
Rules of
Department of Natural Resources
Division 60—Public Drinking Water Program
Chapter 14—Operator Certification

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**Title 10—DEPARTMENT OF
NATURAL RESOURCES
Division 60—Public Drinking Water
Program
Chapter 14—Operator Certification**

**10 CSR 60-14.010 Classification of Public
Water Systems and System Requirements**

PURPOSE: This rule determines the classification level of public water system treatment and distribution systems for the purpose of determining the certification level required for the chief operator. It also establishes system requirements for certified operating personnel.

(1) Applicability. This rule applies to all community and nontransient noncommunity public water systems and those transient noncommunity public water systems that use surface water or groundwater under the direct influence of surface water. Therefore, where the term “public water system” is used in this rule, it is understood to refer only to these types of systems.

(2) Definitions.

(A) Available. Based on system size, complexity, and source water quality, a certified operator must be on-site or able to be contacted promptly (i.e., reasonably accessible) as needed to initiate appropriate action in a timely manner.

(B) Certified operator. Any individual holding a valid water treatment or water distribution certificate of any level issued by the department.

(C) Chief operator. A certified operator designated by the owner of the public water system to have overall responsibility for the day-to-day process control/system integrity decisions regarding supervisory and operational activities that will directly impact the quality and quantity of drinking water. This individual must possess a certificate at the level of or higher than the classification of the treatment facility or distribution system for which he or she is responsible.

(D) Operator in responsible charge. An individual who performs the duties of a chief operator.

(E) Operate. To make or act upon process control/system integrity decisions regarding a water treatment facility or distribution system.

(F) Process control/system integrity decisions. Day-to-day decisions that maintain or cause changes in the chemical, biological, physical or radiological quality of the drinking water. These decisions primarily reflect independent, individual judgement which

when made incorrectly have the potential to place the public health at risk or place the soundness of the water system or its ability to provide a safe, adequate and continuous supply of water at risk. These decisions are not referring to system design or modifications for which the department requires design or approval by a professional engineer.

(G) Treatment facility. Any place(s) where a community water system or nontransient noncommunity water system alters the physical or chemical characteristics of the drinking water. Chlorination may be considered a function of a distribution system.

(H) Distribution system. Any combination of pipes, tanks, pumps, etc. which delivers water from the source(s) and/or treatment facility(ies) to the consumer.

(3) Classification of Public Water Systems.

(A) The department will classify each treatment facility by considering the treatment facility complexity, source of water, type of treatment performed and, for surface water systems only, size. This classification is based on, but may not be limited to, the criteria in Table 1 of this rule. Other treatment technologies not listed in Table 1 will be considered on a case-by-case basis. From this classification process, the department will determine the certification level that a chief operator must have to supervise the operation of the treatment facility. Treatment facilities (except as provided in paragraph (3)(B)1. of this rule) will remain classified at the level determined prior to August 1, 2001 or will be classified as indicated by Table 1 of this rule, whichever is the higher classification.

(B) The department will classify each distribution system by size and complexity. This classification is based on, but may not be limited to, the criteria in Table 2 of this rule. Other distribution technologies will be considered on a case-by-case basis. From this classification process, the department will determine the certification level that the chief operator must have to supervise the operation of the distribution system.

1. Systems that only chlorinate, reduce the hardness of the water by ion exchange, or provide no treatment will be classified as distribution systems.

2. DS-III distribution system operator certificates shall be issued to all operators who possess a valid Missouri drinking water system operator certificate on August 1, 2001.

(C) The classification of public water systems, the operational control of which relies on extensive instrumentation, automation and SCADA systems, will be determined on a case-by-case basis.

(D) If changes in the method of classifying water systems result in a reclassification of a water treatment system, then the chief operator shall receive the appropriate certification to continue as chief operator.

(E) A public water system owner can request in writing a hearing before the department to appeal the system’s classification. The hearing shall be conducted by the director of the department or a hearing officer designated by the director.

