>Total Covered Systems² CWS: 366 NTNCWS: 8</p>	Yes - Certified operator from any State, country, territory with equal or higher experience and education standards for certification may be certified in SD (but the State, country or territory must allow reciprocity for SD certified operators).	South Dakota State law 1975, Chapter 34 of Environmental Protection under "Water Supply and Treatment System Operators," and Administrative Rules of South Dakota, Title 74, article 21.	<p>Yes - SD Board of Certification</p> <p>6-member board appointed by the Secretary of the Department, consisting of: 4 certified operators, 1 faculty member of an engineering college or university, and 1 municipal employee</p>	<p>Distribution (based on population)</p> <p>Class I = $\leq 1,500$ Class II = 1,500 - 15,000 Class III = 15,000 - 50,000 Class IV = $\geq 50,000$</p> <p>Treatment Plants (based on point system - classes I, II, III, IV).</p> <p>Point system based on population served, average daily flow, type of water treated, and type of treatment. Class IV is the highest.</p> <p>See Appendix A-17 for a complete description of the point system.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
SD	<ul style="list-style-type: none"> • $\geq 70\%$ on the class specific exam • Up to $\frac{1}{2}$ of experience may be substituted with education. <p>Class requirements are as follows:</p> <p><i>Class I:</i> High school (or GED) + 1 yrs experience. <i>Class II:</i> High school (or GED) + 3 yrs experience. <i>Class III:</i> 2 yrs of college + 4 yrs experience (at least 2 of which must be in Direct Responsible Charge (DRC)). <i>Class IV:</i> Bachelor's Degree and 4 yrs experience (at least 2 of which must be DRC).</p> <p>Total Number of Active Operators: 1,084</p>	<ul style="list-style-type: none"> • Renewal period: annually (contingent 10 Contact hours are received every 4 years) <p>certificates expire on 2/1 of every year</p> <p>Apply for renewal at least 30 days before expiration</p> <p>-- if apply < 2 years after expiration, submit application and a fee.</p>	<p>If operator applies >2 years after expiration, he/she must reapply, pay fees and take examination again.</p> <p>If a certificate is revoked, the operator must go through the Board which will decide if that operator may reexam and recertify.</p>	<p>Fees:</p> <ul style="list-style-type: none"> • Exam: Class I: \$5.00 Class II: \$7.00 Class III: \$9.00 Class IV: \$10.00 • certificate renewal: Class I: \$3.00 Class II: \$4.00 Class III: \$5.00 Class IV: \$6.00 <p>Funding: All fees go into a dedicated fund for operator certification to cover exams, board meetings, travel expenses, and other miscellaneous costs.</p> <p>Budget: \$6,000 (estimate)</p> <p>FTEs: 0.5 (includes water and wastewater)</p>	<p>Actions against an operator: Secretary of the Board may suspend or revoke certificate (after a hearing before the board).</p> <p>Actions against a system: Board will hold a hearing and recommend to the Department which procedures to take. The Dept. will inform the Attorney General if enforcement action must be taken.</p> <p>Violations are discovered through complaints and a general knowledge of who the current operators are in the field.</p> <p>Agency: SD Dept. of Environment and Natural Resources has jurisdiction to enforce against the operator and the system.</p>	No formal review.

