



Utah Water Operator Certification Program

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FOREWORD

The Utah Drinking Water Board takes great pride in our program to certify operators of public drinking water systems. We hope that the information contained in this brochure assists you to understand and appreciate this basic public health program.

Utah's Operator Certification Program progressed from a *voluntary* to a *required* certification system in 1983 with the passage of amendments to the Utah Safe Drinking Water Act by the Utah Legislature. Rules concerning the certification of drinking water system operators within the state have been written, reviewed, revised, approved and implemented. These rules detail the requirements for, and the renewal of, certification.

The Utah Drinking Water Board appreciates the genuine hard work of the Operator Certification Commission, Division of Drinking Water staff, and the drinking water system operators and managers throughout Utah. Through our combined efforts, program implementation has been smooth and most impressive.

Thank you for your continued support of the program and your dedication to safe drinking water.

Utah Drinking Water Board

Utah Department of Environmental Quality, Drinking Water Board members:

*Paul Hansen, Chair
Betty Naylor,
Brett Chynoweth
Tage I. Flint
Roger G. Fridal
Brad Johnson
David L. Sakrison
David K. Stevens
Mark Stevens*

Operator Certification Commission

The Operator Certification Commission consists of seven members, which includes higher education representatives, a treatment operator, a distribution operator, a service district representative, a metropolitan water district representative, and a rural water system representative. These seven people make decisions such as what topics you, as an operator, will be tested on; when the test will be issued; how the program will be managed; how the program will operate; and how your exam fees and renewal fees will be spent to support the Operator Certification Program.

This commission is also the body that will hear all operator appeals, and will initiate any compliance activities for enforcement of the rules concerning certified operators. This commission also proposes rules, modifications, changes, and interpretation of the rules by which operators must abide. These rules, following the public hearing process, are actually adopted by the commission.

Operator Certification Commission members:

Mark Clark, Chair
James Callison
David Stevens
Brett Chynoweth
Quinn Fenton
Gary Larsen
Kim Dyches, Secretary
Mike Carlson

Key Features of the *Utah Operator Certification Program*

- The Utah Operator Certification Rules are established to promote use of trained, experienced, and efficient personnel in charge of public waterworks and to establish standards whereby operating personnel can demonstrate competency to protect the public health through proficient operation of waterworks facilities.
- Utah's Operator Certification Program is authorized by Section R309-105-11 of the Utah Public Drinking Water Rules. The rules state that "All community and nontransient-noncommunity water systems or any public system that employs treatment techniques for surface water or ground water under the direct influence of surface water shall have an appropriately certified operator. Refer to Section 309-300, Certification Rules for Water Supply Operators, for specific requirements."
- All public drinking water systems within the state of Utah have been assigned a complexity level (I, II, III, IV) and discipline (Treatment or Distribution) for the certification requirements of their operators. Any operator who makes independent decisions that affect the sanitary quality, safety, and adequacy of the water to their system will need to be certified to the grade of the system.
- Attendance at approved training such as workshops, seminars, classes, etc., is required for the renewal of certificates every three years.
- When an operator who is "in charge" of a drinking water system leaves that particular employment, the water system management or city/town council must notify the Operator Certification Program of this change within 10 days of the operator's departure, and replace the departing operator with an appropriately certified operator within one year.
- Should several neighboring drinking water systems wish to work together, they may hire a "regional operator" who may be "in charge" of several drinking water systems; thereby, reducing the costs of having a certified operator for each drinking water system.
- Should someone other than an operator, or an individual who is seeking employment with a Utah drinking water system (consultants, design engineers, salespersons, etc.), wish to become certified, they may take the certification examination and be issued a "Specialist Certificate." This certificate does not allow a "Specialist" to actually operate a drinking water system.
- The Operator Certification Program **ONLINE SERVICES** offer all forms and applications needed for examination, renewal, conversion, reciprocity, reinstatement, CEU submittal, and citizenship verification. Fees are payable online with a credit card.
- Online testing is available year-round by appointment only. Contact the Rural Water Association of Utah at 801-756-5123 for more information about fees and locations.

FOR MORE INFORMATION about this program, or to obtain copies of program forms, contact the Division of Drinking Water at **(801) 536-4200** or go to <http://drinkingwater.utah.gov>.

Which Certification Level Do You Need?

By Utah law, all community and nontransient noncommunity water systems or any public system that employs treatment techniques for surface water or ground water under the direct influence of surface water shall have an appropriately certified operator in direct responsible charge of the system. If you are an individual looking for employment

within the drinking water industry in the state of Utah, you may become certified as an operator. The only way to become certified is by taking a written exam, an internet online exam or an oral exam, or currently be certified as an operator in another state and apply for reciprocity. Certification is divided into two disciplines:

Distribution: There are five grade levels within the distribution discipline (small system, and I, II, III, IV)

Treatment: There are four grade levels within the treatment discipline (grades I, II, III, IV).