Table 1. Water Treatment System Classification

The highest level applicable to the system is the classification of the system.		Classification
Source Water	Surface Water source, with treatment facility capacity greater than 1.5 Million Gallons per Day	A
	Surface Water source, with treatment facility capacity less than or equal to 1.5 Million Gallons per Day	B
	Ground Water Under Direct Influence of Surface Water (GWUDI)	B
	Purchased water, with further treatment by the purchasing system (other than chlorination or ion exchange softening)	D
	Ground Water (Not GWUDI), with treatment other than chlorination or ion exchange softening	D
	Ground Water (Not GWUDI) or Purchased Water with chlorination or ion exchange softening only	See Classification Table 2
	Ground Water (Not GWUDI) or Purchased Water with no treatment	
Disinfection	Chlorine Dioxide	B
	Ozone	B
	Ultra Violet Light	D
	Gas Chlorination with one-ton containers	C
	Gas Chlorination, Calcium or Sodium Hypochlorination in combination with other treatment other than ion exchange softening	D
	Chloramines	D
Chemical Treatment	Chemical Oxidation (example—potassium permanganate)	C
	Coagulation—Groundwater	C
	Coagulation—Surface Water	B
	Fluoridation	D
	Ion Exchange (for purposes other than softening including processes such as nitrate removal)	C
	Lime/Soda Softening	C
	Sequestration	D
	pH, alkalinity adjustment	C
Physical Treatment	Adsorption (example—Activated Carbon)	C
	Aeration (examples—cascade, diffused, packed tower, slat tray, spray)	D
	Filtration (example—greensand, pressure, rapid gravity, slow sand)	C
	Reverse Osmosis, Membrane Filtration, Ultrafiltration	B
	Ion Exchange (for softening) is included in all treatment and distribution certifications. The level of certification required will be determined by the other treatment or distribution characteristics as appropriate	Each type and level

Table 2. Water Distribution System Classification.

The highest level applicable to the system is the classification of the system.		Minimum Classification
Population served (by distribution system)	Greater than 10,001	DS III
	Between 3,301 to 10,000	DS II
	Up to 3,300	DS I
Pressure Zones	Multiple, interconnected pressure zones	DS II
	Single pressure zone in system	DS I
Distribution Source Water	Multiple sources (distributed water is blended from more than one treatment facility, well, or purchased source and finished waters from various sources are substantially different in chemical characteristics)	DS III
	Multiple sources (distributed water is blended from more than one treatment facility, well, or purchased source and finished waters from various sources are substantially the same in chemical characteristics)	DS II
	Single source (distributed water comes from a single treatment facility, well, or purchased from a single source at any one time)	DS I
System Storage	Multiple gravity storage facilities or water must be pumped from storage facility	DS II
	Pneumatic tanks or single gravity storage "floating on system"	DS I
Valves	Altitude valves in system	DS II
	Pressure reducing valves necessary on customer lines	DS II
Disinfection	Gas Chlorination is the only distribution system treatment	DS II
	Calcium or Sodium Hypochlorite is the only distribution system treatment	DS I
	Water in distribution systems from surface water source is re-chlorinated	DS III
Fire Protection	Fire protection is provided by distribution system	DS II
	No fire protection provided by distribution system	DS I
Ion Exchange (for softening) is included in all treatment and distribution certifications. The level of certification required will be determined by the other treatment or distribution characteristics as appropriate		Each type and level

(4) System Requirements.

(A) The water system owner shall place the direct supervision of each treatment facility and each distribution system under the responsible charge of a chief operator.

1. The chief operator shall possess a valid certificate equal to or greater than the classification of the treatment facility or distribution system.

2. The chief operator can be responsible for both the water treatment facility and distribution system at the owner's discretion.

3. The chief operator shall have overall responsibility for no more than one (1) surface water treatment system under one public water system identification number, unless otherwise approved by the department on a case-by-case basis.

4. The name of the chief operator shall be supplied to the department by the owner of the public water system and will be on file at all times.

5. In the event the chief operator is no longer available to serve, the owner of the public water system shall notify the department of the vacancy within ten (10) working

days and shall appoint an interim operator. The interim operator shall be considered the system's certified chief operator for the purposes of complying with 10 CSR 60-14.010 and 10 CSR 60-14.020 on a temporary basis until a properly certified chief operator is hired. Following consultation with the public water system owner, the department will establish a schedule of activities and a timeline for the system to have a certified chief operator who has met all applicable certification requirements.

6. Public water systems shall have a contingency plan for a standby replacement chief operator to be available at all times. This may be, for example, a second employee certified at the chief operator level, a mutual assistance agreement with a neighboring system, or a pre-arrangement with a contract operator.

7. The owner shall notify the department in writing within ten (10) working days after the chief operator is replaced.

(B) If modifications to the public water system change the system's classification to a higher level, the chief operator shall be

required to obtain the higher level certificate by examination.

(C) All operating personnel making independent process control/system integrity decisions about water quality or quantity that affect public health must be certified. This will not typically include, for example, maintenance personnel implementing process control/system integrity decisions made by a certified operator.

(D) Possession of a letter of examination results does not qualify an individual to serve as a certified operator or certified chief operator for a public water system. An individual is not certified until the department issues the appropriate operator certificate.