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Tennessee	<p>Tennessee Department of Environment and Conservation</p> <p>Primary: Division of Fleming Training Center.</p> <p>Secondary: Divisions of Water Supply and Water Pollution Control.</p>	<p>All public water systems require a certified operator. Any person in direct charge of water treatment plant shall hold a certificate in a grade equal to or higher than the grade of the treatment plant, distribution facility, or collection system s/he operates.</p> <p>Total Systems CWS: 531 NTNCWS: 74</p> <p>Total Covered Systems² CWSs: 531 NTNCWSs: 74</p>	<p>Yes - Persons wanting to gain certification from other States, need to fill out a separate, notarized and signed application, pay a fee of \$25.00 and provide a copy of any verifying document in support of an application from another State. Application must be received by Secretary 60 days or more in advance of scheduled Board meeting date for consideration. If reciprocity is denied, applicant must submit a new application with fees for consideration for any future reciprocity requests.</p> <p>-certificate must be from State that meets same operator requirements in respective operator class.</p> <p>-must have an active certificate and be in good standing.</p>	Water Environment Health Act T.C.A. 68-221-901 through 68-221-915 and Rules of TNDEC Board of Certification for Water and Wastewater Operators: Chapter 1200-5-3	Yes - Board of Certification for Water and Wastewater Operators consisting of five members (current operators, university faculty, director of Division of Water Management) appointed by the Governor	<p>Water Treatment Plant Certifications are classified according to population served, type of treatment, and complexity of treatment. There are four Grades (I-IV) which is determined on a point system.</p> <p>See Appendix A-18 for a complete description of the point system.</p> <p>A classification for a "small water system" exists but is not a part of the point system.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
TN	<ul style="list-style-type: none"> Written examination <p>A Grade IV operator must have a bachelors degree in chemistry or related science and 12 months experience at Grade III or IV, or, have a high school or equivalent education and at least 5 yrs experience at a Grade III or IV level. For Grade I or II, the operator must be a high school graduate with at least 10 yrs. experience.</p> <p>A Grade III operator must have a high school education or equivalent and at least one year experience at a Grade I or II treatment plant.</p> <p>A Grade II operator must have a high school education or equivalent and at least one year experience at a Grade I or II treatment plant.</p> <p>A Grade I operator must have a high school education or equivalent and at least one year experience at a Grade I treatment plant.</p> <p>These rules are currently being amended. The above information reflects current rules. (Proposed amendments effective 7/1/98)</p> <p>Total Number of Active Operators: 2,834</p>	<ul style="list-style-type: none"> Renewal period: annually (certificates expire January 31 each year). <p>All operators must have 5 contact hours (c.h.) per continuing education period.</p> <p>1 Continuing Education period = 3 yrs</p> <p>An operator may renew his/her certificate until June 30 with payment of a \$50 late fee.</p>	<p>After June 30, an operator wishing to renew his/her certificate must reapply and reexamine.</p> <p>An operator whose certificate is revoked shall be ineligible to again apply for certification as an operator within one year from the date the revocation becomes final.</p>	<p>Fees:</p> <ul style="list-style-type: none"> application: \$25 reciprocity certificate: \$25 renewal: \$20 late renewal: \$50 in addition to renewal fee. <p>Funding:</p> <p>All fees are paid to the State treasury. With Governor's approval State can allot funds for administration of the program.</p> <p>Receive ≈\$103,000 in funds per year (covers most of costs incurred for operator certification program)</p> <p>FTEs: about 1.5</p>	<p>Commissioner of Department may revoke or suspend an operator's certificate.</p> <p>Any municipality, utility district, corporation, or person(s) violating any provisions or rules and regulations thereunder commits a Class C misdemeanor (each day in violation = separate offense). Civil penalties may include: ≤\$10,000/day for each day in violation.</p> <p>The Division of Water Supply tracks compliance with regulations by sending frequent surveys to operators to verify that all systems have operators that are certified at the level of the facility.</p> <p>Agency: TN Dept of Environment and Conservation has jurisdiction in enforcement actions against operators and systems.</p>	<p>No. There is no formal review process but the regulations and certification exam are always subject to change.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Texas	Texas Natural Resource Conservation Commission - Compliance Support Division	<p>Cert. required for person conducting daily, on-site activities for a public water system .</p> <p>PWS Groundwater (GW): <250 connections, Grade D operator required. >250 and ≤1,000 connections C-GW operator required. >1,000 connections, 2 C-GW operators required.</p> <p>GWUDI: require C-GW + additional training OR C-SW.</p> <p>PWS Surface Water (SW): require 1 B-SW operator or 1 C-SW operator who has completed 20 hr. Water Laboratory Course (each shift). -If SW treatment plant has monitors & alarms with automatic plant shutdown, certified operator does not have to be on site.</p> <p>PWS Distribution: <250 connections, D operator required. >250 and ≤1,000 connections, C-distr. operator required. >1,000 connections, 2 C-distr. operators required.</p> <p>Total Systems CWS: 4,507 NTNCWS: 797</p> <p>Total Covered Systems² CWS: 4,507 NTNCWS: 797</p>	<p>Yes - with bordering States</p> <p>Remaining States on an individual basis -requirements must be equivalent to TX requirements -must have passed exam in other State for cert. -other State must have reciprocity with TX</p>	<p>TX Health & Safety Code, Chapter 341</p> <p>Texas Administrative Code - Title 30, Chapter 290.46(e) (called for by Chapter 341 of Health & Safety Code)</p>	<p>Yes - Advisory Committee</p> <p>Advises TNRCC on: -direction of activities -validation of exams</p>	<p>Classification of facility based on # of connections and complexity. Within each class, facilities are divided into the following categories: surface water, groundwater and distribution.</p> <p>For <250 connections, a Grade D operator certificate is valid.</p> <p>For >250 and <1,000 connections, an operator with Grade C or higher certificate is required.</p> <p>For >1,000 connections, at least 2 Grade C operators are required.</p> <p>All surface water systems must have an operator with a C or higher level certification.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
TX	<ul style="list-style-type: none"> • $\geq 70\%$ on written exam • Min. experience: <i>Grade D</i> = 40 hrs training credit OR high school + 20 hrs training credit <i>Grade C</i> = high school + 2 yrs experience + 60 hrs training credit <i>Grade B</i> = high school + 5 yrs experience + 100 hrs training credit OR BS (in chem., bio., bacteriology, or engineering) + 1 yr experience + 100 hrs training credit <i>Grade A</i> = high school + 8 yrs experience + 160 hrs training credit OR BS (same as above) + 5 yrs experience + 160 hrs training credit OR MS (in chem, bio, bacteriology, or engineering) + 4 yrs experience + 160 hrs training credit Total Number of Active Operators: Data not available. Total number of certificates (operators may hold >1 certificate): 11,838.	<ul style="list-style-type: none"> • Renewal period: <i>Grade D</i> = 2 yrs <i>Grade C</i> = 3 yrs <i>Grade B</i> = 5 yrs <i>Grade A</i> = 8 yrs Hours to be earned during life of certificate: <i>Grade D</i> = 20 hrs <i>Grade C</i> = 30 hrs <i>Grade B</i> = 50 hrs <i>Grade A</i> = 80 hrs	A certificate that is not renewed within 30 days following the expiration date will be considered invalid. A valid certificate can only be obtained by submitting a new application with appropriate application fee and receiving a passing score on the examination. Information on recertification of revoked certificates not available.	Fees: • Application/ Renewal Fees: <i>Grade D</i> = \$20 <i>Grade C</i> = \$30 <i>Grade B</i> = \$50 <i>Grade A</i> = \$80 Funding: All fees go into general revenue fund. Fees contribute to, but do not cover program budget. Additional funding comes from the State general fund. Budget: \$164,887 FTEs: 6.0 (including temp. workers).	TNRCC can revoke or suspend an operator's certificate. Information not available on actions against systems. Information on how violations are discovered is not available. Agency: Texas Natural Resources Conservation Commission has jurisdiction on enforcement actions against operators and systems.	No. The only self assessment that takes place is an informal one with the board.

