

State of Colorado



Colorado Department
of Public Health
and Environment

2012 Operator Certification Program Report

Submitted to the U.S. Environmental Protection Agency Region 8 on July 1, 2013
By the Water and Wastewater Facility Operators Certification Board, Colorado
Department of Public Health and Environment

Introduction

In 1999, the U.S. Environmental Protection Agency (EPA) issued operator certification program guidelines specifying minimum standards for certification and recertification of the operators of community and non-transient non-community public water systems. The goal of the operator certification program is to ensure that skilled professionals are overseeing the treatment and distribution of safe drinking water. Operator certification is an important step in promoting compliance with the Safe Drinking Water Act (SDWA).

The State of Colorado's Operator Certification Program (Program) was approved as consistent with the "Final Guidelines for the Certification and Recertification of the Operators of Community and Non-Transient Non-Community Public Water Systems," 64 FR 5916 (Guidelines) on June 22, 2001.

This is Colorado's annual Program report to EPA. The report addresses the status and continued implementation of Colorado's Program for the nine major program components for community and non-transient non-community water systems in accordance with the Guidelines. The nine program components are:

1. Authorization
2. Classification of Systems, Facilities, and Operators
3. Operator Qualifications
4. Enforcement
5. Certification Renewal
6. Resources Needed to Implement the Program
7. Recertification
8. Stakeholder Involvement
9. Program Review

1. Authorization

The Water and Wastewater Facility Operators Certification Board (Board) is a section of the Division of Administration within the Colorado Department of Public Health and Environment. Article 9 of Title 25, Colorado Revised Statutes (C.R.S.), requires every water and wastewater facility to be under the supervision of a certified operator holding a certificate equal to or greater than the classification of the facility. The Board is authorized by 25-9-101 through 110, C.R.S., to promulgate *Water and Wastewater Facility Operators Certification Requirements Regulation 100, 5 CCR 1003-2*, (Regulation 100). The Colorado Department of Public Health and Environment, Water Quality Control Division (Division) is responsible for the oversight of public water systems to ensure compliance with the Safe Drinking Water Act, the Colorado Primary Drinking Water Regulations, Regulation 100, and other pertinent regulations.

On April 24, 2012, the Board approved changes to Regulation 100 that became effective on June 30, 2012. Generally, the Board added clarifications where appropriate, deleted obsolete language, corrected referenced citations, and made grammatical corrections. Stylistic changes throughout the text of the regulation were made for uniformity and clarity. Where possible, the Board reorganized and combined like requirements into unified sections, i.e., section 100.9.9 describing the special rules

for satisfying the minimum experience requirements for Class D, Class 1, Class S and Class T certifications. Because the minimum experience requirement is the same for all three classes, sections 100.9.9(a), 100.9.9(b), and 100.9.6 have been combined into 100.9.9. A copy of the Regulation is included as Attachment 1.

The Colorado Attorney General's Office certifies this regulatory change does not impact Colorado's existing authority to implement its operator certification program. The Attorney General's certification is included as Attachment 2.

2. Classification of Systems, Facilities, and Operators

Public Water Systems

The Program classifies all public water system treatment plants based on their specific design features including, treatment processes that may contribute to complexity, the source of supply, and the plant's design capacity. Distribution systems are classified by the population served. Water treatment facilities are classified as Class D, Class C, Class B, or Class A. Class A is the highest level of classification and Class D is the lowest level of classification. Water distribution systems are classified as Class 1, Class 2, Class 3 or Class 4. Class 4 is the highest level of classification and Class 1 is the lowest level of classification.

Operator in Responsible Charge (ORC)

Regulation 100 requires every water and wastewater facility to be under the supervision of a certified operator holding a certificate equal to or greater than the classification of the facility. The Regulation also requires that all process control and system integrity decision be made by an ORC or other certified operator. A certified operator must be available at all times during operation of a water treatment or distribution facility.

The division has tracked the ORC data in a stand-alone system. The individual operator's certification information is maintained by the Board's contractors and not by the division. There is not a mechanism to compare the two sets of data to determine if the ORC's certificate is valid and at or above the level of the facility they operate. Although the division cannot comprehensively look at compliance, determining compliance has been done manually at the time of sanitary surveys, design reviews, as part of compliance assistance activities for systems that are having recurring issues, and as part of formal enforcement.

Colorado's Safe Drinking Water Program has made facility compliance with the operator certification requirements a program priority. In 2012, the Program began integrating drinking water ORC data into SDWIS and the program is developing reporting mechanisms to compare the two data sets that will provide for a comprehensive look at compliance. The data integration and reporting ability will be complete during 2013.

Table 1 represents the number of facilities that have an operator of record.

Table 1 – Facilities with an Operator

	Number of Public Water Systems	Number of Treatment and Distribution Facilities	Number without an operator of record	Number with an operator of record	Percent of facilities with an operator
Community	871	1641	23	1618	98.6%
Non-Transient Non-Community	176	353	5	348	98.5%
Total	1047	1994	28	1966	98.6%

3. Operator Qualifications

Active Operators

Active drinking water certificate counts are listed by category in Table 2. Colorado requires separate treatment and distribution certification. Additionally, Colorado grants a Class S certification that is a combined treatment Class D and distribution Class 1 operator certification designed specifically for public water systems serving a population of less than 3,300.

Table 2 – Active Operator Certifications*

Level of Certification	Number of Active Certifications
Distribution 4	89
Distribution 3	179
Distribution 2	631
Distribution 1	1117
Water Class A	795
Water Class B	303
Water Class C	637
Water Class D	856
Class S and Class T **	660

* Class A is the highest level of classification and Class D is the lowest level of treatment classification. Class 4 is the highest level of classification and Class 1 is the lowest level of distribution classification.

** Combined Class D and Class 1 for Small Water Systems. The Class T certificate is only valid for transient non-community water systems with only non-gaseous chlorine disinfection and that serve a population of less than 100 people.

Exam Pass Rates

Successful completion of exams is vital to maintain a steady workforce of certified operators. Low pass rates at the higher levels continue to be an area of concern. The program moved to sequential testing during 2012 and requires an applicant hold a valid certificate at the level immediately below the level they are testing for.

Table 3 reports examination success rates for 2012. The average pass rate from 2008-2011 was 54.5%. The average passing percentage for 2012 has increased by nearly three percentage points. The program attributes the increase in the pass rates to the increased numbers taking exams electronically.

Electronically administered exams are administered in a room with a maximum of eight people taking the exam at a time. The atmosphere is quieter, more relaxed, and questions are presented one at a time. In comparison, the traditional paper and pencil exams are taken in a room with as many as 400

people with the entire exam booklet in front of the examinee. This shift to more people taking the exams electronically has resulted in an average pass rate on electronic administered exams of 66%. As more people opt to take the exams electronically, the program anticipates continued increases in the pass rates.

Table 3 – 2012 Examination Pass Rates by Certification Level*

Exam Type	# Pass	# Fail	Passing Percentage
Class A	32	73	30%
Class B	71	40	64%
Class C	78	30	72%
Class D	133	71	65%
Class 4	10	37	21%
Class 3	29	77	27%
Class 2	77	79	49%
Class 1	165	102	62%
Class S	67	9	90%
Class T	8	1	89%
TOTAL	670	519	Average Pass Rate 57%

* Class A is the highest level of certification and Class D is the lowest level of treatment certification. Class 4 is the highest level of certification and Class 1 is the lowest level of distribution certification. Class S is a combined treatment Class D and distribution Class 1 for small systems serving a population of less than 3,300.

Operator Certification-Capacity Development Partnership

The Local Assistance Unit was developed by the Colorado Safe Drinking Water Program. The unit works in partnership with drinking water systems, technical assistance partners, and Division staff from various program areas. This partnership reaches operators and system owners on a “grassroots” level, to improve compliance, to enhance water quality, and to protect public health. The Local Assistance Unit's purpose is to provide training, technical assistance, and management support services to public water systems so they can strengthen their ability to supply safe drinking water to the public and to protect their source water.

The Local Assistance Unit and operator certification staff have worked together on the Joint Project Team for the 2015 Public Water System Training Strategy Administrative Framework Project. A part of the project was to identify the areas applicants were failing at the various exam levels. The top two areas of failure were math, at all levels, and the regulations.

The division has increased outreach to operators in an effort to address these areas of failure:

- The division sponsors no or low-cost trainings offered in multiple sites across the state with a focus on operations math.
- In 2012, Division coaching staff provided over 517 on-site, individual operator training sessions at no cost.
- Division compliance, operator certification, and engineering staff regularly present at conferences, seminars, and other training venues throughout the state on various regulatory compliance topics.
- Operator certification staff participated on the Rocky Mountain Section AWWA small systems education committee which provides training targeting small system operators.

Grandparenting

Colorado has not offered a “grandparenting” option since January 30, 2002. This was only available to water distribution operators and was valid for two years. All operators were required to obtain a standard or a restricted certification within two years of the effective date of the change to the Regulation. A restricted certification allows the operator to work only at the system where “grandparenting” was granted. There is one drinking water distribution system operator designated as an operator in responsible charge with a restricted certificate. All others granted a restricted certificate have retired or have passed the appropriate level exam and are now fully certified.

4. Enforcement

Facility Enforcement

Enforcement authority under 25-9-110(3), C.R.S. is granted to the Department to issue and enforce administrative orders and to impose civil penalties against owners for failure to operate systems under the supervision of a properly certified operator. There were eleven formal enforcement actions, Notices of Violation, taken against public water systems for violating the ORC requirement in 2012; ten were without penalty; one was with penalty for failure to comply with a Notice of Violation issued in 2011.

Operator Disciplinary Action

The Board has authority under 25-9-104(6) to establish criteria for the discipline or reprimand of an operator. Section 100.23.3 grants the Division the authority to investigate instances of possible misconduct by certified operators. There were three new disciplinary action complaints made during calendar year 2012. In addition, there were three complaints from 2011. All six were dismissed for lack of evidence of misconduct.

5. Certification Renewal

Certificate Renewal and Professional Development

Regulation 100 requires on-going professional development to renew certifications. Certificates must be renewed every three years. In 2012, there were 1,915 total renewals for water treatment and water distribution certificates. A late fee of \$50 is charged an operator who submits the renewal application after the expiration date of the certificate being renewed.

Individual operators are responsible for tracking and reporting their training units for certification renewal. Certificates of completion and transcripts are reviewed for fulfillment of the professional development requirements for renewal. There were 600 courses offered in 2012. Many of these classes were held multiple times within the year. The price for each course varies from free to hundreds of dollars. There currently is not a clearinghouse that tracks the number of classes, number of attendees, or costs of each course. Courses approved for training units are not ranked by certification level.

Trainers submit applications for training units which are approved by a committee of subject matter expert volunteers who review all applications and assign the training units. Upon approval, the course is entered into the database of approved training courses. A list of approved courses is available on-line at www.ocpoweb.com.

Expense Reimbursement Grant

Individual operators received reimbursements of \$230 for training costs granted through the Expense Reimbursement Grant (ERG) for first time and renewed certifications. The ERG was terminated in 2012, reimbursements were granted through May 31, 2012, to 44 operators for a total of \$10,120.

6. Resources Needed to Implement the Program

Colorado uniquely contracts the operator certification and examination aspect of the program to non-profit organizations comprised of subject matter experts who volunteer their time and expertise. These contractors subcontract daily operations to Total Events and Management Services, Inc. (TEAMS). TEAMS manages the Operator Certification Program Office, which oversees the daily operation of operator certification.