(E) All process control/system integrity decisions about water quality or quantity that affect public health must be made by a certified operator based on procedures approved by the chief operator.

(F) Contract Operator Agreement.

1. Public water systems employing a certified chief operator through a contract operator ("circuit rider") arrangement to meet the requirements in subsection (4)(A)



shall have a written agreement indicating the responsibilities of the operator, including but not necessarily limited to:

A. The minimum frequency of routine visits to the water treatment facility or distribution system;

B. The operator’s duties and responsibilities;

C. The minimum hours the operator will be present for each routine visit;

D. The certification level required by the department for the treatment facility and/or distribution system that the operator is responsible for;

E. The level of certification held by the contract operator;

F. The minimum response time for the operator to be at the water system in the event of an emergency; and

G. The number of employees, if any, hired to assist.

2. Circuit rider operators and other contract operators who are performing the duties of chief operator shall be held accountable for operational decisions made in their stead.

3. A copy of the current agreement shall be on file at the system at all times and shall be provided to the department upon request.

(G) The department may establish minimum operator oversight requirements for facilities with extensive instrumentation, automation and SCADA systems. Minimum operator oversight determinations will be made on a case-by-case basis.

(5) Violations.

(A) No person, firm, corporation, municipal corporation 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 as provided in 10 CSR 60-14.020 or 10 CSR 60-14.010(4)(A)5, except during periods of emergency or disaster.

(B) No person shall perform the duties of a chief operator without being duly certified under the provisions of 10 CSR 60-14.020 or 10 CSR 60-14.010(4)(A)5.

(C) Any person, including any firm, corporation, municipal corporation or other governmental subdivision or agency who violates any provisions of this rule will be subject to the penalty provisions of sections 640.130 and 640.131, RSMo.

AUTHORITY: section 640.100, RSMo 2000. Original rule filed July 11, 1986, effective Jan. 1, 1987. Amended: Filed March 31, 1992, effective Dec. 3, 1992. Amended: Filed Nov. 15, 2000, effective Aug. 1, 2001.*

**Original authority: 640.100, RSMo 1939, amended 1978, 1981, 1982, 1988, 1989, 1992, 1993, 1995, 1996, 1998, 1999.*

10 CSR 60-14.020 Certification of Public Water System Operators

PURPOSE: This rule sets forth requirements for obtaining and renewing a water system treatment or distribution operator certificate, including experience, education, application and examination requirements. Procedures for denial, suspension and revocation of an operator’s certificate are also established.

(1) Training and Experience Required for Certification.

(A) Actual drinking water treatment or distribution operating experience means the skills and knowledge acquired from making or acting upon day-to-day process control/system integrity decisions rather than from textbook study or supervisory observation. It means the applicant has actually operated a water treatment facility or distribution system, depending on the certificate sought. In addition, the applicant should have experience in some combination of water system operational tasks such as: sample collection, routine operational tests, interpretation of test results, calculation of chemical dosages and subsequent adjustment of chemical feeders, flow rate and pressure adjustments, filter backwash, water main repair, disinfection and flushing and completion of operational reports.

(B) Equivalent drinking water treatment facility or distribution system operating experience means skills and knowledge acquired from education as described in this rule or work experience that has a substantial relation to drinking water treatment or distribution, depending on the certificate sought.

(C) In order to be eligible for a certificate, the applicant must have accumulated actual or equivalent operational experience and in accordance with Tables 1 and 2.

Table 1. Experience Requirements for a Water Treatment Certificate.

Certificate Level	Minimum Actual and Equivalent Experience
A	Five and one-half (5 1/2) years of water treatment facility operating experience (of which two (2) years may be equivalent)
B	Three and one-half (3 1/2) years of water treatment facility operating experience (of which one (1) year may be equivalent)
C	One and one-half (1 1/2) year of water treatment facility operating experience (of which one (1) year may be equivalent)
D	Six (6) months of water treatment facility operating experience (which may be equivalent)

Table 2. Experience Requirements for a Distribution Certificate.

Certificate Level	Minimum Actual and Equivalent Experience Requirements
DS-III	Three (3) years of water distribution system operating experience (of which one (1) year may be equivalent)
DS-II	One (1) year of water distribution system operating experience (of which six (6) months may be equivalent)
DS-I	Six (6) months of distribution system operating experience (which may be equivalent)

(D) Years of equivalent experience shall be computed from the criteria in Table 3.

Table 3. Equivalent Experience.