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Utah	Drinking Water Board appointed by the Governor for promulgation, interpretation of Drinking Water Rules in Utah. Department of Environmental Quality - Division of Drinking Water works for Board.	<p>A CWS distribution or treatment plant manager is required to be certified at the grade of waterworks system with an appropriate unrestricted certificate. All other direct responsible charge operators shall be certified at an equivalent or not more than one grade lower. Where a 24-hour shift operation is used or required, one operator per shift must be certified at not less than one grade below the classification of the system operated.</p> <p>Operator definition - person who operates, repairs, maintains and is directly employed by a PWS.</p> <p>Direct responsible charge - active, on-site charge and independently makes decisions during normal operation.</p> <p>PWSs serving less than 800 people are exempt from having certified operators. However, 1/3 of these facilities are operated by certified persons.</p> <p>PWSs with more than 800 people served and public surface water treatment plants are required to have certified operators.</p> <p>Total Systems CWS: 429 NTNCWS: 58</p> <p>Total Covered Systems² CWS: 429 NTNCWS: 2 - 3</p>	Yes-The Board upon recommendation from the Commission, may waive examination of applicants holding a valid certificate or license issued in compliance with other State certification plans having equivalent standards, and grant reciprocity.	Section 19-4-104 and Required Certification Rules for Water Supply Operators: R309-301-1 through R309-301-18	<p>Yes - The Operator Certification Commission consisting of 7 members representing: (a) a town with pop. < 10,000; (b) a Grade III unrestricted certified distribution operator; (c) a Grade III unrestricted certified treatment plant operator; (d) municipal water supply mgmt.; (e) civil or environment. Engineering dept. of a Utah university; (f) water supply trainers; and (g) the drinking water board. All members appointed by the drinking water board which is appointed by the Governor</p>	<ul style="list-style-type: none"> Classifications made by either a point system or on a population-served basis (whichever results in a higher classification). <p>Distribution systems: <i>Grade 1:</i> ≤1,500 (pop served), ≤10 points (pts) <i>Grade 2:</i> 1,501 - 5,000, 10 - 25 pts <i>Grade 3:</i> 5,001 -15,000, 26 - 50 pts <i>Grade 4:</i> > 15,000, >51 pts</p> <p>Treatment systems: <ul style="list-style-type: none"> Population served = same breakdown <i>Grade 1:</i> ≤40 pts <i>Grade 2:</i> 41 - 65 pts <i>Grade 3:</i> 66 - 90 pts <i>Grade 4:</i> ≥ 91 pts</p> <p>See Appendix A-19 for a complete description of the point system.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
UT	<ul style="list-style-type: none"> • ≥70% on written exam • Min. experience (Distribution and Treatment Systems): <i>Grade 1:</i> 1 yr experience <i>Grade 2:</i> 3 yrs experience without high school OR high school + 2 yrs experience <i>Grade 3:</i> 6 yrs without high school, 3 of these years must be direct responsible charge OR high school + 4 yrs experience with 2 of these years direct responsible charge, OR Associate's + 2 years experience with 1 year direct responsible charge. <i>Grade 4:</i> 10 yrs experience without high school with 5 years of this direct responsible charge, OR high school + 8 yrs experience with 4 of years direct responsible charge, OR Associate's + 6 years experience with 2 years direct responsible charge, OR BA + 4 years experience with 2 years direct responsible charge. <p>Total Number of Active Operators: 1,207</p>	<ul style="list-style-type: none"> • Renewal period: triennially <p>CEUs required in a 3 yr period: <i>Grade 1:</i> 2 <i>Grade 2:</i> 2 <i>Grade 3:</i> 3 <i>Grade 4:</i> 3</p> <p>1 CEUS = 10 contact hrs of participation in & successful completion of an organized continuing education experience.</p>	<p>A lapsed certificate may be renewed by payment of the reinstatement fee and either passing an examination at the discretion of the Secretary to the Commission or, considering the training, experience, education, and progress made since the certificate lapsed; reinstatement may be granted without an examination.</p> <p>Recertification of revoked certificate determined by Secretary of Commission with recommendation of appeals board.</p>	<p>Fees:</p> <ul style="list-style-type: none"> • Application: \$20.00 • Certification: \$70.00 (one time fee, price is application fee + examination fee) • Renewal: \$50.00 • Examination: \$50.00 • Recertification for failed examination: \$50.00 <p>Funding: Dedicated fund within States' general fund.</p> <p>Budget: Data not available.</p> <p>FTEs: 1.35 Note: Two people spend 50% and 75 %, respectively, on application, examination and certification processes. Local Health Departments devote 12 people to administer exams in 12 regions for 3 hour exams twice per year. Inspections are done by State Sanitary Survey people. All staff members split time with operator certification program and other programs.</p>	<p>After appropriate consideration by the Commission, cases of non-compliance will be referred to the Drinking Water Board for appropriate enforcement action.</p> <p>Inspections are also done by State Sanitary Survey staff.</p> <p>Agency: Department of Environmental Quality - Division of Drinking Water has jurisdiction on enforcement actions against operators and systems and inspection of facilities.</p>	<p>Yes. Four times a year, the Board meets. Also, once every three years, UT sponsors an "exam validation workshop." (Discuss content of op.cert. exam and its validity with 5-10 recognized operators from each grade)</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Vermont	Secretary of the Vermont Agency of Natural Resources or Secretary's designee	<p>All public water systems (community; non-transient, non-community; and transient non-community) serving >10 service connections or >25 people shall be operated by at least one certified operator and a designated alternate* of the appropriate class. The class of the certificate required is dependent upon the classification of the PWS.</p> <p>* The designated alternate can be a visiting certified operator.</p> <p>Total Systems CWS: 349 NTNCWS: 102</p> <p>Total Covered Systems² CWS: 461 NTNCWS: 198</p>	Yes - Case-by-case basis	10 V.S.A. Chapter 48, Ground Water Protection, Chapter 56, Public Water Supply; State of Vermont, Subchapter 21-12 of Environmental Protection Rules, Chapter 21, Water Operator Certification Regulations for All Public Water Systems (revised July 15, 1996).	<p>Yes - 9 member board consisting of:</p> <p>(1) representative of a large surface water plant, (1) rep. of a Class 3 facility, (1) rep. of New England Rural Water Assoc., (3) State reps (1) independent surface water expert, (1) engineer (private sector), (1) wastewater rep.</p>	<p>Public Water Systems classifications are as follows:</p> <p><i>Class 1:</i> Groundwater transient, non-community (TNC) systems using chlorine and ion exchange. <i>Class 2:</i> Public community* using chlorine and ion exchange. <i>Class 3:</i> All systems using chemical/physical processes other than chlorination. <i>Class 4:</i> Surface water systems using filtration techniques. --subclasses A, B, C based on population served: A - serving 25 - 500 B - serving 501 - 3,300 C - serving >3,300</p> <p><i>Class D:</i> Public community systems. Distribution only.</p> <p>*Public community water systems are those which serve ≥ 10 service connections used by year round residents or regularly serves ≥ 25 year-round residents</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
VT	<ul style="list-style-type: none"> • Successful completion of Class specific written examination. • Education may be substituted for experience for classes 2, 3, 4A, 4B, 4C, & D. <p><i>Class 1:</i> Exempt from exam. No educational requirement and no operating experience necessary.</p> <p><i>Class 2:</i> No educational requirement and 1.5 years experience.</p> <p><i>Class 3:</i> High school diploma or GED and 1.5 years experience.</p> <p><i>Class 4A:</i> High school diploma or GED and 2 years experience.</p> <p><i>Class 4B:</i> High school diploma or GED and 2.5 years experience.</p> <p><i>Class 4C:</i> High school diploma or GED and 3 years experience.</p> <p><i>Class D:</i> No education requirement and 1 year experience.</p> <p>To move to a higher class, operator must pass exam in that class and have 6 mo. OIT experience for each class upgrade.</p> <p>Total Number of Active Operators: 678</p>	<ul style="list-style-type: none"> • Renewal period: every five years. All but Class 1 are required to either retest or have continuing education (CEUS). <p>CEUS: <i>Class 1:</i> encouraged to attend at least 8 hours in each 5 year period. <i>Class 2:</i> shall attend 10 hours. <i>Class 3, 4, and D:</i> shall attend 20 hours.</p> <p>Within one year of expiration, an operator may renew his/her certificate with a late fee.</p>	<p>Any certificate not renewed shall be expired. If not renewed within one year of expiration, the operator must reexam.</p> <p>Any order from the Secretary to revoke or suspend a certificate shall provide specifications and a time table for recertification.</p>	<p>Fees: Certification and Renewal: Class 1: \$30 Class 2,3,4,D: \$60 Late renewal: \$10 *Examination: \$35</p> <p>*Examination fees go to ABC for the exam service provided for Classes 3, 4, and D.</p> <p>Funding: The remaining fees go toward the program. Funding of the program is supplemented by State and Federal funds.</p> <p>Budget: Data not available.</p> <p>FTEs: 0.75</p>	<p>The Secretary may suspend or revoke a certificate granted under this section after notice and opportunity to be heard if the Secretary finds that the certificate holder has submitted false information, violated any condition of the certificate, or violate any statute, rule, or order related to 10 VSA, Chapter 56. The applicant may appeal as provided in 10 VSA, Section 1680.</p> <p>Currently, enforcement is not in place.</p> <p>Agency: The Agency of Natural Resources handles enforcement against operators. Information on the Agency handling enforcement against systems was not available.</p>	No formal review.