Income to support the Operator Certification Program Office originates from fees charged to applicants and operators as authorized by statute and Regulation 100 and covers the costs for management of this portion of the program. The subject matter experts volunteered over 3,000 hours in 2012 reviewing applications and training courses, proctoring exams, and completing other contractual activities. This is equivalent to approximately one and a half full-time employees.

The division has two full-time employees dedicated to operator certification. In addition, other division staff have assigned responsibilities for the classification of facilities, compliance, data system support, enforcement, engineering, management, and administrative support for the program. The Board's administrator and staff represent 0.15 full-time employees. Agency staff are not funded by operator certification fees, but are funded through state general funds and various federal grants.

Under the current organization, Colorado has sufficient resources to implement its operator certification program currently and into the future.

7. Recertification

Certificates are issued for three years. Once an operator's certificate has expired they are no longer certified. A certificate may be restored, through renewal, for up to two years after the expiration date. A certificate is automatically revoked after two years if it is not renewed and the person is treated as a new applicant for certification.

8. Stakeholder Involvement

Rulemaking

In May 2011, the Regulation revision process began. Approximately 8000 persons invited to participate in the stakeholder process. Those invited included certified operators, system owners, and other interested parties. There were approximately 60 persons who attended the rulemaking hearing in February 2012. The amendments to the regulations were adopted on April 24, 2012, and became effective on June 30, 2012.

A copy of the revised Regulation 100 is attached as Attachment 2.

WWFOCB Meetings

The WWFOCB held six meetings in 2012; all meetings are open to the public and participation is encouraged.

9. Program Review***Sunset Review***

Water and Wastewater Treatment Facility Operators, Article 9 of Title 25, C.R.S., underwent a legislative sunset review in 2012 by the Colorado Department of Regulatory Agencies. Recommendations made in the Sunset Report, with amendments, have been adopted by the Colorado legislature. A copy of the Sunset Review Report is included as Attachment 3. A copy of the revised statute is included as Attachment 4.

The program does not have a standardized process for conducting a periodic internal program review. The Division recognizes this is important to maintain transparency. The Division has reviewed its processes, procedures, and data management and will continue to implement changes to improve the program's efficiency and effectiveness.

Conclusions/Summary

Colorado's facility operator certification program is meeting the requirements for the nine major program components for community and non-transient non-community water systems in accordance with the Guidelines.

The program will work to assure integration of the operator in responsible charge and facility classification data into the Division's data systems. The goal is improved data management and comprehensive compliance tracking along with a more uniform program implementation.

Attachment 1

*Water and Wastewater Facility
Operators Certification Requirements*
Regulation No. 100
5 CCR 1003-2

Effective June 30, 2012

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATER AND WASTEWATER FACILITY OPERATORS CERTIFICATION
REQUIREMENTS

REGULATION NO. 100

5 CCR 1003-2

Amended:	May 28, 2002
Effective Date:	July 30, 2002
Amended:	March 25, 2003
Effective Date:	June 2, 2003
Amended:	October 26, 2004
Effective Date:	December 30, 2004
Emergency:	November 30, 2004
Amended:	November 30, 2004
Effective Date:	January 30, 2005
Amended:	October 25, 2005
Effective Date:	January 1, 2006
Amended:	February 14, 2006
Effective Date:	April 30, 2006
Amended:	July 31, 2007
Effective Date:	September 30, 2007
Amended:	April 28, 2009
Effective Date:	June 30, 2009
Amended:	September 29, 2009
Effective Date:	November 30, 2009
Amended:	November 24, 2009
Effective Date:	January 30, 2010
Amended:	November 29, 2011
Effective Date:	January 30, 2012
Amended:	April 24, 2012
Effective Date:	June 30, 2012

Table of Contents

100.1	AUTHORITY AND PURPOSE	1
100.2	DEFINITIONS	1
100.3	ADMINISTRATIVE FUNCTIONS	4
100.4	WATER TREATMENT FACILITY CLASSIFICATION	5
100.5	DOMESTIC WASTEWATER TREATMENT FACILITY CLASSIFICATION	6
100.6	INDUSTRIAL WASTEWATER TREATMENT FACILITY CLASSIFICATION	7
100.7	WATER DISTRIBUTION SYSTEM CLASSIFICATION	10
100.8	WASTEWATER COLLECTION SYSTEM CLASSIFICATION.....	11
100.9	QUALIFICATIONS FOR CERTIFICATION OF OPERATORS	12
100.10	APPLICATION FOR CERTIFICATION	15
100.11	EXAMINATIONS	16
100.12	EDUCATION AND CROSS EXPERIENCE SUBSTITUTED FOR EXPERIENCE REQUIREMENTS	17
100.13	CERTIFICATES	19
100.14	PROFESSIONAL DEVELOPMENT - TRAINING UNIT REQUIREMENTS FOR RENEWAL OF CERTIFICATION.....	21
100.15	CERTIFIED OPERATOR DUTIES.....	22
100.16	OPERATOR IN RESPONSIBLE CHARGE DUTIES	23
100.17	AUTHORIZATION FOR CONTINUED OPERATION OF WATER DISTRIBUTION AND WASTEWATER COLLECTION SYSTEMS	24
100.18	RESPONSIBILITIES OF WATER AND WASTEWATER FACILITY OWNERS	25
100.19	FEES	28
100.20	DISCIPLINARY PROCEEDINGS	29
100.21	HEARINGS AND APPEALS	31
100.22 – 29	RESERVED	31
100.30	STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; NOVEMBER, 2000 RULEMAKING	31
	BASIS AND PURPOSE.....	31

Background and Overview	31
Operator Classification and Qualification Issues	32
Minimum Experience for Entry Level Operators	32
Classification of Water and Wastewater Treatment Facilities	33
Classification of Water Distribution and Wastewater Collection Systems	33
Fees	33
Status of Existing Operators	34
Operator Responsibilities	34
Owner Responsibilities	34
Division Enforcement Procedures	35
Nonprofit Contractors Issues	35
100.31 FINDINGS IN SUPPORT OF EMERGENCY ADOPTION OF REGULATION NO. 100; DECEMBER 5, 2000	35
100.32 FINDINGS IN SUPPORT OF EMERGENCY ADOPTION OF REVISIONS TO REGULATION NO. 100.22.2(b); JANUARY 30, 2001	35
100.33 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; ARCH, 2001 RULEMAKING	36
BASIS AND PURPOSE	36
100.34 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; AUGUST, 2001 RULEMAKING	37
BASIS AND PURPOSE	37
100.35 FINDINGS AND STATEMENT OF BASIS AND PURPOSE FOR ADOPTION ON AN EMERGENCY BASIS OF REVISIONS TO REGULATION NO. 100 JANUARY, 2002 RULEMAKING	38
100.36 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; JANUARY, 2002 RULEMAKING	38
BASIS AND PURPOSE	38
100.37 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; APRIL, 2002 RULEMAKING	39
BASIS AND PURPOSE	39
100.38 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; MAY, 2002 RULEMAKING	39

BASIS AND PURPOSE	39
100.39 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: MARCH 2003 RULEMAKING	40
BASIS AND PURPOSE	40
100.40 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: OCTOBER 2004 RULEMAKING	40
BASIS AND PURPOSE	41
100.41 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE AND EMERGENCY FINDINGS: NOVEMBER 2004 RULEMAKING	42
BASIS AND PURPOSE	42
EMERGENCY FINDINGS	43
100.42 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: JULY 26, 2005 RULEMAKING	43
BASIS AND PURPOSE	43
Ground Water Systems: Subsections 100.4.2(a) through (c)	43
All Water Systems: Subsections 100.4.2(d) through (f)	43
Chemical Addition: Subsections 100.4.2(g) through 100.4.2(i)	44
Multiple Treatment Processes: Subsection 100.4.2.4.	45
100.43 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: FEBRUARY 14, 2006 RULEMAKING	45
BASIS AND PURPOSE	45
Definitions: Section 100.2.	45
100.44 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: APRIL 24, 2007 RULEMAKING; ADOPTED JULY 31, 2007; EFFECTIVE SEPTEMBER 30, 2007	47
BASIS AND PURPOSE	47
100.45 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: APRIL 28, 2009 RULEMAKING; ADOPTED APRIL 28, 2009; EFFECTIVE JUNE 30, 2009	48
BASIS AND PURPOSE	48
100.46 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: SEPTEMBER 29, 2009 RULEMAKING; ADOPTED SEPTEMBER 29, 2009; EFFECTIVE NOVEMBER 30, 2009	50
BASIS AND PURPOSE	50

100.47 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: NOVEMBER 2009 RULEMAKING; ADOPTED NOVEMBER 24, 2009; EFFECTIVE JANUARY 30, 2010	51
BASIS AND PURPOSE	51
100.48 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: NOVEMBER 2011 RULEMAKING ADOPTED NOVEMBER 29, 2011; EFFECTIVE JANUARY 30, 2012	51
BASIS AND PURPOSE	51
100.49 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: FEBRUARY 2012 RULEMAKING; ADOPTED APRIL 24, 2012; EFFECTIVE JUNE 30, 2012	52
BASIS AND PURPOSE	52

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

WATER AND WASTEWATER FACILITY OPERATORS CERTIFICATION REQUIREMENTS

REGULATION NO. 100

5 CCR 1003-2

100.1 AUTHORITY AND PURPOSE

100.1.1 Authority

This regulation is promulgated pursuant to the sections 25-9-101 through 110, C.R.S. and in particular section 25-9-101, C.R.S.

100.1.2 Article 9 of Title 25, C.R.S., requires that every water treatment facility, domestic or industrial wastewater treatment facility, wastewater collection system and water distribution system be under the supervision of a certified operator, holding a certificate in a class equal to or higher than the class of the facility or system.

Certification under this statute is available to all persons who meet the minimum qualifications of a given classification as described in section 100.9. Operators are encouraged to apply for certification in the highest classification consistent with their qualifications.

100.2 DEFINITIONS

- (1) "BAG OR CARTRIDGE FILTRATION" means a filtration system consisting of a fixed filter housing into which flexible (bag) or rigid (cartridge) filters are inserted. Both bag and cartridge filters are disposable and cannot be backwashed or re-used.
- (2) "BOARD" means the Colorado Water and Wastewater Facility Operators Certification Board or its designee.
- (3) "CERTIFICATE" means the written document issued by the Board or its designee stating that the person named thereon has met the requirements for operating the specified class of facility or system.
- (4) "CERTIFIED OPERATOR" means the person who has responsibility for the operation of any water and wastewater facility and is certified in accordance with the provisions of this regulation. For purposes of this regulation, "responsibility for the operation" means making process control and/or system integrity decisions about water quality or quantity that may affect public health or the environment.
- (5) "CLASSIFICATION OF A WATER OR WASTEWATER FACILITY" means the level of operational complexity and/or size of a water or wastewater facility as determined by the Division.
- (6) "COLORADO DISCHARGE PERMIT SYSTEM REGULATION (5 CCR 1002-61)" means the regulation promulgated by the Colorado Water Quality Control Commission in order to ensure the implementation of the Colorado Water Quality Control Act (Title 25, Article

5, sections 501 through 505, Colorado Revised Statutes) which are designated to be in conformity with that act and with the federal Clean Water Act.