DETAILED BREAKDOWN OF EXAMINATION COVERAGE LEVELS

The examinations offered in water distribution and water treatment can be categorized according to the level of ability and competency of the operator expected to take these exams.

Small System - This level is for persons running a very small system with a population of 25-500. A volunteer or elected official usually runs these community or nontransient noncommunity systems.

Grade I - This level is for persons running small systems or slow-sand filter, reverse osmosis, or similar types of small treatment facilities.* The operator at this level in a larger system will generally be closely supervised.

Grade II - This level is for persons running a system with a population of 1,500 to 5,000, or small package-type treatment plants.* This corresponds to a "lead" level position. Through experience and education, the operator has demonstrated himself independently competent in most basic tasks.

Grade III - This level is for persons running a system with a population of 5,000 to 20,000 or medium size treatment plants.* This corresponds to a "journeyman" level position and the person generally supervises and instructs others. They can, without direct supervision, operate and maintain all but the most complex systems.

Grade IV - This level is for persons running a system serving over 20,000 population or large treatment plants or plants with complex operational processes.* This level corresponds to the highest level currently available under the Utah program. It identifies that the person has demonstrated knowledge of the most complex portions of water system operation. The Grade IV operator routinely supervises work crews or groups of work crews. Budget preparation is frequently a duty. It is assumed that a person certified at this level has enough experience and education to operate any other water system serving more than 20,000 people, in compliance with the Utah Public Drinking Water Rules and laws of the state of Utah.

*Treatment plants are rated on population served, degree of treatment, and complexity of operational processes.

The Exam Process

The operator certification exams are offered twice a year, in the months of April and November, at 16 sites throughout the state of Utah. To apply for participation within a written exam cycle, you need to submit an official exam application (*found at the end of this packet*) on or before the application deadline. The application must include the exam fee of \$100.00. Late applications and applications received without the required fee will not be accepted.

After your application is processed, you will receive a confirmation letter containing the exact date, time and location of the exam, and the items you will need to have with you during the exam.

The exam contains 100 multiple-choice questions. You will be tested on the following drinking water-related subjects:

- 1 Math
- 2 Operation & Maintenance
- 3 Pumps
- 4 Chemical Feed
- 5 Rules
- 6 Safety & Security

The Rural Water Association of Utah (RWAU) sponsors additional exams in the Spring and Fall in conjunction with their annual conferences. RWAU also offers online testing throughout the year by appointment only.

You will be given **three hours** to complete the exam. A score of **70** is required to pass the exam.

Certain experience requirements need to be met to obtain an "unrestricted" certificate. If you do not meet these requirements or if you are new in the drinking water industry, and you pass the exam, a "restricted" certificate will be issued. A "restricted" certificate signifies that you have passed the exam, but you lack the experience required by the Operator Certification Rules.

Upon successful completion of the exam you will be notified in writing of your score and will be issued a certificate indicating the discipline and grade level.

This certificate will be active for a three-year period. A renewal notice, in the form of a postcard, will be sent out three to six months prior to the expiration date of your certificate. The Utah Operator Certification Rules require that CEUs (*continuing education units*) be acquired by the operators to enable the certificate to be renewed (*see page 9*).

Utah's Restricted/Unrestricted Status

Unlike other states, Utah uses a unique system of marking an operator as Restricted or Unrestricted. This enables the "restricted" operator to gain work experience to test for and work at a higher grade level water system and become "unrestricted" without having to remain uncertified while doing so. Certain experience requirements need to be met to obtain an "unrestricted" certificate (*see page 12*).

If you do not meet these requirements, or if you are new in the drinking water industry, and you pass the exam a "restricted" certificate will be issued. A "restricted" certificate simply indicates that you have passed the exam, but lack the experience required by the Operator Certification Rules.

**Questions?
Division of Drinking Water
Operator Certification Program**

195 North 1950 West
P.O. Box 144830
Salt Lake City, UT 84114-4830

Phone: (801) 536-4200
Fax: 801-536-4211

<http://drinkingwater.utah.gov>

Nervous About the Certification Exam? We Can Help!

Training Information Online

There are several self-paced courses available, as well as formal organized training by the Rural Water Association, American Water Works Association, Utah Valley State College, Water Environment Association of Utah, and the Division of Drinking Water.