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State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Virginia	<p>Board issues licenses.</p> <p>DEQ oversees wastewater works</p> <p>Department of Health oversees waterworks</p> <p>Dept of Professional Occupational Regulation oversees certification only of operators.</p>	<p>All operators (person in responsible charge with duties including testing/evaluation and authority to operate/modify the operation of waterworks operations)</p> <p>PWS operators must be certified at least at the level of the facility or plant.</p> <p>Total Systems CWS: 1,527 NTNCWS: 789</p> <p>Total Covered Systems² Data not available.</p>	No - The Board has not determined any State's requirements to be equivalent to VA standards.	<p>Code of Virginia: Title 54.1-2300.</p> <p>Board for Waterworks and Wastewater Works Operators Rules and Regulations</p>	<p>Yes - Board for Waterworks and Wastewater Works Operators (7 members with a term of 4 years)</p> <p>Representatives consist of (according to Code of VA Title 54.1-2301) (a) the Director of the Office of Water Programs of the State Department of Health, or his designee, (b) the Executive Director of the State Water Control Board, or his designee, (c) a currently employed waterworks operator having a valid license of the highest classification issued by the board, (d) a currently employed wastewater operator having a valid license of the highest classification issued by the board, (e) a faculty member of a state university or college whose principal field of teaching is management or operation of waterworks or wastewater works, (f) a representative of a waterworks owner, (g) a representative of a wastewater works owner. (no owner can have more than 1 representative on the board)</p>	<p><i>Class V</i>: no treatment other than chlorine disinfection</p> <p><i>Class IV</i>: some treatment (except fluoridation), serving <5,000 persons</p> <p><i>Class III</i>: treatment facilities, serving ≥5,000</p> <p><i>Class II</i>: treatment facilities, serving >5,000 <50,000</p> <p><i>Class I</i>: treatment facilities, serving ≥50,000</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
VA	<ul style="list-style-type: none"> Written exam Min. experience: (class-specific experience = #yrs. of experience needed at that type of facility) <p><i>Class V:</i> 1 yr class V facility experience, OR high school + 6 months class V exp., OR BS + 6 months class V exp.</p> <p><i>Class IV:</i> 1 yr class IV exp., OR high school + 6 months class IV exp. OR BS + 6 months class IV exp.</p> <p><i>Class III:</i> Class IV license + 4 yrs class IV exp., OR high school + 2 yrs class IV exp., OR BS + 1 yr class IV exp.</p> <p><i>Class II:</i> Class III license + 7 yrs (3 yrs at class III) exp., OR high school + Class III license + 4 yrs (2 yrs. at class III) exp., OR BS + 1 ½ yrs (6 months at class III) exp.</p> <p><i>Class I:</i> Class II license + 10 yrs (4 at class IV, 3 at class III, and 3 at class II) exp., OR high school + 6 yrs (2 at class II) exp., OR BS + Class II license + 2 ½ yrs (1 at class II) exp.</p> <p>Approved education may be substituted for required experience.</p> <p>Total Number of Active Operators: 1,950</p>	<ul style="list-style-type: none"> Renewal period: Licenses expire on the last day of February every odd-numbered year. Renewal notices are mailed by the Dept. of Commerce. <p>Return renewal notice and fee. If after 30 days, submit renewal notice, fee and late fee.</p>	<p>Procedures for renewal after certification expires: > 1 year after expiration, must reapply, take exam, pay fee.</p> <p>The Board has the discretion to determine reinstatement of revoked licenses.</p>	<p>Fees:</p> <ul style="list-style-type: none"> Application for license: \$65 Application for reexamination: \$45 License renewal: \$55 Failure to renew license with 30 days of exp.: \$55 <p>Funding: Fees fund the program.</p> <p>Budget: \$202,000 (water and wastewater) Water budget (≈40% of total) ≈\$80,800</p> <p>FTEs = Information not available.</p>	<p>The Board can revoke or suspend an operator's license. Also, it can fine the operator.</p> <p>Violations of any statute or regulation related to unlicensed conduct is a Class 1 misdemeanor (against the facility). The third or any subsequent conviction in a 6-month period is a Class 6 felony. Also, the State can initiate court proceedings to enjoin the violator stop the unlawful activity.</p> <p>Dept of Health conducts routine inspections of water works facilities.</p> <p>Agency: The Board for Waterworks and Wastewater Works Operators has jurisdiction in enforcement actions against operators. Information not available on Agency presiding over systems.</p>	<p>No. The Dept. does conduct workshops to analyze and evaluate exam questions.</p>