- (7) "COLORADO PRIMARY DRINKING WATER REGULATIONS (5 CCR 1003-1)" means the regulation promulgated by the Colorado Water Quality Control commission in order to ensure the safety of public drinking water supplies and to enable the State of Colorado to assume responsibility for enforcing the standards established by the federal Safe Drinking Water Act as amended.
- (8) "COMMUNITY WATER SYSTEM" means a public water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents.
- (9) "CONVENTIONAL FILTRATION TREATMENT" means a series of processes including coagulation, flocculation, sedimentation, and filtration resulting in substantial particulate removal.
- (10) "DEPARTMENT" means the Colorado Department of Public Health and Environment.
- (11) "DIRECT FILTRATION TREATMENT" means a series of processes including coagulation and filtration, but excluding sedimentation, resulting in substantial particulate removal.
- (12) "DIVISION" means the Water Quality Control Division within the Colorado Department of Public Health and Environment.
- (13) "DOMESTIC WASTEWATER TREATMENT FACILITY" means any facility or group of units used for the treatment of domestic wastewater or for the reduction and handling of solids and gases removed from such wastes, whether or not such facility or group of units is discharging into state waters. "Domestic wastewater treatment facility" specifically excludes individual sewage disposal systems.
- (14) "INDUSTRIAL WASTEWATER TREATMENT FACILITY" means any facility or group of units used for the pretreatment, treatment, or handling of industrial waters, wastewater, reuse water, and wastes that are discharged into state waters. "Industrial wastewater treatment facility" includes facilities that clean up contaminated ground water or spills; except that such term does not include facilities designed to operate for less than one year or facilities with in-situ discharge.
- (15) "NON-COMMUNITY WATER SYSTEM" means a public water system that is not a community water system.
- (16) "NON-TRANSIENT NON-COMMUNITY WATER SYSTEM" means a public water system that is not a community water system and that regularly serves at least 25 of the same individuals for over 6 months per year.
- (17) "OPERATOR" means any person who performs or supervises activities and/or tasks pertinent to controlling the operation of a water or wastewater facility.
- (18) "OPERATOR IN RESPONSIBLE CHARGE" means the person designated by the owner of the water or wastewater facility to be the certified operator(s) who has ultimate responsibility for decisions regarding the daily operational activities of the facility that will directly impact the quality and/or quantity of drinking water, treated wastewater, or treated effluent.

- (19) "PASSIVE WASTEWATER TREATMENT" means treatment in which chemical, mechanical, or biological treatment techniques are not utilized.
- (20) "PLANT DESIGN FLOW" means the maximum flow rate (water) or the hydraulic capacity (wastewater) approved for a water or wastewater treatment facility by the Division.
- (21) "PRIMARY DRINKING WATER REQUIREMENT" means any of the set of enforceable Maximum Contaminant Levels for drinking water regulated under the Colorado Primary Drinking Water Regulations (5 CCR 1003-1).
- (22) "PUBLIC WATER SYSTEM" means a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves an average of at least twenty-five individuals, at least 60 days out of the year. Such term includes:
- (A) Any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such systems, and
 - (B) Any collection or pretreatment storage facilities not under such control which are used primarily in connection with such systems.
- Such term does not include any "special irrigation district." A public water system is either a "community water system" or a "non-community water system."
- (23) "RESPONSIBLE PERSON" means an individual, designated by the owner of a Class 2 industrial wastewater facility, who is specifically responsible for overseeing the facility's operation and for ensuring compliance with the facility's discharge permit and who receives relevant annual training with respect to these duties including, as appropriate, specific measures used to meet effluent limits, monitoring, inspection, planning, reporting, and documentation requirements.
- (24) "SECONDARY DRINKING WATER STANDARD" means any of the set of Secondary Contaminant Level guidelines for drinking water regulated under the Colorado Primary Drinking Water Regulations (5 CCR 1003-1).
- (25) "TRAINING UNIT" means the credit given for an increment of training approved as applicable to the fulfillment of certification renewal requirements.
- (26) "TRANSIENT NON-COMMUNITY WATER SYSTEM" means a non-community public water system that does not regularly serve at least 25 of the same individuals for over six months per year.
- (27) "VALIDATED EXAMINATION" means an examination that is independently reviewed by subject matter experts to ensure that the examination is based on a job analysis and is related to the classification of the system or facility.
- (28) "WASTEWATER COLLECTION SYSTEM" means a system of pipes, conduits, and associated appurtenances that transports domestic wastewater from the point of entry to a domestic wastewater treatment facility. The term does not include collection systems that are within the property of the owner of the facility.
- (29) "WASTEWATER TREATMENT FACILITY" means either a domestic wastewater treatment facility or an industrial wastewater treatment facility.

- (30) "WATER AND/OR WASTEWATER FACILITY" means a water treatment facility, domestic wastewater treatment facility, industrial wastewater treatment facility, water distribution system, or wastewater collection system.
- (31) "WATER DISTRIBUTION SYSTEM" means any combination of pipes, tanks, pumps, or other facilities that delivers water from a source or treatment facility to a consumer.
- (32) "WATER TREATMENT FACILITY" means the facility or facilities within the water distribution system that can alter the physical, chemical, or bacteriological quality of the water.

100.3 ADMINISTRATIVE FUNCTIONS

100.3.1 In carrying out its responsibilities to administer the operator certification program pursuant to Article 9 of Title 25, C.R.S., the Board or its designee may carry out any of the following duties, including but not limited to:

- (a) administering the operator certification program;
- (b) collecting program fees for administration of the operator certification program;
- (c) administering validated examinations for operator certification;
- (d) maintaining records of certified operators;
- (e) maintaining records of water and wastewater facilities;
- (f) notifying operators of expiration of certification;
- (g) providing information on accredited training programs and training requirements;
- (h) preparing and/or furnishing validated examinations and related materials;
- (i) collecting fees for examinations and administration of examinations;
- (j) setting times, dates, and places for holding examinations;
- (k) ensuring the accurate and unbiased grading of examinations;
- (l) evaluating work experience of applicants;
- (m) evaluating and approving training units for renewal of certification;
- (n) evaluating and approving requests for certification based upon reciprocity;
- (o) recording results of examinations;
- (p) notifying applicants of their examination results;
- (q) recommending issuance of certificates or issuing certificates in accordance with Board criteria;
- (r) conducting failed exam reviews; or

- (s) preparing and distributing annual reports.

100.4 **WATER TREATMENT FACILITY CLASSIFICATION**

100.4.1 Water treatment facilities shall be classified by the Division in accordance with the following four classes; Class D, Class C, Class B, or Class A. Class A is the highest level of classification and Class D is the lowest level of classification. The Division may make changes in classification in accordance with the needs created by particular complexities of any specific water treatment facility based on consideration of facility specific factors, including, but not limited to:

- (a) special features of design;
- (b) source of supply which make operation more difficult than normal; or
- (c) a combination of such conditions.

100.4.2 Table – Criteria for Water Treatment Facility Classes A, B, C, and D

Description of the Facility	Plant Design Flow (in MGD)			
Community Water Systems, Non-Transient Non-Community Water systems, and Transient Non-Community Water Systems.	Below 2	2 – 5	5.01 – 9.99	10 or more
<u>Ground Water Systems</u>	.	.	.	.
(a) Ground water source with no treatment or with no additional treatment beyond chlorine disinfection.	D	D	C	B
(b) Ground water source with ultraviolet or ozone disinfection.	D	C	C	B
(c) Ground water source utilizing chemical addition and/or a treatment technology (for example, ion exchange, reverse osmosis, membrane filters, or activated carbon) for the specific purpose of meeting secondary drinking water standards.	C	C	B	B
<u>All Water Systems</u>	.	.	.	.
(d) Any source utilizing bag or cartridge filtration to comply with primary drinking water requirements.	D			
(e) Any source utilizing a treatment technology (for example, slow sand, diatomaceous earth, membrane filtration, ion exchange, activated carbon filtration, reverse osmosis) with disinfection to comply with primary drinking water requirements and which is not listed in sections 100.4.2(d) or 100.4.2(f) of this regulation.	C	B	B	A

(f) Any source utilizing conventional or direct filtration with disinfection to comply with primary drinking water requirements.	B	A	A	A
<u>Chemical Addition</u>	.	.	.	.
(g) Any source utilizing chemical treatment for the specific purpose of complying with secondary drinking water standards.	C	C	B	B
(h) Any source utilizing additional chemical treatment, with the exception of corrosion control in the distribution system and disinfection for the specific purpose of complying with primary drinking water requirements.	B	B	A	A
(i) Any source utilizing chemical treatment for the specific purpose of controlling corrosion (i.e., lead and copper) in the distribution system.	C	C	B	B
(j) Any source utilizing fluoridation.	C	C	C	B
<u>Other</u>	.	.	.	.
(k) Water vending machines connected to a public water system that does not currently meet primary drinking water requirements.	.	C (all sizes)	.	.

100.4.3 The classification of any water treatment facility may be changed at the discretion of the Division by reason of changes in any condition or circumstance on which the classification was predicated.

100.4.4 Any drinking water treatment facility that utilizes a combination of two or more of the treatment processes described in section 100.4.2 of this regulation shall be classified in accordance with the highest level of treatment process utilized.

100.5 DOMESTIC WASTEWATER TREATMENT FACILITY CLASSIFICATION

100.5.1 Domestic wastewater treatment facilities shall be classified by the Division in accordance with the following four classes: Class D, Class C, Class B, or Class A. Class A is the highest level of classification and Class D is the lowest level of classification. The Division may make changes in classification in accordance with the needs created by particular complexities of any specific domestic wastewater treatment facility based on consideration of facility specific factors, including, but not limited to:

- (a) design features or other characteristics that make the facility more difficult to operate than usual;
- (b) facility design flow;
- (c) the character and volume of wastes to be treated;
- (d) the facility's design being approved under the Department's variance procedure;

- (e) a waste unusually difficult to treat;
- (f) flow conditions, use classifications and/or water quality standards assigned to the waters receiving the treated effluent that require an unusually high degree of plant operational control in order to meet permit conditions; or
- (g) combinations of such conditions or circumstances.

100.5.2 Table – Criteria for Domestic Wastewater Treatment Facility Classes A, B, C, and D

<u>Description of the Facility</u>	<u>Plant Design Flow (in MGD)</u>				
	<u>Below 0.5</u>	<u>0.5-1.00</u>	<u>1.01-2.00</u>	<u>2.01-4.00</u>	<u>Above 4.00</u>
(a) Waste stabilization ponds, including aerated and non-aerated types	D	C	C	B	B
(b) Trickling filter or rotating biological contactor	C	C	B	B	A
(c) Extended aeration process sequencing batch reactors designed to operate in the extended aeration loading range.	C	B	B	B	A
(d) All other activated sludge processes and extended aeration where used beyond secondary treatment (i.e., nitrification) and chemical and/or physical processes providing a high degree of treatment other than polishing ponds.	B	B	B	B	A
(e) Recirculating sand filtration	D	C	C	C	C
(f) Wetlands used as a part of the water treatment process	Will be classified in alignment with the last treatment process prior to release of the effluent into the wetland for further treatment.				

100.5.3 The classification of any domestic wastewater treatment facility may be changed at the discretion of the Division by reason of changes in any condition or circumstance on which the classification was predicated.

100.5.4 Any domestic wastewater treatment facility that utilizes a combination of two or more of the treatment processes described in section 100.5.2 of this regulation shall be classified in accordance with the highest level of treatment process utilized.