- A water operator training calendar is available online:

<https://teamup.com/ks8328e01c731a39e7>

- For more training information go to:

<http://www.deq.utah.gov/Certification/certification/drinkingwater/certsysoperator.htm>

Lending Library

A huge resource of knowledge in our Drinking Water Lending Library is available to the public. We have reference books, state rules documents, videos, CDs and DVDs for water system personnel and anyone preparing for the certification exam, all free to borrow and easy to check out.



Browse our catalogue here:

<https://DDWUtah.librarika.com>

Just call or come in to check something out!

If you have questions about training or training material, please contact the Operator Certification Program staff at (801) 536-4200 and we will gladly provide you many study resources.

What Are Continuing Education Units (CEUs)?

The Operator Certification Rules define a CEU as "...Ten contact hours of participation in, and successful completion of an organized and approved continuing education experience with responsible sponsorship, capable direction, and qualified instruction."

In order to ensure that the certified operators within the state remain abreast of the technological advances within our water industry, CEUs are required in order for the operators to renew their certificates. This includes operators holding "Grandparent" certificates.

The Operator Certification Rules specify the number of CEUs required per grade for renewal:

<u>Level of Certification</u>	<u>CEUs required within a three-year period</u>
Small System	2.0
Grades I and II	2.0
Grades III and IV	3.0

There is no distinction between distribution and treatment disciplines when it comes to CEUs, only

Earn CEUs Online

Certified operators can view online screencasts on the DDW Training Screencasts web page and take a short quiz to earn CEUs (<http://www.deq.utah.gov/Certification/training/drinkingwater/fieldservices.htm>). After you take the test you will get an email with the pass/fail result, the amount of CEUs awarded, and your operator certification number and system number. The Rural Water Association of Utah has made this online training possible. Open the RWAU web page at <http://www.rwau.net/trainingexams.html> and select Quizzes." You'll then have to create an account which will allow you to take the quizzes.

the grade of the certification the operator currently holds.

CEUs can only be acquired by attending pre-approved workshops, seminars, training, and classes which have been designed to keep the operator abreast of current water supply practices as well as all new changes within the regulations and industry standards. An attendance roster from these workshops is sent to the Operator Certification Program for entry into the computer base for tracking purposes.

Upon receiving an "application for renewal," the Division of Drinking Water's computer is checked to make sure enough CEUs have been acquired by the operator to enable him to renew his certificate. If that operator lacks sufficient CEUs, the renewal of certification will be denied.

Individual CEU records for certified operators are available at the Division of Drinking Water office. Contact the Operator Certification Program staff to request your free operator record. Operator records are also available to view online at: <https://waterlink.utah.gov/deqWater/public/ceuReport.html>

Utah Operator Certification Rules

Rule 309-300 Summary

Summary

These rules cover the certification of water system operators.

Coverage

The rules apply to all community and non-transient non-community drinking water supply systems serving more than 25 individuals, and all public drinking water systems that utilize surface water sources or groundwater under the direct influence of surface water.

General

There are two classifications of certified operators: a) Certified operators are individuals who are actively involved in operating public water systems, and b) Certified water specialists are those involved with the water industry but not actively involved with operating a public water system. Distribution system or treatment plant managers are required to be certified at the grade of the waterworks system with an appropriate unrestricted certificate. All other direct responsible charge (DRC) operators shall be certified at the classification of the water system. . Where 24-hour shift operation is used or required, one operator per shift must be certified at the classification of the system operated.

When a system required to have a certified operator finds itself without one, they must obtain an appropriately certified operator within one year. A regional operator must have an unrestricted certificate equal to or higher than the grade and discipline of the rating applied to each system he is operating.

Examinations

All examinations shall be given once or twice a year, generally at each of 15 district health department offices and/or a Salt Lake City location. If an operator taking the examination fails to pass, he/she may file an application for reexamination. The minimum passing grade for all examinations shall be 70 percent. An individual who has failed to pass two consecutive written examinations of the same discipline and grade may apply to take an oral examination. Examinations will be offered in four grade levels for water treatment and five grade levels for water distribution, covering: a) general water supply knowledge, b) control processes and disinfection in water treatment or distribution, c) operation, maintenance, pumps, safety/security, and emergency procedures, d) proper record keeping, and e) rules, requirements, math and water quality standards.

Certificates

A restricted certificate will be issued to those operators who have passed a higher grade examination than the grade for which they have qualified for by experience. Upon accumulating the necessary experience, these restricted certificates will become unrestricted with the same renewal date. Water specialist certificates will be issued to those persons who have met the experience requirements and have successfully passed the written examination. An individual who currently holds a valid certificate and who is no longer directly employed by a Utah drinking water system may request his certificate be converted to a water specialist with the same expiration date.