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State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Washington	Department of Health, Division of Drinking Water	<p>An operator is the person responsible for the active daily operation of the facility.</p> <p>1 certified operator required for: Group A water systems serving ≥ 100 service connections or serve < 100 service connections but have been determined to be a significant noncomplier</p> <p>An additional certified operator required for: PWS using surface water source or GWUDI.</p> <p>An additional certified operator also required for: shift work or responsibility for a major segment</p> <p>Certified operator may provide services to > 1 system.</p> <p>Exceptions: (RCW70.119.040) 1) Industrial water supply systems which do not supply water to residences for domestic use. 2) Preparation, distribution or sale of bottled water.</p> <p>Total Systems CWS: 2,335 NTNCWS: 292</p> <p>Total Covered Systems² CWS: 750 NTNCWS: 0</p>	Yes - from a State or province which has requirements "substantially" equivalent to WA may be certified in WA without having to take an exam. This includes all States that have reciprocity with ABC as well as others on a case-by-case basis.	Chapter 70.119.010 - 70.119.900 RCW and Washington Administrative Code Chapter 246-292 - Water Works Operator Certification	Yes - Advisory only Secretary of DOH can create/establish ad hoc advisory committee to obtain advice and technical assistance.	<ul style="list-style-type: none"> Distribution facilities are classified according to population served <i>Group 1:</i> $\leq 1,500$ <i>Group 2:</i> 1,501-15,000 <i>Group 3:</i> 15,001- 50,000 <i>Group 4:</i> $> 50,000$ <p>A point system is used for classification of the Purification Plants.</p> <p>See Appendix A-20 for a complete description of the point system.</p> <p>**A groundwater supply with only chlorination is considered a distribution system, not a purification plant.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
WA	<ul style="list-style-type: none"> Basic Treatment Operator (BTO) Backflow Assembly Tester (BAT) Cross Connection Control Specialist (CCS): high school (H.S.) + 3 months experience (class 1); H.S. + 3 yrs experience (class 2) Water Distribution Specialist (WDS): H.S. + 3 months (OIT); H.S. + 1 yr (class 1); H.S. + 3 yrs (class 2) Water Treatment Plant Operator (WTPO) or Water Distribution Mgr. (WDM): H.S. + 3 months (OIT); H.S. + 1 yr (class 1); H.S. + 3 yrs (class 2); H.S. + 2 yrs college + 4 yrs exp. (class 3); H.S. + 4 yrs college + 4 yrs exp. (class 4) <p>**For levels 2-4, substitutions may be made for education and experience. A minimum of ½ of water treatment experience must be in a water treatment facility.</p> <p>Total Number of Active Operators: 2,914</p>	<ul style="list-style-type: none"> Renewal period: annually (on or before Jan. 1) Requirements (WDS, WDM, WTPO, CCS): Demonstration of professional growth: minimum of 3 CEUs (1 CEUS = 10 contact hrs of participation in & successful completion of an organized continuing education experience) (BAT, BTO): Must pass practical and written exam. -- Advance through exam within the same class to a higher level. -- Achieve certification through exam in appropriate classification. certificate temporarily valid two months after expiration (submit renewal fee and late fee) 	<ul style="list-style-type: none"> Procedures for renewal after certification expires: if > 2 months after expiration, must reapply and retest. <p>If a certificate is revoked the Department may require that the operator wait one year prior to reapplying and reexamining.</p>	<p>Fees:</p> <p>Operator</p> <ul style="list-style-type: none"> Application: \$30 - \$50 (based on operator type) Reapplication (for failed exam): \$25 Renewal: \$25 Late fee: \$25 Reciprocity fee: \$100 <p>System</p> <ul style="list-style-type: none"> Annual certification (based on system size): \$75 - \$450 Temporary certification: \$50 <p>Funding:</p> <p>*Self-supporting program - All fees go in to a dedicated fund for the administration of operator certification (called the "waterworks operator certification account")</p> <p>Budget:</p> <p>**Contract out review of professional growth records and the evaluation and assignment of CEUs - \$54,000/year for the last 2 years.</p> <p>\$252,000 = annual budget for administration of the program (staffing, benefits, overhead, etc.), does not include any training costs.</p> <p>FTEs: 2.5</p>	<p>Any 1 or combination of the following procedures:</p> <ul style="list-style-type: none"> written notice, prosecution as a criminal misdemeanor + ≤\$100/offense (each month constitutes a separate offense), civil penalties up to \$5,000/day other legal action <p>Secretary may revoke certificates. If revoked, unable to recertify for 1 year after revocation order.</p> <p>Violations are tracked through a data base system that monitors compliance (part of the operating permit criteria for operating a water system).</p> <p>Agency: WA Department of Health handles enforcement actions against the operator and the system.</p>	No formal review.