100.6 INDUSTRIAL WASTEWATER TREATMENT FACILITY CLASSIFICATION

100.6.1 Classification

- (a) Pursuant to section 25-9-104(4), C.R.S., industrial wastewater treatment facilities shall be classified by the Board as Class 1 or Class 2 facilities. Class 2 facilities shall be exempt from the requirement to operate under the supervision of a certified operator. Facilities not classified by the Board as Class 2 facilities shall be classified as Class 1 facilities.
- (b) Class 2 Facilities
 - (i) Class 2 facilities shall include facilities:
 - (A) which discharge only pursuant to an industrial stormwater permit, a construction stormwater permit, or a municipal stormwater permit;
 - (B) which discharge pursuant to a Colorado Discharge Permit System general industrial permit for Water Treatment Plant Wastewater Discharge, provided that the permitted water treatment facility is under the supervision of a properly certified water treatment facility operator who is specifically responsible for overseeing the facility's operation and for ensuring compliance with the facility's discharge permit, including monitoring and reporting requirements; or
 - (C) which discharge pursuant to a Colorado Discharge Permit System general industrial permit for the following: Construction Dewatering Activities; Aquatic Animal Production with Continuous and Intermittent Discharge; Sand and Gravel Process Water and Stormwater; Minimal Industrial Discharge; Subterranean Dewatering and Well Development; Hydrostatic Testing of Pipelines, Tanks and Similar Vessels; Non-Contact Cooling Water; Pesticides; or Commercial Washing of Outdoor Structures that meet both of the following conditions:
 - (I) the quality of the wastewater discharged is such that discharge permit limits can be met utilizing only passive treatment or no treatment; and
 - (II) the facility has designated a responsible person who is specifically responsible for overseeing the facility's operation and for ensuring compliance with the facility's discharge permit, including monitoring and reporting requirements.
 - (ii) If at any time the facility does not meet the conditions of section 100.6.1(b)(i), the facility must notify the Division, in writing, and begin operating under the supervision of an appropriately certified operator within 30 days of the change in operations.
 - (iii) The Board has the authority to reclassify any facility if the facility fails to comply with the requirements of its discharge permit or if the facility's operational practices result in a direct, negative impact on the public health or the environment.
 - (iv) A facility which discharges pursuant to either an individual industrial wastewater discharge permit or a general industrial permit not listed in 100.6.1(b)(i) above may request classification by the Board as a class 2 facility.

- (A) Considering the criteria in sections 25-9-104(4)(a) through (d), C.R.S., the Board may approve class 2 classification for such a facility where it determines that the facility has demonstrated that:
 - (I) the quality of the wastewater discharged is such that discharge permit limits can be met utilizing only passive treatment or no treatment, and
 - (II) the facility has designated a responsible person who is specifically responsible for overseeing the facility's operation and for ensuring compliance with the facility's discharge permit, including monitoring and reporting requirements.
 - (B) The Division shall evaluate a written request from the facility and shall provide the Board with a classification recommendation based upon the criteria in part (A) of this subsection and upon the criteria listed in sections 25-9-104(4)(a) through (d), C.R.S.
 - (C) The Board shall approve or deny such classification requests at an adjudicatory hearing to be held at a regularly scheduled Board meeting.
 - (D) Each facility classified as a class 2 facility under the authority of this subsection shall re-certify in writing, by December 31st of each year, that the conditions in part (A) of this subsection continue to be met.
 - (E) The Board has the authority to reclassify any facility if the facility fails to comply with the requirements of its discharge permit or if the facility's operational practices result in a direct, negative impact on the public health or the environment.
- (c) Class 1 Industrial Wastewater Treatment Facilities.
- Class 1 industrial wastewater treatment facilities shall be further classified by the Division in accordance with the following four classes: Class D, Class C, Class B, or Class A. Class A is the highest level of classification and Class D is the lowest level of classification. The Division may make changes in classification in accordance with the needs created by particular complexities of any specific industrial wastewater treatment facility based on consideration of facility specific factors, including, but not limited to:
- (a) design features or other characteristics that make the plant more difficult to operate;
 - (b) treatment of a waste that is unusually difficult to process adequately;
 - (c) flow conditions, use classifications and/or water quality standards assigned to the waters receiving the treated effluent requiring an unusually high degree of plant operation control in order to meet permit conditions; or
 - (d) any combination of the above conditions or circumstances.
- 100.6.2 Table – Criteria for Industrial Wastewater Treatment Facility Classes A, B, C, and D (under the “Class 1” Category)

CLASSIFICATION	TREATMENT PROCESS ¹
Class A	Chemical conversion (e.g., cyanide destruction, hexavalent chromium reduction); Ion exchange; Electrolytic conversion; Filtration by reverse osmosis.
Class B	Chemical coagulation and flocculation adsorptive processes (e.g., activated carbon); Ultrafiltration; Microfiltration; Chemical precipitation; Suspended, fixed, or a combination of biological processes (e.g., activated sludge, trickling filters, rotating biological contactors).
Class C	Standard clarification (including waste ponds for settling that regularly utilize chemical addition); Filtration (e.g., mixed media, pressure); Neutralization; Solids Dewatering (e.g., sand or surfaced drying beds, mechanical); Airstripping; Sludge Digestion.
Class D	Particulate settling ponds; Simple gravity flow filtration without chemical addition; Physical water/gas separation without chemical addition; Cooling water discharge without chemical addition.

¹ Treatment processes are listed as examples and are not all inclusive.

100.6.3 The classification of any Class 1 industrial wastewater treatment facility may be changed at the discretion of the Division by reason of changes in any condition or circumstances on which the classification was predicated.

100.6.4 Any Class 1 industrial wastewater treatment facility that regularly utilizes a combination of two or more of the treatment processes described in section 100.6.1(d) of this regulation (Table) shall be classified in accordance with the highest level of treatment process utilized.

100.7 WATER DISTRIBUTION SYSTEM CLASSIFICATION

100.7.1 Water distribution systems shall be classified by the Division in accordance with the following four classes: Class 1, Class 2, Class 3 or Class 4. Class 4 is the highest level of classification and Class 1 is the lowest level of classification. The Division may make changes in classification in accordance with the needs created by particular complexities of any specific water distribution system based on consideration of system specific factors, including, but not limited to:

- (a) unusual factors affecting the complexity of transmission, mixing of sources, or potential public health hazards;
- (b) size and/or length of the system's water mains;

- (c) whether or not there are automatic control valves, including but not limited to, pressure reducing or altitude valves;
- (d) number and/or size and/or types of meters;
- (e) existence of storage tanks in the system;
- (f) existence of multiple pressure zones;
- (g) maximum pressure in the system;
- (h) existence of booster stations;
- (i) number of service connections; or
- (j) quantity of water distributed.

100.7.2 Table – Criteria for Water Distribution System Classes 1, 2, 3, and 4

<u>CLASS</u>	<u>POPULATION SERVED</u>
Class 1	3,300 or Less
Class 2	3,301 - 25,000
Class 3	25,001 – 100,000
Class 4	Over 100,000

100.7.3 The classification of any water distribution system may be changed at the discretion of the Division by reason of changes in any condition or circumstances on which the classification was predicated.

100.7.4 Section 100.7 only applies to distribution systems that serve a public water system.

100.8 WASTEWATER COLLECTION SYSTEM CLASSIFICATION

100.8.1 Wastewater collection systems shall be classified by the Division in accordance with the following four classes: Class 1, Class 2, Class 3 or Class 4. Class 4 is the highest level of classification and Class 1 is the lowest level of classification. The Division may make changes in classification in accordance with the needs created by particular complexities of any specific wastewater collection system based on consideration of facility specific factors, including, but not limited to:

- (a) any unusual factors affecting the complexity of collection;
- (b) whether there is the potential for mixing of sources; or
- (c) the presence of any potential public health hazards.

100.8.2 Table – Criteria for Wastewater Collection System Classes 1, 2, 3, and 4

CLASS	POPULATION SERVED
Class 1	3,300 or Less
Class 2	3,301 - 25,000
Class 3	25,001 – 100,000
Class 4	Over 100,000

100.8.3 The classification of any wastewater collection system may be changed at the discretion of the Division for changes in any condition or circumstances on which the classification was predicated.

100.9 QUALIFICATIONS FOR CERTIFICATION OF OPERATORS

100.9.1 Continuity of Certification

- (a) Operators certified under the system of classification and certification in place prior to January 30, 2001, including distribution and collection system operators who passed the voluntary examination administered by the Colorado Water Distribution and Wastewater Collection Certification Council, shall be deemed compliant with this provision and fully capable of operating facilities as described herein.
- (b) Operators holding Class 3 water distribution or wastewater collection certifications issued prior to January 1, 2008 shall be deemed to have met the requirements for the Class 4 certification and shall be issued Class 4 certifications.

100.9.2 Basic Requirements for Certification by Examination

- (a) Applicants shall be evaluated by the Board or its designee as to education, experience, and knowledge related to the classification level for which the applicant seeks to be certified.
- (b) An applicant must pass a validated examination designated for the type and level of facility for which application is being made.
- (c) To qualify to sit for an examination, an applicant must meet the minimum education requirements, the minimum experience or cross-experience requirements, and the prior certification requirements as set forth in section 100.9.8.
- (d) Class T certification is only valid for operating facilities that meet all of the following criteria:
 - (i) are classified as transient non-community public water systems;
 - (ii) that draw water from ground water sources not under the direct influence of surface water;
 - (iii) serve fewer than 100 individuals per day;

- (iv) utilize treatment consisting only of non-gaseous chlorine disinfection; and
 - (v) would be classified as a Class “D” water treatment facility and as a Class “1” water distribution system under the provisions of this regulation.
- (e) Class S Water certification is only valid for operating facilities that meet all of the following criteria:
- (i) serve no more than 3,300 persons; and
 - (ii) would be classified as a Class “D” water treatment facility and as a Class “1” water distribution system under the provisions of this regulation.
- (f) Class S Wastewater certification is only valid for operating facilities that meet all of the following criteria:
- (i) serve no more than 3, 300 persons; and
 - (ii) would be classified as a Class “D” wastewater treatment facility and as a Class “1” wastewater collection system under the provisions of this regulation.

100.9.3 Minimum Educational Requirements for Certification by Examination

- (a) Applicants must have a high school diploma or a general equivalency diploma (GED), except as provided in section 100.9.3(c)
- (b) Experience and relevant training may substitute for a high school diploma or GED. Applicants substituting experience and relevant training for the high school diploma or GED shall:
 - (i) have an additional six (6) months of qualifying experience; and
 - (ii) demonstrate the completion of 1.0 training units in a course approved as a substitute for entry-level experience requirements.
- (c) Applicants for certification as Class D, Class 1, Class S, or Class T operators of water or wastewater facilities who are enrolled in the last semester of Board approved courses or programs which are specifically designed to prepare secondary students to operate water or wastewater facilities may be approved to take the examination before earning a high school diploma.
 - (i) Such an approval shall be based on a case-by-case determination that such courses or programs are directly and specifically relevant to the operation of water and wastewater facilities.
 - (ii) After passing the examination, the certificate will be issued upon submitting proof of the high school diploma to the Board or its designee.

100.9.4 Experience Determinations for Certification by Examination

- (a) No more than one year of experience will be credited for employment/activities during any one calendar year.