Utah Operator Certification Rules (continued)

All certificates will expire on December 31, three years from the year of issuance. Failure to remain active in the waterworks can result in denial of certificate renewal. Reinstatement (renewal of a lapsed certificate) may occur by payment of the fee and/or passing an examination. Renewal of a lapsed certificate may occur without examination within 6 months of the expiration date. Reinstatement of a lapsed certificate may occur by appealing to the Commission within one year after the 6-month grace period. Training, experience, education and progress made since the certificate lapsed will be considered in the reinstatement process.

Certificate Suspension and Revocation Procedures

The following may be grounds for suspending or revoking a certificate: a) demonstrated disregard for the public health, b) falsification of data, or c) cheating on a certification examination. Any suspension or revocation may be appealed to the Drinking Water Board by filing a request for a hearing with the Executive Secretary.

Facility Classification System

WATER TREATMENT CLASSIFICATION

Grade Level:	1	2	3	4
Population Served:	1,500 or less	1,501 - 5,000	5,001 - 15,000	over 15,000

DISTRIBUTION CLASSIFICATION

Grade Level:	Small System	1	2	3	4
Population Served:	25 - 500	501 - 1,500	1,501 - 5,000	5,001 - 15,000	over 15,000

CEUs and Approved Training

The following CEUs shall be obtained by a certificate holder every three years before the individual's certificate can be renewed. 10 hours = 1 CEU.

<u>Classification</u>	<u>CEUs required in a 3-year period</u>
Small System	2 CEUs
Grades I and II	2 CEUs
Grades III and IV	3 CEUs

Non-compliance with Certification Program

After appropriate consideration by the Commission, cases of non-compliance will be referred to the Drinking Water Board for appropriate enforcement action.

Operator Certification Program Fees - Effective July 1, 2006

Record application	none
Examination (all grade levels)	\$100.00
Renewal of certificate	\$100.00
Reciprocity	\$100.00
Reinstatement of lapsed certificate	\$200.00

Minimum Qualifications for Certification

“Restricted” status is given to operators/specialists who do not meet the requirements below. You may file for Unrestricted status any time after meeting the requirements, using the form found online at:

<http://www.deq.utah.gov/FeesGrants/fees/drinkingwater/shoppingcart.htm>

MINIMUM REQUIRED QUALIFICATIONS FOR UTAH WATERWORKS OPERATORS

Certification Grade (Both Distribution and Treatment)	EDUCATION				EXPERIENCE	
	Degree	Associate Degree	High School	Non-High School	DRC Years	Total Years
4	X				2	4
		X			2	6
			X		4	8
				X	5	10
3	X				1	2
		X			1	2
			X		2	4
				X	3	6
2	X				0	2
		X			0	2
			X		0	2
				X	0	3
1 & Small System	X				0	1
		X			0	1
			X		0	1
				X	0	1

Division of Drinking Water Operator Certification Program 2016 Schedule for Written and Online Exams

ATTENTION ALL WATER SYSTEM OPERATORS AND MANAGERS, AND ANYONE SEEKING EMPLOYMENT IN THE WATER INDUSTRY. Utah's Department of Environmental Quality, Division of Drinking Water (DDW), is offering operator certification written exams for water distribution and treatment systems. All grade levels, including small systems, will be offered:



• **April 14, 2016**, at 16 Utah exam sites (see *Application for Written Exam* for list of cities). Application deadline: **March 24, 2016**.

• **November 10, 2016**, (see *Application for Written Exam* for list of cities). Application deadline: **October 20, 2016**.

Additional Exam Dates and Training (Contact RWAU)

The Rural Water Association of Utah (RWAU) will sponsor a written certification exam in conjunction with their Spring and Fall training conferences. IMPORTANT ► Individuals taking the RWAU-sponsored exam must submit the special RWAU exam application and \$100.00 fee directly to the RWAU office at 76 East Red Pine Drive, Alpine, Utah 84004-1557. For more information, contact Shantell Cummins at 801-756-5123.

► Exam date: March 4, 2016 (St. George City). *Exam application deadline: February 12, 2016*

► Exam date: September 1, 2016 (Layton City). *Exam application deadline: August 11, 2016*

ONLINE TESTING is available year-round by appointment only. To schedule a State of Utah online certification exam, contact *Shantell Cummins* at RWAU at 801-756-5123. For more information about online testing and training, visit the RWAU website at <http://www.rwau.net>



UTAH DEPARTMENT *of*
ENVIRONMENTAL QUALITY
**DRINKING
WATER**

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