1.	Graduation from an approved one (1) year certificate program in water/wastewater technology	1 year equivalent experience
2.	College level course in related field of chemical/biological/ environmental or allied science or public health (grade C or better)	1 month equivalent experience per three (3) semester hours (maximum of 6 months of credit)
3.	Two (2)-year associate degree in related field (chemical/ biological/environmental or allied science or public health)	1 1/2 years equivalent experience
4.	Four (4)-year degree or higher in related field (chemical/biological/environmental allied science or allied sciences or public health, or civil, mechanical, electrical or related engineering degree)	2 years equivalent experience
5.	Department-approved water treatment training course of at least forty-five (45) contact hours (4.5 CEUs)	1/2 year equivalent treatment facility experience per course (maximum credit of 1 1/2 years) (For multi-day courses, attendance of at least eighty percent (80%) of the course hours is required to receive credit.)
6.	Department-approved water distribution system-training course of at least thirty-five (35) contact hours (3.5 CEUs)	1/2 year equivalent distribution system experience per course (maximum credit of 1 year) (For multi-day courses, attendance of at least eighty percent (80%) of the course hours is required to receive credit.)
7.	Successful completion of a department-approved correspondence course of at least forty-five (45) contact hours (4.5 CEUs)	1/2 year equivalent experience per course towards the appropriate type of certificate (maximum credit of 1 1/2 years)

(E) Equivalent experience credit will be given for department-approved courses developed in a modular format upon completion of all the modules.

(F) Vocational training related to water utilities will be considered for a maximum of six (6) months' equivalent experience credit.

(G) Upon submission of documentation to the department, the number of years of equivalent experience for formal or vocational training will be calculated.

(H) Documentation submitted for actual and equivalent experience credit consideration which does not fit previously mentioned criteria will be evaluated by the department based on time worked and the relationship to water treatment or distribution. While water system engineering, construction, and safety are water system activities, they are insufficient experience in themselves to be considered actual operating experience. Equivalent experience credit for the purpose of meeting the experience requirement is limited to the maximum years allowed in Tables 1 and 2 of this rule. (Note: The experience allowed for high school equivalency under subsection (1)(N) is in addition to this limit.)

(I) Examples of Actual and Equivalent Operating Experience.

1. Actual experience includes, but is not necessarily limited to, the following examples:

A. Experience in performing water system operational tasks such as: sample collection, routine operational tests, interpretation of test results, calculation of chemical dosages and subsequent adjustment of chemical feeders, flow rate and pressure adjustments, filter backwash, water main repair, disinfection and flushing and completion of operational reports;

B. Experience in making or acting upon day-to-day process control/system integrity decisions;

C. Working as laboratory personnel within a public water system and performing analytical tests, interpreting the results and having the authority to determine needed process control changes qualifies as actual treatment experience;

D. Providing repair and maintenance of pumps, distribution system maintenance, pump station repair, mechanical equipment repair and installation, etc. will be credited with actual distribution and equivalent treatment experience;

E. Consulting engineers will be credited with actual operating experience for experience in making day-to-day process control/system integrity decisions regarding the water treatment facility or distribution system. In order for actual experience to be con-

sidered the engineer shall provide documentation of beginning and ending employment dates and the time worked involving these day-to-day process control/system integrity decisions. A letter of verification substantiating the nature of the operating experience from the owner or water manager of each system named shall be included in the application for certification; and

F. Managers and supervisors making process control/system integrity decisions regarding the treatment facility or distribution system will be credited with actual operating experience.

2. Equivalent experience.

A. Equivalent treatment experience includes but is not necessarily limited to the following examples:

(I) Consulting engineers conducting work in design and construction of water treatment facilities;

(II) Experience by individuals who perform wastewater analytical tests or drinking water analytical tests for others but do not interpret the results and determine the subsequent needed process control changes;

(III) Wastewater treatment plant operators; and

(IV) Swimming pool operation and maintenance involving water treatment will receive one-quarter (1/4) credit for actual employment time for a maximum allowable six (6) months of equivalent experience credit for water treatment certification.

B. Equivalent distribution experience includes but is not necessarily limited to the following examples:

(I) Consulting engineers conducting work in design and construction of water distribution systems;

(II) Public health officials who inspect public water systems;

(III) Water systems administrative personnel, such as secretaries, meter readers and clerks, etc. who perform such tasks as meter reading, billing and handling of complaints over the telephone, etc.;

(IV) A developer, contractor or employee who has assisted in the installation of water mains or the pump house, but who has not yet accrued actual experience operating the new distribution system;

(V) Experience by individuals within a public water system whose sole water system operational duty is sampling;

(VI) Plumbers will be credited with equivalent distribution experience only;

(VII) Wastewater collection system operators will be credited equivalent water distribution experience only.

C. Experience in the following areas will be credited with equivalent experience

for both treatment and distribution certification:

(I) State department water system inspectors and engineers working with public water systems; and

(II) Boiler water and other industrial use water treatment.