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State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
West Virginia	Department of Health Director of DOH determines time and place of exams.	<p>All PWSs must have a full-time certified operator.</p> <p>Class II, III, and IV water systems shall have a certified operator present at the treatment facility anytime water is undergoing treatment. In class III and IV systems, this operator shall not be more than one classification lower than the system classification. Class II groundwater systems may be operated by a Class I operator provided the system treats only ground water and the chief operator is certified at Class II. Class II surface water systems must be operated by Class II operators.</p> <p>Operator definition - individual who performs practical work and applies technical knowledge and skill to treat, test and distribute drinking water.</p> <p>All exceptions shall be issued in writing to the owner by the director. Class I-D certified operators shall be restricted to operating the specific Class I-D PWS.</p> <p>Facilities who add fluoride shall have certified fluoride operator.</p> <p>Total Systems CWS: 648 NTNCWS: 219</p> <p>Total Covered Systems² CWS: 648 NTNCWS: 219</p>	<p>Yes- following requirements:</p> <p>1) accepted offer for full-time employment as water system operator in WV</p> <p>2) passed certification exam of equivalent or greater standard to WV exam.</p> <p>3) meets educational and work experience requirements.</p>	WV 64 CSR 4 Legislative Rules Title 64 Chapter 16, Article 1, Section 7(2). State Code 16-1-9(a).	Yes - West Virginia America Water Works Association and WV Rural Water Advisory.	<p>Classifications (I-D, I, II, III, and IV) based on point system and population served.</p> <p>I-D: total pts= 1-20 pop. served= <500</p> <p>I: total pts= 21-30 pop. served= 501-1500</p> <p>II: total pts= 31-55 pop. served= 1501-15000</p> <p>III: total pts= 56-75 pop. served= 15000-50000</p> <p>IV: total pts= >76 pop. served= >50001</p> <p>See Appendix A-21 for a complete description of the point system.</p>