- (b) For water or wastewater facilities that require less than a full time operator for proper operation, the experience of an operator of such a facility who works less than half time will be counted as half-time experience; the experience of an operator of such a facility who works half-time or more will be counted as full-time experience.
- (c) The aggregate time spent operating multiple facilities shall be considered in any determination of whether to credit full-time experience or half-time experience.
- (d) Experience obtained in the operation of a seasonal water or wastewater facility will be credited only for that portion of the year during which the facility is in operation.
- (e) Except as described in section 100.9.9 below, the certification examination application deadline is the experience cut-off date in determining whether an operator has the required experience to take a certification examination at a particular level.
- (f) To meet the experience requirement to test for a particular level of certification, the experience relied upon does not have to be at the level of the examination for which application is being made.

100.9.5 Evaluation of Experience. For purposes of this section, domestic and industrial wastewater treatment facility experience shall be considered interchangeable. In evaluating experience of operators the Board or its designee will be guided by:

- (a) whether and to what degree the experience required technical knowledge of the operation of a water or wastewater facility;
- (b) whether and to what degree the experience was actual on-site operating experience with the daily operational aspects of a facility that could affect water quality or quantity; and
- (c) whether or not the experience included the responsible charge of a water or wastewater facility.

100.9.6 Once specific experience or relevant training is credited toward the satisfaction of either the experience or education requirements of this section, that same experience and/or training may not be further credited to meet other requirements of this section.

100.9.7 Prior Certification Requirements. To qualify to sit for an examination, an applicant must hold a certification for the same certification category (water treatment facility, domestic or industrial wastewater treatment facility, distribution system or collection system) and in the class immediately below the class for which application is being made. Prior certification requirements are shown in the table below.

100.9.8 Table - Prior Certification and Experience Requirements

Certification Class	Prior Certification Required ¹	Minimum Experience Required
Class T	None	No minimum experience requirement

Class D or Class 1	None	1 Month
Class C	Class D or Class S	2 Years
Class 2	Class 1 or Class S	2 Years
Class B	Class C	3 Years
Class 3	Class 2	3 Years
Class A	Class B	4 Years
Class 4	Class 3	4 Years

¹ Prior certification must be for the same certification category as that of the examination being applied for.

100.9.9 Special Rules for Satisfying the Minimum Experience Requirements for Class D, Class 1, Class S and Class T Certifications:

- (a) Applicants for certification as Class D, Class1, Class S, or Class T operators of water or wastewater facilities may be approved to take the examination before accruing the necessary experience for the issuance of a certificate.
- (b) After passing the examination, the certificate will be issued upon showing completion of satisfactory experience to the Board or its designee.
- (c) The required experience may be accrued under the supervision of a certified operator, through on the job training with a certified operator, or through an apprenticeship with a contract operator who is certified. The required experience may also be accrued through the successful completion of a training course or course of study, approved by the Board or its designee, which is designed to prepare the examinee to operate Class D or Class 1 facilities.
- (d) Any education courses used to satisfy the basic experience requirement for a Class D, Class 1, Class S, or Class T certification may not be used to satisfy the certification renewal requirements for that same certification.

100.10 APPLICATION FOR CERTIFICATION

100.10.1 A person desiring to be certified to operate a water or wastewater facility shall file an application with the Board or its designee.

100.10.2 The Board shall designate the number of examination cycles during each calendar year.

100.10.3 For each examination cycle, the Board or its designee shall specify an application deadline.

100.10.4 All applications for certification examinations shall be made on forms provided by the Board or its designee.

- 100.10.5 Completed application materials and fees must be received by the Board or its designee on or before the application deadline for each examination cycle.
- 100.10.6 While an applicant may apply for more than one examination during a cycle, that applicant may apply for only one level of certification for each certification category (water treatment facility, domestic or industrial wastewater treatment facility, distribution system or collection system).
- 100.10.7 The applicant must specify examination type (i.e. water, domestic or industrial wastewater, distribution, collection, small water system, or small wastewater system), level of certification sought, examination date, and testing location and may only take the specified examination once during each examination cycle.
- 100.10.8 The Board or its designee shall review applications and supporting documents, determine the eligibility of applicants to sit for the examination, and notify the applicants of their status. Any application disapproval notification shall specify the reason(s) the application does not meet the minimum requirements.
- 100.10.9 If an application is disapproved, the applicant may request a re-review of the application, including consideration of any clarifying information that the applicant may choose to submit regarding the identified basis for disapproval.
- (a) Any such request for re-review must be received by the Board or its designee within two weeks of the date of the disapproval notification letter.
 - (b) All additional factual information supporting the application must be received with the re-review request.
- 100.10.10 If an application is still disapproved after re-review, the applicant may appeal this determination to the Board.
- (a) Any such appeal must be received in the Board's office within two weeks of the date of the second disapproval notification letter.
 - (b) No new factual information will be accepted during the Board appeal process, except for good cause shown.

100.11 EXAMINATIONS

- 100.11.1 The Board or its designee shall oversee the preparation and administration of validated examinations to be used in determining whether or not the applicant has the necessary skills, knowledge, ability and judgment appropriate for the level of certification sought.
- 100.11.2 Examinations shall be held at places and times set by the Board or its designee. Advance announcements of the date and locations of examinations shall be made by the Board or its designee.
- 100.11.3 All examinations shall be written or administered electronically, except in such cases as the Board or its designee decide, on a case-by-case basis, represent proper exceptions to this requirement.
- 100.11.4 All examinations will be graded by the Board or its designee, and the applicants shall be notified of the results.

100.11.5 Examinees shall be provided an analysis of their examination performance indicating the level of knowledge demonstrated for each topic tested.

100.11.6 Separate validated examinations will be prepared for each type and level of certification available. The appropriate range and balance of examination material shall be developed from formal job analyses and the need-to-know criteria resulting from such analyses.

100.11.7 Applicants who fail an examination may retest during subsequent, regularly scheduled examination cycles upon complying with all applicable application procedures including the payment of appropriate fees.

100.11.8 Any form of cheating on the part of an applicant will invalidate the results of his or her examination and may result in the applicant being barred from taking examinations for a period of 1 to 5 years, as determined by the Board following a hearing pursuant to Article 4 of Title 24, C.R.S.

100.12 EDUCATION AND CROSS EXPERIENCE SUBSTITUTED FOR EXPERIENCE REQUIREMENTS

100.12.1 Substitution of Education for Experience Requirements

- (a) Post-secondary education may also be substituted for the experience requirements of section 100.9 on the basis of successful completion of formal academic credit hours, as approved by the Board or its designee in accordance with section 100.12.2, for all or a portion of an academic year. For education substitution for experience, academic credit hours shall be calculated as follows:
 - (i) 15 semester hours = $\frac{1}{2}$ academic year = 6 months experience; 15 quarter hours = $\frac{1}{3}$ academic year = 4 months experience;
 - (ii) Training units: 300 contact hours or 30 training units = 15 quarter hours = 4 months experience;
 - (iii) thirty (30) semester hours and/or forty-five (45) quarter hours shall constitute one (1) year's formal education and may be substituted for one (1) year of experience.
- (b) Consideration of Field(s) of Study
 - (i) Credit for up to fifty percent (50%) of the applicable experience requirement of section 100.9 may be granted for satisfactorily completing structured programs of study in a degree or certificate granting educational institution or equivalent for technically oriented programs which the Board has determined are directly relevant to the operation of water and wastewater facilities, including but not limited to post high school education in the environmental control field, engineering or related science. Experience credit shall be granted based upon the number of academic years required to complete the program, in accordance with subsection 100.12.1(a).
 - (ii) Credit for up to twenty-five (25%) of the applicable experience requirement of section 100.9 may be granted for satisfactorily completing structured programs of study in a degree granting educational institution

or equivalent, regardless of field of study. Experience credit shall be granted based upon the number of academic years required to complete the program, in accordance with subsection 100.12.1(a).

- (c) In instances where an approved degree or certificate program has not been completed, credit for up to fifty percent (50%) of the applicable experience requirement of section 100.9 may be granted for the completion of individual technically oriented courses as approved by the Board or its designee as relevant to the operation of water and wastewater facilities, including but not limited to post high school education in the environmental control field, engineering or related science, in accordance with subsection 100.12.1(a).
- (d) At least fifty percent (50%) of any experience requirement of section 100.9 of this regulation shall be met by actual on-site operating experience in a water or wastewater facility, except that Class D, Class 1, and Class S applicants may satisfy the experience requirements exclusively with formal academic education credits or training units, in accordance with subsection 100.9.

100.12.2 Approval of Training, Educational Courses, and Institutions

- (a) The Board or its designee may approve, for purposes of substituting education for experience, courses or programs which are specifically designed to prepare secondary students to operate water or wastewater facilities. Such an approval shall be based on a case-by-case determination that such courses or programs are directly and specifically relevant to the operation of water and wastewater facilities.
- (b) Approval of technically-oriented courses or programs, for purposes of substituting education for experience, shall be determined by the Board or its designee based on a determination that such courses or programs are directly relevant to the operation of water and wastewater facilities. Such courses and programs may include, but are not limited to, post-secondary education in the environmental control field, engineering, microbiology, chemistry, or other related science.
- (c) Approval of educational institutions for purposes of substituting education for experience shall be determined by the Board or its designee based on accreditation by recognized regional associations for such institutions in the United States. For educational institutions outside the United States, the applicant shall be required to establish to the satisfaction of the Board or its designee the equivalency and suitability of the courses of study claimed for credit.
- (d) Other educational programs, including but not limited to, specialized operator training courses, seminars, workshops, correspondence or computer courses, and technical conferences, may be credited toward education for purposes of substitution for experience as approved by the Board or its designee. Such programs will receive credit in training units on the following basis:
 - (i) Ten (10) contact hours shall be required to equal one training unit. A contact hour means a classroom or supervised hour of attendance or hour of participation, recognized by the Board as a training unit, successfully completed by an applicant.

- (ii) Three (3) training units shall equal one semester credit hour or two training units shall equal one quarter credit hour for purposes of equivalency.

100.12.3 Substitution of Cross-Experience for Experience Requirements

- (a) Cross-experience may be substituted for the experience requirements of section 100.9 for certification as a Class C, Class B, or Class A water treatment facility operator, domestic or industrial wastewater treatment facility operator; or for a Class 2, Class 3, or Class 4 water distribution or wastewater collection system operator, except that at least fifty percent (50%) of any experience requirement of section 100.9 shall be met by actual on-site operating experience in the specific certification category, water or wastewater, for which application is being made.
- (b) For the purpose of this section, “cross-experience” means that:
 - (i) qualifying experience as an operator in a water treatment facility may be substituted for up to fifty percent (50%) of the experience requirement for certification as an operator of a wastewater treatment facility;
 - (ii) qualifying experience as an operator in a wastewater treatment facility may be substituted for up to fifty percent (50%) of the experience requirement for certification as an operator of a water treatment facility;
 - (iii) qualifying experience as an operator in a water distribution system may be substituted for up to fifty percent (50%) of the experience requirement for certification as an operator of a wastewater collection system; or
 - (iv) qualifying experience as an operator in a wastewater collection system may be substituted for up to fifty percent (50%) of the experience requirement for certification as an operator of a water distribution system.