3. Examples of work experience which may have a relationship to a public water system but are not generally considered for actual or equivalent operating experience credit.

A. A superintendent or manager of public works, water commissioner, mayor, board members, councilpersons or other management positions will not be credited as having actual experience if they perform only general administrative duties and do not make day-to-day process control/system integrity decisions.

B. Private laboratory personnel who only collect samples from public water systems will not receive actual or equivalent experience credit.

(J) Any person not possessing the necessary water system experience required for a particular level of certification may take the examination. Examinee's applications are not evaluated for adequate experience until after they have passed the examination.

(K) Upon successful completion of the examination, the individual will have to obtain the necessary applicable water treatment or distribution system experience within the following time frames to be considered for certification:

1. For all levels of examinations taken on or after August 1, 2001, examinees shall have eighteen (18) months from the date of the examination;

2. For A and B level examinations taken prior to August 1, 2001, examinees shall have two (2) years from the date of the examination; and

3. For C and D level examinations taken prior to August 1, 2001, examinees shall have one (1) year from the date of the examination.

(L) If the necessary experience is not obtained within these time frames, the individual must reapply and reexamine.

(M) The minimum age for certification shall be eighteen (18) years.

(N) Education Requirement.

1. The minimum education requirement for certification is fulfilled by meeting any one (1) of the following conditions: a high school diploma; a general equivalency diploma (GED); successful completion of special department-approved training appropriate to the type of certification sought; or six (6) months of experience.

2. Training or experience used to meet the education requirement shall not be counted for equivalent experience credit. Training or experience used to meet the education requirement is not included in the maximum limit on equivalent experience in subsections (1)(C) and (1)(D).

(2) Application for Certification Examination.

(A) Application for certification examination shall be made to the department on forms provided by the department.

1. The completed application must be received by the department at least thirty (30) days prior to the examination date.

2. Failure to provide complete working experience information or academic transcripts with the application will result in no operating experience or education credit given for the incomplete items.

(B) The application fee for certification as a water treatment facility or a water distribution system operator shall be forty-five dollars (\$45) and shall accompany the application. This fee includes the initial examination fee.

(C) An individual applying to take the certification examination will be allowed to reschedule two (2) times within one (1) year of the application date. After one (1) year from the date of the initial application, the individual must reapply as required in subsections (2)(A) and (B) of this rule.

(3) Examination.

(A) The examination application for each applicant must be approved by the department.

(B) A passing score of seventy percent (70%) is required in order to become certified.

(C) Any examinee who fails to receive a passing grade may not repeat that level examination for a period of not less than sixty (60) days. The applicant must submit a new application for each examination. A fee of twenty dollars (\$20) shall accompany the application for each subsequent exam at that level.

(D) Examination shall be held at a frequency of not less than four (4) times annually for the purpose of examining applicants for certification at a time and place designated by the department.

(E) Based on the subjects an operator needs to know for a particular type and level of certification, examinations shall contain, but shall not necessarily be limited to, questions pertaining to: the Missouri Public Drinking Water rules; general water systems knowledge; water quality; applied mathematics; chemistry; biology; environmental sci-

ences; laboratory testing procedures; hydraulics; pumping systems; water storage facilities; system controls; backflow prevention; and water treatment or distribution system operation.

(F) Any examinee who fails a certification examination three (3) times and has not successfully completed a department-approved multi-day training course within the previous twelve (12) months that is appropriate to the type and level of certification being sought must do so prior to any further reexamination at that level.

(G) An individual holding a valid Missouri operator certificate shall not be allowed to take an examination of a type and level equal to or lower than their existing certificate.

(H) An examinee who has passed the exam for a particular type and level of certification but did not obtain the necessary experience within the time period allowed in subsection (1)(K) of this rule, will be allowed to reexamine for that level and type of certification.

(4) Certification Without Examination (Grandparenting).

(A) Grandparenting is permitted only to operators in responsible charge of systems that have not been required by the department to have a certified operator prior to August 1, 2001. This includes operators in responsible charge of the distribution system whose responsibilities are separate from those of the operator in responsible charge of the treatment system.

(B) Certificates in appropriate classification type and level shall be issued without examination to no more than three (3) operators in responsible charge when the following conditions are met:

1. The owner of the public water system attests that the individual has been an operator in responsible charge making process control/system integrity decisions for at least one (1) year prior to the date of the application for grandparenting;

2. An application is submitted by February 5, 2003 on forms provided by the department for each operator in responsible charge being grandparented. Each application shall be signed and dated by the owner and the individual designated for grandparenting; and

3. A nonrefundable operator's certificate fee of forty-five dollars (\$45) is submitted for each certificate requested.

(C) A grandparented certificate will be valid only for the operator named on the certificate and only at the water treatment facility or distribution system named on the certificate. Any certificate issued under this provision shall be identified as restricted.