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State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
WV	<ul style="list-style-type: none"> Written exam (passing is >70%) Min. experience: <ul style="list-style-type: none"> ID: 8th grade + 3 months experience I: high school + 1 yr experience II: high school + 3 yrs experience III: high school + 90 CEUs + 5 yrs experience IV: high school + 180 CEUs + 6 yrs experience (1 CEUS = 10 contact hrs of participation in & successful completion of an organized continuing education experience) *advanced education may substitute for some experience <p>Operators who add fluoride shall have certification for fluoride.</p> <p>Total Number of Active Operators: Data not available. Total number of certificates: 2,500 (operators may hold multiple certificates)</p>	<ul style="list-style-type: none"> Renewal period: biennially 	<p>Lapsed certificate: May be recertified based on Director's review. Director may require reexamination if operator has not been actively engaged in water supply treatment operations for 2 years.</p> <p>Revocation: An operator must wait a time period of 2 years before reapplying and reexamining and have a review by the Director to determine whether or not deficiencies leading to revocation have been corrected.</p>	<p>Fees:</p> <ul style="list-style-type: none"> No fees <p>Funding: Appropriations from the general fund</p> <p>Budget: \$65,000 /yr</p> <p>FTEs: 1.8</p>	<p>Any person (system, operator, etc) who is found in violation of these or other related rules is a misdemeanor, punishable by a fine not greater than \$200, and/or a prison term not more than 30 days. "Each day's failure to comply. . shall constitute a separate offense."</p> <p>Information on how violations are discovered is not available.</p> <p>Agency: The Director of the WV Department of Health has jurisdiction on enforcement actions against operators and systems.</p>	No formal review.

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State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Wisconsin	Wisconsin Department of Natural Resources	<p>All municipal water systems are required to have a certified operator who is responsible for plant operations. Public water treatment facilities have one operator-in-charge for each subclass that has been issued a certificate. NTNCWS do not require a certified operator.</p> <p>Subclass S waterworks shall have a certified operator with Grade T or 1 in subclass S on duty at all times.</p> <p>Operators may be in responsible charge of more than facility. Limited restrictions for surface water facilities determined by Department.</p> <p>Total Systems CWS: 1,166 NTNCWS: 1,053</p> <p>Total Covered Systems² CWS: 608 NTNCWS: 0</p>	Yes - Certificates may be issued for comparable certification, without examination, in a comparable grade and subclass to any person who holds a current certificate in any State, territory, or possession of the United States, or any country, if in the judgement of the department, the person requesting comparable certification has met the equivalent of the provisions of this subchapter in examinations and operational experience.	Wisconsin Statutes Section 281.48(3) and Wisconsin Administrative Code Chapter NR 114.01 - 114.25	No	<p>All public waterworks fall under "Class 1" and 1 or more of the following subclasses:</p> <p>G: source= groundwater, Z: providing zeolite softening or specific contaminant removal by resins, I: iron removal by oxidation and filtration, L: treatment by lime-soda ash processes, S: source= surface water, D: containing a distribution system, V: special treatment (e.g.: air stripping, GAC, etc.)</p>

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2. The total number of covered systems refers to those systems that are currently required by State statute or regulation to have a certified operator. There are some discrepancies between the data we obtained from the States and the data in the Safe Drinking Water Information System (SDWIS). For national uniformity, we are using the SDWIS data in States where 100% coverage of CWS and NTNCWS applied.

State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
WI	<ul style="list-style-type: none"> • ≥75% on written exam (all operators) • There are 2 grades (T & I) and 7 subclasses of waterworks operators: <p><i>Grade T:</i> Pass written exam.</p> <p><i>Grade I:</i> Completion of Grade T requirements plus one year of satisfactory subclass specific experience.</p> <p>Operator subclasses are same as facility subclasses.</p> <p>Total Number of Active Operators: approx. 1700</p>	<ul style="list-style-type: none"> • Renewal period: triennially • Successful completion and documentation of CEUs: Grades T and I= 18 hrs/3 yr OR 12 hrs/2 yr *Operator-in-charge (for surface water systems only)=24 hrs/ 3 yr <p>Operators with two year renewal period will end in October 1997. These operators will be on three year renewal program.</p>	<p>A person who fails to renew a certificate one year after the expiration date of the certificate will have to apply to take the necessary examinations for a new certificate.</p> <p>Revocation of certificate: Each operator who has certificate revoked is handled individually by Department of Natural Resources</p>	<p>Fees:</p> <ul style="list-style-type: none"> • Exam: \$25 • Renewal: \$45 • Late renewal: \$25 • Comparable certification: \$100 <p>Funding: Funds for program taken from State's general fund.</p> <p>Budget: Data not available.</p> <p>FTEs: 1.0 (plus enforcement people who work on other enforcement issues)</p>	<p>"All suppliers of water for municipal water systems shall comply with the certified operator requirements in s. NR 108.06(2) and ch. NR 114."</p> <p>Annual inspections are conducted at all municipal water systems.</p> <p>Operators may have their certification revoked but usually only in a criminal case.</p> <p>Agency: The Department of Natural Resources has jurisdiction on enforcement actions against operators and systems and may, on its own discretion, investigate a public written complaint.</p>	<p>No. Self assessment is done informally on an ongoing basis.</p>