100.13 **CERTIFICATES**

100.13.1 New Certificates

- (a) Upon written notification that they have passed the certification examination and are eligible for certification, successful examinees must pay the required administration and applicable late fees as listed in section 100.19.2 and complete the following, if required:
 - (i) demonstrate fulfillment of the experience requirements for Class D, Class 1, Class S and Class T certification pursuant to section 100.9.
 - (ii) submit a copy of a high school diploma pursuant to section 100.9.3(c).
- (b) Upon satisfactory fulfillment of the requirements of section 100.13.1, the Board or its designee shall award to the applicant a certificate designating the appropriate certification level.
- (c) Newly awarded operator certificates shall be valid for three (3) years from the date of the certification eligibility notification letter unless revoked or suspended as provided in section 100.23 of these regulations.

- (d) An applicant shall complete the certification process by paying the administration and applicable late fees as listed in section 100.19.2 within three (3) years from the date of the certification eligibility notification letter.

100.13.2 Renewal of Certificates

- (a) Operators must submit a written application for renewal to the Board or its designee prior to the expiration date of the certificate.
- (b) Renewed certificates shall be valid for three (3) years from the date of expiration of the prior certificate, not from the issue date of the renewed certificate.
- (c) Renewal applications must demonstrate that the operator satisfies the requirements of this regulation including meeting the renewal training unit requirements stated in section 100.14.
- (d) The Board or its designee shall provide all application forms for renewal of certificates.

100.13.3 Expired Certificates

- (a) A certificate becomes invalid on its expiration date.
- (b) Following expiration of a certificate, the operator shall not represent that he or she holds a certificate in the class for which the certificate expired.
- (c) No operator of a water or wastewater facility shall operate a facility in reliance on an expired certificate.
- (d) An operator may apply for renewal for two years following expiration of the certificate. The Board or its designee will renew the certificate if the operator pays the renewal and applicable late fees, as listed in section 100.19.2(d), and satisfies all applicable renewal requirements.
- (e) Certificates which are renewed after their expiration date shall be valid for three years from the date of expiration of the prior certificate, not from the issue date of renewed certificate.

100.13.4 Revocation of Non-Renewed Certificates

- (a) Any certificate not renewed by the operator within two years of its expiration is automatically revoked.
- (b) Any operator whose certificate is revoked shall be treated as a new applicant for purposes of this regulation and must meet all the initial certification requirements, including passing the appropriate certification examination.

100.13.5 Certificates by Reciprocity

- (a) Certificates may be issued by the Board or its designee, without examination, on a case-by-case basis, to persons in a comparable classification who have met the following requirements:

- (i) Passed an adequate, validated examination and who hold a valid certificate from another state, territory or possession of the United States, or other country provided the requirements for certification of operators under which the person's certificate was issued do not conflict with the provisions of Article 9 of Title 25, C.R.S., and are of a standard not lower than that specified by these regulations.
- (ii) Obtained qualifying experience in the state, territory or possession of the United States, or other country in which they hold a valid certificate.
- (b) Upon written notification of approval by the Board for certification in Colorado, applicants shall pay the administration and applicable late fees as listed in section 100.19.2.
- (c) Certificates by reciprocity shall be considered "new" certificates subject to all requirements of sections 100.13.1 and 100.19.

100.14 PROFESSIONAL DEVELOPMENT - TRAINING UNIT REQUIREMENTS FOR RENEWAL OF CERTIFICATION

100.14.1 In addition to the other requirements of this regulation, all certified operators must earn the appropriate number of training units, as specified in this section, before the operator's certificate will be renewed.

- (a) At least fifty percent (50%) of the training units for certification renewal must be for courses approved for credit in the specific field of the certificate being renewed.
- (b) Up to fifty percent (50%) of the training units for certification renewal may come from courses approved for credit in a field other than that of the certification being renewed, including supplemental training courses.
- (c) The maximum number of training units from a specific course that may be credited toward the renewal of a single certification is the training unit equivalent of the actual number of approved hours in the course.
- (d) If applicable, the training units from one course may be applied toward the renewal of more than one certification.

100.14.2 Table – Training Unit Requirements for Operator Certification Renewal

Operator Class	Training Unit Requirement
Class T	1.2 Training Units
Class D or Class 1	1.2 Training Units
Class S	1.8 Training Units
Class C or Class 2	1.8 Training Units
Class B or	2.4 Training Units

Class 3	
Class A or Class 4	3.0 Training Units

100.14.3 Ten contact hours shall be required to equal one training unit. A “contact hour” means a classroom or supervised hour of attendance or hour of participation recognized by the Board as a training unit in accordance with section 100.12.2.

100.14.4 All subject matter for which training units will be granted must be determined by the Board or its designee to be relevant and necessary to the successful operation of a water or wastewater facility.

- (a) The Board or its designee shall approve as “core training” courses with topics that are directly applicable to aspects of water and wastewater facility operations that may affect public health or the environment, or the need to maintain compliance with established requirements. Training units from such courses may be used to satisfy the training units requirements for the renewal of an operator’s certification in accordance with section 100.14.1.
- (b) Eligible “core training” topics may include the following subjects:
 - (i) operation and maintenance of facility mechanical systems, electrical equipment or hydraulics;
 - (ii) physical treatment, chemical treatment, biological treatment;
 - (iii) physical testing, chemical testing, biological testing, or disinfection;
 - (iv) regulatory compliance; or
 - (v) other relevant topics approved by the Board.
- (c) The Board or its designee may approve as “supplemental training” any courses that are found to provide useful operator knowledge but are not directly related to water or wastewater facility operations. Training units from courses approved as “supplemental training” may be used to satisfy the training unit requirements for renewal of an operator’s certification in accordance with section 100.14.1.

100.14.5 Training units shall be awarded to certified operators for teaching a classroom course that has been approved by the Board or its designee. The training units awarded shall be double the training units approved for the course.

100.14.6 Institutions, seminar presenters, and others may seek approval of their training or educational courses or programs by application to the Board or its designee. Such an application must demonstrate that their proposed material, curricula, contact hour equivalency, and facilities meet the criteria established in section 100.12.2.

100.15 CERTIFIED OPERATOR DUTIES

100.15.1 In the performance of their duties, certified operators shall exercise a level of reasonable care and judgment consistent with the experience and training appropriate to their level of certification as defined in these regulations.

100.15.2 Process control and/or system integrity decisions with respect to drinking water quality or quantity that may affect the public health or the environment are reserved to certified operators.

100.15.3 Process control and/or facility integrity decisions with respect to effluent quality or quantity that may affect the public health or the environment are reserved to certified operators.

100.15.4 Certified operators shall protect the public health and the environment by properly performing and/or supervising the activities pertinent to controlling the operation of a water or wastewater facility, including but not limited to the following:

- (a) controlling the selection of or flow from a source to a water or wastewater facility and controlling the selection of or flow from a water or wastewater facility to a receiving body or system;
- (b) controlling the processing of raw and/or treated and/or finished water/wastewater;
- (c) preparing and/or controlling chemical addition for water or wastewater treatment;
- (d) observing and taking necessary actions in response to variations in operating conditions;
- (e) interpreting meter and/or gauge readings and adjusting facility processes based on such interpretations;
- (f) operating valves and/or gates either manually or by remote control;
- (g) starting and/or stopping pumps;
- (h) maintaining logs and/or records;
- (i) collecting and/or analyzing process control samples;
- (j) ensuring proper inspection and testing of new, modified, or repaired facilities prior to placing or returning such facilities into service;
- (k) developing and implementing preventative maintenance programs and performing routine maintenance functions for facilities; or
- (l) overseeing compliance with laws and regulations and reporting as appropriate to facility owners and the Department.

100.15.6 Each certified operator shall provide to the Board or its designee his or her current mailing address, telephone number, and email address (if available) and shall update this information within 30 days of a change.

100.16 OPERATOR IN RESPONSIBLE CHARGE DUTIES

100.16.1 The operator in responsible charge is designated by the owner of the water or wastewater facility and has supervisory responsibility for the operation of the facility and for the operational activities and functions of other facility operators.

100.16.2 The operator in responsible charge of a water or wastewater facility must hold a valid certificate equal to or greater than the classification of the water or wastewater facility he or she operates.

100.16.3 The operator in responsible charge shall protect the public health and the environment in the conduct of his or her duties. These duties shall include the following:

- (a) the management or administration of the operation of the water or wastewater facility;
- (b) the accountability for the proper operation and maintenance of the water or wastewater facility for compliance with applicable regulations and/or permit requirements, including monitoring and reporting requirements;
- (c) the control of, supervision over, or active participation in the daily planning, operation or maintenance of a water or wastewater facility;
- (d) authority to make day-to-day process control and system integrity decisions on the operation and maintenance of the water or wastewater facility;
- (e) the availability to make decisions and initiate actions regarding the operation of the water or wastewater facility in a timely manner;
- (f) the performance of other functions of direct responsibility, such as those enumerated in section 100.15.

100.17 AUTHORIZATION FOR CONTINUED OPERATION OF WATER DISTRIBUTION AND WASTEWATER COLLECTION SYSTEMS

100.17.1 Operators of water distribution and/or wastewater collection systems certified prior to January 30, 2001, under the voluntary program administered by the Colorado Water and Wastewater Collection Systems Certification Council, Inc., shall be considered compliant with the certification requirements of this provision. Upon expiration of current certificates issued under this voluntary program, all new and renewed certificates shall be valid for a period of three years. Such certification shall be renewable upon payment of appropriate fees and obtaining the required training units.

100.17.2 Existing operators of water distribution or wastewater collection systems as of January 30, 2001, whose responsibility includes making process control and/or system integrity decisions about water quality or quantity that may affect the public health or environment, may continue to operate the specific system in which they are currently employed for a period of two years from the issuance of an authorization for continued operation without meeting the certification requirements of this regulation, provided that they have the requisite minimum experience levels provided in section 100.9 and so long as the following requirements are satisfied:

- (a) The owner of the existing water distribution or wastewater collection system applies to the Board or its designee for issuance of an authorization for such operator to continue operation without compliance with the otherwise applicable

certification requirements of this regulation. The owner must submit such application to the Board or its designee within one year of January 30, 2001.

- (b) Such an operator shall not operate any other system until he or she meets the initial certification requirements for that system and obtains a certificate appropriate for that system.
- (c) Authorization for continued system operation under this provision is non-transferable, applies only to the specific system and operator and does not authorize operation of the system by any other operator.
- (d) Within two (2) years from the issuance of an authorization for continued operation under this provision, an operator must obtain a certificate, restricted to the operation of the specific system, by meeting all requirements for obtaining certificate renewal including payment of fees, acquiring the minimum training units, and demonstrating to the Board or its designee all requisite skills, knowledge, ability and judgment for the type of system.
- (e) If the classification of a facility or system changes to a higher level, the authorization to continue operation under this provision expires, and is no longer valid unless the classification change occurs without any significant physical change in the system as determined by the Board or its designee.
- (f) Any operator authorized to continue operation under this provision who chooses to work for a different facility or system must meet all the initial certification requirements for that facility or system, including obtaining a certificate appropriate to that facility or system, passage of a validated written examination, and satisfaction of the minimum experience requirements of this regulation.