(D) If the classification of the treatment system or distribution system changes to a higher level due to design modifications, the grandparented certification will no longer be valid.

(E) If the grandparented certificate is allowed to expire, the operator must meet the requirements for regular, nongrandparented certification, including passing the appropriate examination.

(F) The operator may replace the restricted, grandparented certificate with a non-restricted water certificate appropriate to the water system's classification level at any time by passing the applicable examination and meeting the experience requirements.

(G) Grandparented operators must, within three (3) years of certification, meet all requirements for renewing the grandparented certificate. In order for a grandparented certificate to be renewed the following conditions must be met:

1. The water system owner must certify in writing to the department that the operator named on the certificate continues to be an operator in responsible charge for the public water system;

2. A completed renewal application and fee of forty-five dollars (\$45) must be submitted for each certificate; and

3. The department-approved renewal training must be completed prior to the expiration of the certificate.

(5) Reciprocity.

(A) Certificates may be issued, without examination, to any person who holds a valid certificate attained by examination in any state, territory or possession of the United States or any country or any other certifying authority, if the requirements for certification of operators under which the person's certificate was issued do not conflict with the provisions of this rule and are at least as stringent as this rule.

(B) The operator requesting certification by reciprocity must have actual water treatment or distribution working experience with a public water system appropriate to the certification sought in the state, province, country, territory or other authorized area which issued the certificate for which reciprocity is requested.

(C) Application for reciprocity shall be made on the form provided by the department and submitted with an application fee of sixty-five dollars (\$65) to the department within one hundred eighty (180) days after beginning employment with a public water system in Missouri.

(D) Reciprocal certificates will not be issued to persons who are not employed with

a public water system in Missouri. If employment with a Missouri public water system is dependent upon Missouri certification, the department will send a letter of intent to issue a certificate to the applicant. The letter of intent is valid for one hundred eighty (180) days provided that the certificate that the application is based upon remains valid. After that time, the applicant must reapply.

(E) The level of certificate issued will be determined by comparing the original certifying agency's requirements for certification to Missouri requirements.

(6) Certificates.

(A) Each applicant having met the requirements of a specific certification classification as outlined in this rule and having passed the appropriate examination shall be issued an appropriate certificate.

(B) A certified operator meeting the requirements for a higher level of certification by examination and experience, will be issued the higher level certificate. Upon this issuance, the certificate for the lower classification will become invalid.

(C) The certificate shall be issued for a three (3)-year period. Certificates shall be renewed according to the provisions of section (8).

(7) Denial, Suspension or Revocation of Certificate.

(A) The department may deny a certificate to an applicant if the individual is unqualified, has practiced fraud or deceit in applying for the certificate or has willfully violated any provision of 10 CSR 60.

(B) Based on the frequency and severity of violations of 10 CSR 60, the department may suspend or revoke the certificate(s) of an operator if it is found that the operator has practiced fraud or deception in obtaining the certificate, exhibited gross negligence, malpractice or incompetence in operating a public water system, sabotaged the water system, misled or lied to a government official regarding the water system, participated in sample tampering or selective sampling, falsified facility operating records or reports required by 10 CSR 60 or willfully violated 10 CSR 60.

(C) Suspension shall be for a period not to exceed one (1) year.

(D) Notice of suspension or revocation shall be issued by the department with service by hand delivery or through certified mail to the certified operator's last known address. The notice shall state the reason(s) for suspension or revocation, the effective date of the suspension or revocation and any

action(s) that the certified operator may take to contest the suspension or revocation.

(E) The operator shall be afforded a hearing before the department provided that a written request for a hearing is received by the department within thirty (30) days of notification that suspension or revocation proceedings have been initiated. The hearing shall be conducted by the director or a hearing officer designated by the director and shall be conducted in accordance with the procedures set forth in sections 536.070, 536.073, 536.077, 536.080 and 536.090, RSMo.

(F) The suspended or revoked certificate shall be returned to the department by hand delivery, certified mail with return receipt, or registered mail.

(G) Any person wishing to become certified after revocation of a certificate may do so only by examination. Applications for examination to become certified may not be filed until one (1) year has elapsed following the date of revocation. Acceptance of any application for examination shall be at the discretion of the department.

(H) Certification by reciprocity or examination shall not be available to an individual whose certificate has been suspended or revoked until after the period of suspension or revocation.