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

State	Implementing Agency	Coverage	Reciprocity	Authorization	Certification Board ¹	Classification of Systems/Facilities
Wyoming	Wyoming Department of Environmental Quality - Water Quality Division	<p>Any water or distribution systems with ≥ 20 service connections must have one chief operator* certified to the level of the facility and one back-up operator. (the back-up operator may be certified one level below the level of the facility) Each facility must have one certified operator per shift either on-site or within one hour traveling distance.</p> <p>*An operator is any individual having primary hands-on responsibility for the operation of each plant or system.</p> <p>Total Systems CWS: 255 NTNCWS: 100</p> <p>Total Covered Systems² Data not available - system data collected according to treatment</p>	Yes - The administrator of the Department shall have the authority to enter into a reciprocal agreement with any other State, association or Canadian province regarding operator certification. Such agreement shall be made only after the administrator has determined that the certification requirements of that State, association, or province are \geq Wyoming.	<p>Wyoming Department of Environmental Quality, Water Quality Regulations, Chapter V, W.S. 35-11-101 through 1207</p> <p>*currently revising regs</p>	No	<p>Classification is based on point system:</p> <p><u>Combined Water & Distribution Systems:</u> Class II: 5 or 6 points. Class I: 4 points or less.</p> <p><u>Treatment Plants:</u> Class IV: 8 points or more. Class III: 6 or 7 points. Class II: 5 points or less.</p> <p>See Appendix A-22 for a complete description of the point system.</p>

1. This column contains information on the certification board or equivalent agency in the State operator certification program.

2. The total number of covered systems refers to those systems that are currently required by State statute or regulation to have a certified operator. There are some discrepancies between the data we obtained from the States and the data in the Safe Drinking Water Information System (SDWIS). For national uniformity, we are using the SDWIS data in States where 100% coverage of CWS and NTNCWS applied.

State	Classification of Operators and Requirements	Certificate Renewal	Recertification Requirements	Resources	Enforcement of Certified Operator Requirement	Program Review ¹
WY	<ul style="list-style-type: none"> • Successful completion of class specific exam provided by administrator (Level I, II, III, IV). • CEUS (Contact Hours): Experience can be substituted for education. <p>Total Number of Active Operators: Data not available.</p>	<ul style="list-style-type: none"> • Renewal period: triennially • Contact hours must be earned during the 3 years previous to certification expiration. Contact hours are level-specific as follows: <i>Level I:</i> 14 hrs. <i>Level II:</i> (distribution and collection): 14 hrs. <i>Level II:</i> (treatment): 21 hrs. <i>Level III:</i> 28 hrs. <i>Level IV:</i> 28 hrs. 	<p>An operator who has not renewed their certificate after the expiration date will have to reapply to take the class specific examination.</p> <p>If an operator's certification is revoked, that person may reapply for a new examination after 1 year.</p>	<p>Fees:</p> <ul style="list-style-type: none"> • No fees <p>Funding: All funding for the program comes from the State general revenue fund.</p> <p>Budget: Data not available.</p> <p>FTEs: 0.5 (includes water, wastewater and collection)</p>	<p>If a municipality or non-municipal public water supply is unable to comply with these regulations, the administrator will negotiate a schedule of compliance which shall State action(s) to be taken towards compliance and date(s) by which compliance will be obtained.</p> <p>Violations are generally discovered through the routine maintenance of the database.</p> <p>Agency: Enforcement handled by EPA - procedures usually only take place for very blatant violations.</p>	Yes - biannual review conducted of entire program.

1. Many States review sections of their program as necessary to revise regulations, evaluate a training program, etc. The question posed to States was: Is there a process in place to conduct a regular evaluation of the entire program?

APPENDIX

A-1

ALASKA

TABLE B
CLASSIFICATION RATING SYSTEM
COLLECTION AND DISTRIBUTION SYSTEMS
(By Range of Points)

System Type	I	II	III	IV
Wastewater Collection System	1-34	35-58	59-77	78 and above
Water Distribution System	1-34	35-58	59-77	78 and above

(e) To classify water distribution systems under (a) of this section, the department will use the following point system:

Item	Points
Size*	
Maximum population served, peak day	1 point per 10,000 or part
Finished water storage tank(s)	4
Circulating loops	
1 loop	10
2 - 4 loops	15
5 - 10 loops	20
Fire hydrants	4
Standby generators	6
Miles of water line	
0 - 2	2
2 - 10	4
10 - 100	6
Over 100	10
In-line disinfection	10
Gas chlorination	5
Hypochlorite chlorination	5
Iodine	5
Ultraviolet light	5
Valves	
Remote sensory	10
Automatic	8
Manual	4
Heat exchangers	10