100.18 RESPONSIBILITIES OF WATER AND WASTEWATER FACILITY OWNERS

100.18.1 Supervision by a Certified Operator in Responsible Charge

- (a) No owner of a water or wastewater facility shall allow the facility to be operated without the direct supervision of an operator in responsible charge certified in a classification equivalent to or higher than the classification of the facility as specified in sections 100.4 through 100.8.
- (b) For purposes of this regulation, "direct supervision" means that the operator in responsible charge has supervisory responsibility and authority with respect to the operation of the water or wastewater facility and for the activities and functions of other facility operators.
- (c) Owners shall ensure that their agreement with the operator in responsible charge is sufficiently detailed and formal to reflect all the duties as outlined in section 100.16.
- (d) Contracts for limited services do not fulfill the owner's obligation, under section 100.18.1(a), to place the facility under the supervision of an appropriately certified operator in responsible charge. Contracts for limited services, such as compliance sampling, do not rise to the level of a contract for an operator in responsible charge.

100.18.2 Decisions Reserved to Operator in Responsible Charge

Each owner of a water or wastewater facility shall ensure that all process control and/or facility integrity decisions about water quality or quantity or wastewater effluent quality or quantity that may affect public health or the environment are made by either an operator in responsible charge or by another certified operator.

100.18.3 Certified Operator Availability

- (a) Each owner of a water or wastewater facility shall ensure that a designated certified operator, certified at or above the classification of the facility, is available whenever the facility is in operation.
- (b) For purposes of this regulation, “available” means that the designated certified operator must either be on-site or must be able to be contacted as needed to make decisions and to initiate appropriate actions in a timely manner.

100.18.4 Reporting Requirement

- (a) Each owner of a water or wastewater facility shall submit in writing to the Division, no later than thirty (30) days following the date the facility is initially placed on-line and thereafter, no later than thirty (30) days after changes to any of the following information:
 - (a) name, mailing address, phone number, and email address (if available) of the facility representative providing the information;
 - (b) name, mailing address, phone number, email address (if available) and the classification and expiration of certification of all operator(s) in responsible charge employed by the owner;
 - (c) identification of the facility or facilities for which each operator in responsible charge employed or contracted by the owner has responsibility;
 - (d) the Public Water System Identification (PWSID) number and the Colorado Discharge Permit system (CDPS) permit or certification number for all facilities listed.

100.18.5 Operator in Responsible Charge Certification Requirements

- (a) Each water and wastewater facility shall have an operator in responsible charge certified as shown in the following table:

(b) Table – Criteria for Operator in Responsible Charge

<u>Facility or System Classification</u>	<u>Certification of Operator(s) in Responsible Charge</u>
<u>Water Systems</u>	
Water Treatment	
A	A
B	A or B

C	A, B, or C
D	A, B, C, D, S ¹ or T ²
Water Distribution	
4	4
3	4 or 3
2	4, 3 or 2
1	4, 3, 2, 1, or S ¹
<u>Domestic Wastewater Systems</u>	
Wastewater Treatment	
A	A
B	A or B
C	A, B, or C
D	A, B, C, D, or S ³
Wastewater Collection	
4	4
3	4 or 3
2	4, 3 or 2
1	4, 3, 2, 1, or S ³
<u>Industrial Wastewater Systems</u>	
A	A
B	A or B
C	A, B, or C
D	A, B, C, or D, or S ³

¹ Applicable only in accordance with section 100.9.2(e)

² Applicable only in accordance with section 100.9.2(d)

³ Applicable only in accordance with section 100.9.2(f)

100.18.6 The Division shall investigate any instances of possible violations of the requirements of section 100.18 of this regulation by any owner of a water or wastewater facility. The

Division shall enforce compliance with these requirements in accordance with the procedures in sections 25-9-110(3), (4), and (6), C.R.S.

100.19 FEES

100.19.1 Application fees for certification, renewal of certification, and issuance of a certificate upon a Board finding of reciprocity shall be \$15, and shall be nonrefundable.

100.19.2 Program fees shall consist of the following.

- (a) Examination fees in the amount of \$45.00 will be charged for each examination the applicant signs up to take. Examination fees are based on the cost of preparing, administering, and scoring the certification examination.
- (b) An additional fee of \$35.00 per examination will be charged applicants who choose to take certification examinations electronically. This fee is based upon the added cost to the program of making electronic testing available.
- (c) Administration fees will be charged upon issuance of all new and renewal certifications and will be based on the cost of administering the operator certification program. Administration fees shall be:
 - (i) \$55.00 for each new certification by examination; and
 - (ii) \$70.00 for each renewal certification and each new certification by reciprocity.
 - (iii) For all new and renewed certifications, a standard 6 x 9 inch certificate is available at no additional cost. A 9 x 11 inch certificate may be requested by the operator for a \$5.00 fee.
- (d) There shall be a \$20.00 fee to cover the cost of replacing certification documentation.
- (e) There shall be a \$50.00 late fee, in addition to the regular administration fee, for issuance of certificates for new certification or certification by reciprocity requested sixty-one (61) days or more after the date of the letter notifying the applicant of eligibility to receive certification.
- (f) There shall be a \$50.00 late fee, in addition to the regular administration fee, for the renewal of any certification for which the renewal application is submitted after the expiration date of the certificate being renewed.
- (g) Training unit approval fees shall be \$50.00 for each course submitted for review, except that:
 - (i) Accredited or equivalent educational institutions as referenced in subsection 100.12 shall not be required to submit courses for review in order for such courses to be used to satisfy training unit requirements; if such institutions choose to submit courses for review, the \$50.00 fee will apply and the applicable courses will be posted along with other approved courses;

- (ii) An individual attending a course that has not been approved for training units may apply for training unit credit for that course for a fee of \$25.00, provided that the course will then be approved only for the individual operator requesting approval; and
- (iii) The \$50.00 fee may be waived by the Board or its designee on a case-by-case basis upon a determination that:
 - (A) The course is offered for open enrollment at no cost to those taking the course and with no compensation to the course sponsor;
 - (B) Payment of the fee would constitute a financial hardship for the course sponsor; and
 - (C) In the absence of the fee waiver, it is unlikely that this training opportunity would be available to operators.

100.20 DISCIPLINARY PROCEEDINGS

100.20.1 The Board may reprimand a certified operator, and/or suspend or revoke the certificate of any certified operator who violates the requirements of this regulation, including, but not limited to the following:

- (a) failing to exercise reasonable care and judgment consistent with the operator's level of certification and degree of responsibility for the operation of a water or wastewater facility;
- (b) failing to properly perform and/or supervise activities pertinent to controlling the operation of a water or wastewater facility, including, but not limited to the tasks described in section 100.15 of this regulation;
- (c) willfully or negligently violating, causing, or allowing the violation of this regulation, 5 CCR 1003-2; the Colorado Primary Drinking Water Regulations, 5 CCR 1003-1; the Colorado Discharge Permit System Regulation, 5 CCR 1002-61, or the discharge permits issued pursuant to 5 CCR 1003-61;
- (d) submitting false or misleading information on any document provided to the Department, Division, Board, or designee of the Board;
- (e) using fraud or deception in the course of employment as an operator;
- (f) failing to conform with minimum standards of performance of an operator's duty;
- (g) engaging in dishonest conduct during an examination;
- (h) obtaining a certificate through fraud, deceit, or the submission of materially inaccurate application information; or
- (i) representing oneself as holding a valid operator's certificate after the expiration, suspension, or revocation of the certificate.

100.20.2 The Board may reprimand an operator in responsible charge, and/or suspend or revoke the certificate of any operator in responsible charge, who:

- (a) fails to meet the requirements of an operator in responsible charge as defined in section 100.17 of this regulation; and/or
- (b) willfully or negligently causes, instructs, or allows any other person or operator under his or her charge, direction, or supervision to act in a manner inconsistent with an operator's duties and obligations as described in section 100.16 or other relevant parts of this regulation, or to act in a manner inconsistent with the Colorado Primary Drinking Water Regulations, the Colorado Discharge Permit System Regulations or a discharge permit issued thereunder, or any other relevant regulations.

100.20.3 The Division shall investigate any instances of possible misconduct by certified operators or operators in responsible charge of water or wastewater facilities. The Division shall present the results of the investigation and its recommendations for any disciplinary action, including reprimand or suspension or revocation of a certificate, to the Board in accordance with section 24-4-105, C.R.S.

100.20.4 Reprimand

A reprimand is an official admonition for wrongdoing issued to an operator by the Board in the form of a letter, which includes the facts and circumstances leading to the reprimand, the statutory and regulatory provisions at-issue, and a warning of more serious consequences for future wrongdoings.

100.20.5 Suspension

- (a) The Board may suspend a certificate for a period not to exceed three (3) years.
- (b) At the end of the suspension period, an operator may resume the duties of a certified operator without being required to submit a new application for certification.
- (c) If an operator's certification is due for renewal during the period of suspension, the operator shall remain subject to the renewal deadline and shall renew the certification in a timely manner.
- (d) Certifications renewed during a suspension period shall be come valid for a period of three (3) years, effective on the ending date of the suspension period.

100.20.6 Revocation

- (a) Following the revocation of a certificate, an operator may not apply for another certification in the same classification category as that of the revoked certificate for a period of three (3) years.
- (b) any operator whose certificate is revoked shall be treated as a new applicant for purposes of this regulation and must meet all the initial certification requirements, including passing the appropriate certification examination.

100.20.7 Emergency Suspension or Revocation

The Division may immediately suspend or revoke certifications where such immediate action is necessary to protect the public health or the environment.

100.20.8 Following the suspension or revocation of his or her certificate, an operator shall not represent that he or she holds a certificate in the classification category for which the certificate was suspended or revoked. No person shall operate a water or wastewater facility in reliance on a suspended or revoked certificate.

100.21 HEARINGS AND APPEALS

100.21.1 Any water or wastewater facility owner who seeks a hearing in response to a Division finding of a violation under section 100.18.1 or a Department assessment of a civil penalty for such violation may request a hearing before the Board by submitting to the Division, within thirty (30) days of notice of such finding or assessment a request containing the following:

- (a) identification of the person(s) requesting the hearing and the subject matter of the request;
- (b) the statutory and/or regulatory authority and factual basis for the request; and
- (c) the relief requested.

100.21.2 Any certified operator, operator in responsible charge, or other person affected or aggrieved by a decision of the Board's designee or the Division may request a hearing before the Board by submitting a request within thirty (30) days of notice of such decision containing the following information:

- (a) identification of the person(s) requesting the hearing and the subject matter of the request;
- (b) the statutory and/or regulatory authority and factual basis for the request; and
- (c) the relief requested.

100.21.3 The Board shall grant any hearing request made pursuant to section 100.20.1 or 100.20.2 of this regulation and shall schedule and conduct an adjudicatory hearing in accordance with section 24-4-105, C.R.S.

100.22 - 29 RESERVED

100.30 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; NOVEMBER, 2000 RULEMAKING

The provisions of sections 25-9-104(1)(a), (3), (4), (5) and (6), C.R.S.; 25-9-106; 25-9-106.2; 25-9-106.3; 25-9-107; 25-9-108, C.R.S., provide the specific statutory authority for the adoption of these regulatory provisions. The Board also adopted, in compliance with section 24-4-103(4), C.R.S., the following statement of basis and purpose.

BASIS AND PURPOSE

Background and Overview

The 2000 Colorado General Assembly adopted HB 00-1431, revising the certification procedures and requirements for operators of water and wastewater facilities, which include water treatment facilities, domestic and industrial wastewater treatment facilities, water distribution systems and wastewater

collection systems. The bill established the composition, duties and rulemaking authority of the Water and Wastewater Facility Operators Certification Board (formerly the Plant Operators Certification Board).