(I) Operators with a suspended certificate will receive credit for department-approved training courses attended during the period of suspension.

(J) Should a suspended certificate be due for renewal during the period of suspension the operator shall submit the renewal application and fee prior to the expiration date. The renewed certificate will be held by the department until the end of the suspension period.

(K) No individual shall make water system process control/system integrity decisions or perform any duties requiring certification while their certificate is suspended or revoked.

(8) Certificate Renewal.

(A) All certificates issued by the department shall be renewed at least every three (3) years, unless prorated by the department to some other time frame.

(B) All training must be completed prior to the expiration date of the certificate and in accordance with subsection (8)(C). Only training approved by the department will be accepted.

(C) Before a certificate will be renewed, the applicant must submit documentation of training sufficient to meeting the minimum hours for the certificate level, as indicated in Table 4.

Table 4. Minimum Training Required per Renewal Cycle.

Certification Level	Minimum Training Required
A	30 hours
B	30 hours
C	30 hours
D	20 hours
DS III	30 hours
DS II	20 hours
DS I	10 hours

(D) The department will send a renewal notice to the applicant's last known address at least sixty (60) days prior to the expiration of the certificate. Failure of the department to notify the certified operator of the certificate's pending expiration does not relieve the certified operator of the responsibility for renewing the certificate.

(E) An application for renewal shall be made on the form provided by the department prior to the lapse of the operator's certificate. A completed renewal application and fee of forty-five dollars (\$45) must be submitted for each certificate.

(F) Any certificate not renewed within the two (2) months following the expiration date will be considered lapsed. Any operator with a lapsed certificate will have to submit a new application and reexamine as provided in sections (3) and (4) of this rule.

(G) A late fee of ten dollars (\$10) per month or fraction of it, up to a total of twenty dollars (\$20), shall be charged for any certificate renewed after the expiration date.

(H) If a certified operator has submitted a timely and complete application for renewal, possesses sufficient renewal training and, through no personal fault, the department is unable to issue a new certificate before the expiration date of the current certificate, the current certificate shall remain valid until the department issues its replacement or denies renewal.

(I) An operator shall notify the department in writing of any change in status including, but not necessarily limited to, a change of address, name, telephone number or employer. Submittal of E-mail address and fax number are encouraged. E-mail and fax communications are acceptable methods of written communications under this provision.

(J) Individuals certified prior to August 1, 2001 may count their approved water treatment training hours toward the first renewal of their distribution certificate issued under 10 CSR 60-14.010(3)(B)2.

(K) The first time an operator renews a distribution certificate issued under 10 CSR 60-14.010(3)(B)2. the operator may elect to

receive a distribution certificate of a lower level if the lower certification level is, at a minimum, equal to the classification of the distribution system they operate.

(9) All certification and examination fees submitted are nonrefundable and nontransferable.

AUTHORITY: section 640.100, RSMo 2000. Original rule filed July 11, 1986, effective Jan. 1, 1987. Rescinded and readopted: Filed July 15, 1991, effective March 1, 1992. Amended: Filed Nov. 15, 2000, effective Aug. 1, 2001.*

**Original authority: 640.100, RSMo 1939, amended 1978, 1981, 1982, 1988, 1989, 1992, 1993, 1995, 1996, 1998, 1999.*

10 CSR 60-14.030 Operator Training

PURPOSE: This rule establishes criteria for approval of training courses.

(1) Only training related to water system operations and maintenance, treatment facilities or distribution systems approved by the department will be given credit.

(A) Training requirements for renewal will be based on the level of certification held by the operator.

(B) Training should include an update of new regulation requirements.

(C) Not more than one-half (1/2) of the total renewal training hours required in a renewal period shall be credited from safety, supervisory, management, administration and financial training and general computer courses.

(2) The following are examples of acceptable training for renewal credit and are not intended to be all-inclusive. Renewal training may include:

(A) Information on regulations, operations, maintenance, construction, testing, record keeping, and repair of equipment including pumps, control valves, altitude valves, fire hydrants, flush hydrants, chlorinators, chemical feeders, elevated tanks, standpipes, reservoirs, pressure tanks, bladder tanks, filters, backflow devices, meters, control systems, and standby power generators;

(B) Information on operations and process control of water treatment system processes including aeration, rapid mix, flocculation, sedimentation, filtration, disinfection, chemical oxidation, chemical precipitation, pH adjustment, stabilization, fluoridation, absorption, ion exchange, reverse osmosis,

sludge handling, sequestration, and corrosion control;

(C) Information applicable to water systems on mathematics, chemistry, geology, hydrology, limnology, meteorology, microbiology, hydraulics, cartography, and epidemiology;

(D) Sampling and laboratory techniques for all samples, and analytical analysis required under Chapters 4, 5 and 15 of 10 CSR 60 and as needed for process control;

(E) Safety practices applicable to water system operations including cardiopulmonary resuscitation, first-aid, confined space entry, shoring and trenching, hazardous materials handling, electrical safety, traffic control at construction sites, self-contained breathing apparatus, chlorine repair kit, and tower climbing;

(F) Common operational/maintenance system procedures including development and implementation of a main flushing program, entire system disinfection and flushing, main repair including disinfection flushing, pressure testing, fire flow measurement, leak detection, tower inspection for sanitary defects, draw-down testing, and loss/leakage calculations; and

(G) Computer classes directly intended for use at water utilities. Examples include but are not limited to: Supervisory Control and Data Acquisition (SCADA) and other water system operational programming, spreadsheets and databases for tracking and trending laboratory results, scheduling and tracking maintenance. Similar training intended for other types of utilities will be considered on a case-by-case basis.

(3) The following examples provide guidance on unacceptable training for renewal credit and are not intended to be all-inclusive:

- (A) Introduction to English;
- (B) History;
- (C) Welding;
- (D) Small motor repair;
- (E) Lawnmower safety; and
- (F) Commercial drivers license training.

(4) All organizations or individuals sponsoring training for water system operators shall submit the following to the department for approval. This information should be submitted to the department at least thirty (30) days prior to the training:

- (A) Date and location of the training;
- (B) Name, address and telephone number of person to contact regarding the training;
- (C) Course outline showing the topic(s) to be presented and time allotted for each (including beginning and ending times);

(D) The name(s) of the instructor(s) and his/her qualifications (not just title or company name);

(E) List of any audiovisual materials to be used such as videotapes, slides, slide/tape presentations, films and overheads; and

(F) Handouts.

(5) The department should be notified at least thirty (30) days in advance of any subsequent session(s) of an approved course.

(6) Credit is based upon actual contact time in the training. All breaks and meal times must be noted on the agenda and will not count toward contact time. Excessive time allotted for introductions or welcomes will not count toward contact.

(7) For multiday courses, no credit will be given prior to the completion of the course. The completion date is the last day of the course. An eighty percent (80%) attendance, based on the total course length in hours, is required to receive credit.

(8) The minimum length of a training course eligible for renewal credit shall be one (1) contact hour. Training credit for a course shall be rounded down to the nearest one-half (0.5) hour. Approved training issued continuing education units (CEUs) will be given credit at the rate of ten (10.0) hours per one (1.0) CEU.

(9) Training provided by the national offices of organizations involved in water treatment or distribution, wastewater treatment, backflow prevention and other related fields or other out-of-state entities will be reviewed for renewal credit on an individual basis. The operator is responsible for retaining proof of training attended and must provide documentation that meets the requirements of section (4) of this rule.

(10) All approvals will be by written correspondence. The approval will include a course attendance roster form that will show the course name, coordinator, date, location, course identification number and amount of renewal credit.

(11) Advertisement of any training shall not state that the program has been approved for credit until the department has issued its formal approval and assigned a course identification number and amount of credit. Any advertisement that states that the training is department-approved must include the course identification number and amount of credit.



(12) Each organization or individual providing training should provide certificates of completion to the attendees. The certificate should include the following:

- (A) Attendee's name;
- (B) Name of the course;
- (C) Credit;
- (D) Course identification number;
- (E) Date that the course was held;
- (F) Location of the course; and
- (G) Name of the course coordinator or instructor.

(13) Training providers shall submit the course attendance roster to the department within fifteen (15) working days of the completion of the course. Information on the roster shall include:

- (A) Name of the course;
- (B) Credit;
- (C) Course identification number;
- (D) Date that the course was held;
- (E) Location of the course;
- (F) Name of the course coordinator or instructor;
- (G) Names of all attendees;
- (H) Certificate number of all attendees, if applicable; and
- (I) For multiday training courses, which sessions the individual attended.

(14) The department shall make known by a public means which courses and seminars are approved.

(15) Renewal credit shall be valid only for the renewal period in which it was earned. Renewal credit in excess of the required hours for the renewal period may not be carried over into any subsequent renewal training period.

AUTHORITY: section 640.100, RSMo 2000. Original rule filed July 15, 1991, effective March 1, 1992. Amended: Filed Nov. 15, 2000, effective Aug. 1, 2001.*

**Original authority: 640.100, RSMo 1939, amended 1978, 1981, 1982, 1988, 1989, 1992, 1993, 1995, 1996, 1998, 1999.*