The Board intends that the rules adopted pursuant to HB 00-1431 will comply with guidelines established by the United States Environmental Protection Agency (EPA) under section 1419(a) of the federal Safe Drinking Water Act, which specifies minimum standards for certification and recertification of operators of community and nontransient noncommunity public water systems. In particular, the Board anticipates that this regulation will satisfy EPA requirements and allow that agency to release to the state federal funding that is contingent on adoption of appropriate certification requirements.

Operator Classification and Qualification Issues

In this rulemaking, the Board established various classes of operators for water treatment facilities, domestic and industrial wastewater treatment facilities, water distribution systems and wastewater collection systems. Pursuant to HB 00-1431, the classes of operators established by the Board reflect the differing levels of complexity encountered in operating the various types of facilities and systems. This legislation also authorized the Board to establish separate certification classifications for operators of multiple facilities and for operators of certain small systems. Because of time constraints imposed by EPA deadlines, the Board has chosen to address the issue of operators of multiple facilities in a later rulemaking and has simply “reserved” this section at this time. The Board has made specific provisions for the certification of operators of Small Water and Wastewater Systems and for Transient Non-community Water Systems, as discussed below.

The Board also defined a process for determining the qualifications for certifying and renewing the certification of operators in each of the various classes. In accordance with HB 00-1431 and EPA guidelines, the Board adopted minimum education and experience requirements for operators, a requirement that examinations be validated, and a requirement that operators meet ongoing training requirements in order to renew their certification. The Board intends that if an

operator wishes to renew multiple certifications, the same training units may be applied to meet the requirements of more than one certification renewal if the courses in question have been accredited for each of the certifications in question. Operators with multiple certifications are encouraged to take training courses specific to each of their certifications.

The Board also chose appropriate levels at which an applicant may substitute experience for education, or education for experience, in order to allow operator certification where a combination of these components demonstrates that the operator is competent to operate a particular class of facility. Although either education or cross-experience may be substituted for a portion of the experience requirement for any classification, the Board intends that no less than 50 percent of any experience requirement must be met by actual on-site operating experience in the classification applied for. A provision providing for transitional renewal training requirements for operators whose certificates expire prior to January 30, 2004 is also included.

Minimum Experience for Entry Level Operators

According to EPA regulations, operators seeking to be certified must have a specified amount of minimum experience. Several stakeholders expressed concern that requiring a minimum amount of experience for all operators placed an undue burden on entry-level operators in rural areas of Colorado because they would not have the time or financial capability to meet such a certification requirement. In response to these concerns, the Board created a new level of certification for operators of water treatment facilities and water distribution systems serving Transient Non-community Water Systems that draw water from ground water sources not under the influence of surface water, serve less than 100 persons per day, and utilize only non-gaseous chlorine disinfection. Recognizing that such transient non-community systems are outside the scope of EPA guidelines, the Board chose not to impose a minimum experience requirement on such operators and allowed them to gain certification based solely on the

passage of a written examination that focuses on subjects particularly relevant to operating this category of transient non-community water treatment facilities and transient non-community water distribution systems. For other entry level water and wastewater facility operators (Class D and Class 1), the Board has established a one-month minimum experience requirement. In order to provide flexibility to entry-level operators, the Board has established a number of options for meeting this experience requirement, including on-the-job training, apprenticeship, and on-site or correspondence training courses.

The Board also created a Small System classification for both water and wastewater facilities. These classifications apply to facilities that serve under 3300 persons and that otherwise fall into the Class D treatment and Class 1 distribution or collection classifications. Small water system operators shall be certified by taking a single examination in water treatment and distribution. Small wastewater system operators shall be certified by taking a single examination in wastewater collection and treatment. Renewal training requirements for these certificates have been set at 1.8 training units. During the transition period prior to the construction and validation of these examinations, applicants for these certifications will take both the Class D and Class 1 examinations in the appropriate category. The application and fee structures have been adjusted to reflect the degree of overlap among these requirements.

Classification of Water and Wastewater Treatment Facilities

Generally, the Board, chose to establish a system for classification of the State's water and wastewater treatment facilities according to their prior system of classification. Accordingly, the Board adopted a classification scheme which takes into consideration factors such as the size, complexity, and amount of water processed through the facility. The Board determined that it would be most efficient for the Division to retain the authority to classify facilities and modify the classification of any facility. Classification decisions by the Division can be appealed to the Board.

The Board recognizes that water treatment processes that do not utilize chemicals are more problematic and impose a greater risk on public health. Therefore, the Board requires that a higher class of distribution system be used in combination with treatment facilities that utilize ground water with a waiver of disinfection, including ultraviolet and ozone disinfection. This is due to the fact that there is no residual disinfectant in the distribution system.

Classification of Water Distribution and Wastewater Collection Systems

In classifying water distribution systems and wastewater collection systems the Board chose to initially classify the systems based on population, which the Board believes serves as an adequate surrogate for complexity. Additionally, the Board provided that the Division can change the classification of any particular facility based on complexity factors. The Board intends to revisit their initial classification scheme for water distribution and wastewater collection systems in a future rulemaking to consider adoption of a classification system that will more accurately reflect the complexities and differences between the various types of distribution and collection systems.

Fees

The new state legislation authorized the Board to adopt application and program fees which reflect the actual costs of administering the operator certification program. The Board has established a certification application fee of \$15, as specified in the statute. It also established two types of program fees: (1) an examination fee of \$25 to cover the cost of administering each examination, and (2) an administration fee that will be charged upon issuance of a certificate and upon renewal of a certificate. The administration fee will cover ongoing costs of program administration by a third party contractor. The Board did not adopt specific fee amounts in this rulemaking because the arrangements with a third party contractor, which will determine the necessary amount of the fees, have not yet been finalized. The Board therefore is reserving the adoption of specific administration fees for a later rulemaking. The Board also anticipates

that the fees established in this rulemaking may need to be revised as the transition to this new mode of implementing the operator certification program is completed.

Status of Existing Operators

The Board chose to certify under these regulations those operators of water and wastewater treatment facilities who had been previously certified under the prior certification system. The Board also chose to certify under these regulations those operators of water distribution systems

and wastewater collection systems who had been previously certified under the voluntary program administered by the Colorado Water and Wastewater Collection Systems Certification Council, based on the understanding that the voluntary certification program, and in particular the exam administered under the voluntary program, was adequate to ensure the protection of public health and the environment, and the safe operation of water distribution and wastewater collection systems.

In addition, the new regulation provides a procedure to authorize certain existing operators of existing water distribution and wastewater collection systems who have not obtained voluntary certification to continue operation of the specific systems where such operators are currently employed for a period of time without receiving a certificate. Pursuant to EPA guidelines the Board chose to allow operators of existing systems, who were authorized to make process control and/or system integrity decisions about water quality or quantity that may affect the public health or environment, to continue operation of their systems so long as certain requirements are met and a certain procedure is followed. This procedure allows owners of such systems to apply to the Board for an "Authorization for Continued Operation" for the existing operators of their system. Pursuant to EPA guidelines, the Board chose to make the "Authorization for Continued Operation" site-specific and non-transferable. To maintain this authorization, operators will need to meet the same on-going training requirements as certified operators. To move to another facility, operators would need to meet all initial certification requirements, including passing the appropriate exam. These same procedures apply to operators who hold existing restricted certificate issued under authority of the regulations being repealed in this rulemaking.

Operator Responsibilities

One section of the regulation adopted by the Board specifies the duties of certified operators and defines certain standards of performance for certified operators of affected facilities. The regulation requires certified operators to exercise reasonable care and judgment while performing their duties and in supervising facility operations. The regulation also requires operators to keep current with the Board information on where the operator(s) can be contacted so that the Board can notify the operator(s) of certification expiration, renewal requirements, and testing information.

Owner Responsibilities

Another section of the regulation adopted by the Board specifies the duties of owners of water and wastewater facilities. Pursuant to the legislation and EPA guidelines, the Board chose to require owners to place the direct supervision of their facilities under the control of an "operator in responsible charge" holding a valid certification equal to or greater than the classification of the facility. The Board clarified that a direct supervisor relationship exists if the operator in responsible charge has supervisory responsibility and authority with respect to other operators. The Board does not intend for direct supervision to mean that the operator in responsible charge must be on-site at all times.

In order to meet EPA guidelines, the Board required that all process control and/or system integrity decisions about water quality or quantity that may affect the public health or the

environment be made by either an operator in responsible charge or another certified operator. This operator must be certified at a level equal to or higher than that of the facility. The Board also required

owners to designate a certified operator who would be available for each operating shift. The Board clarified that in order for an operator to be “available,” he or she must be on-site or able to be contacted as needed to initiate appropriate actions in a timely manner.

Finally, the regulation requires owners to submit to the Board information on the operator(s) in responsible charge of their facility so that the Board and Division can more efficiently enforce the provisions of this regulation and better protect the public health.

Division Enforcement Procedures

HB 00-1431 also set out the roles of the Water Quality Control Division and the Board in enforcing the new operator certification program. The Board recognized the role of the Division as the agency primarily responsible for investigating and reporting to the Board any misconduct by water and wastewater facility operators. Any disciplinary action regarding operators would be taken by the Board, after an opportunity for a hearing. Pursuant to the legislation, the Board also chose to allow owners of water and wastewater facilities to seek a hearing before the Board in response to a Division finding of a violation of the regulations or in response to a Department assessment of a civil penalty. The rule also establishes a process by which any person, affected or aggrieved by a decision of Division or a third party contractor implementing certain aspect of the program may seek relief through an appeal or hearing before the Board.

Nonprofit Contractors Issues

HB 00-1431 authorized the Board to appoint one or more independent nonprofit corporations to administer the operator certification program, including providing examinations, issuing certification documents, evaluating continuing training requirements for renewal of certification, and evaluating requests for reciprocity. The Board specified in the new regulation the program administration duties that it may choose to delegate to a nonprofit corporation.

100.31 FINDINGS IN SUPPORT OF EMERGENCY ADOPTION OF REGULATION NO. 100; DECEMBER 5, 2000

In addition to its adoption of Regulation No. 100 in accordance with the standard procedures specified in section 24-4-103, C.R.S., which result in an effective date for this regulation on a permanent basis of January 30, 2001, the Board also is adopting the rule on an emergency basis with an effective date of December 5, 2000.

In order to satisfy the new federal requirements noted in section 100.30 above, the modified operators certification program established by these regulations must be in effect by February, 2001. In addition, the new state legislation noted above, which became effective in May, 2000, mandates that the state’s operators certification program be implemented in accordance with its provisions. This new regulation needs to be in effect to assure that program implementation is consistent with the new statutory provisions. Because the already-established 2001 certification examination cycle begins in January, 2001, with an application deadline of December 15, 2000, there would be substantial disruption to the certification program, with serious financial implications for operators whose employment depends upon obtaining certification, if this new regulation did not become effective immediately.

Therefore, the Board finds that the immediate adoption of Regulation No. 100 with an effective date of December 5, 2000 is imperatively necessary to comply with state law and for the preservation of public health, safety and welfare, and that compliance with the requirements of section 24-4-103, C.R.S. as to the normal effective date for new regulations would be contrary to the public interest.

100.32 FINDINGS IN SUPPORT OF EMERGENCY ADOPTION OF REVISIONS TO REGULATION NO. 100.22.2(b); JANUARY 30, 2001

In order to satisfy the new federal requirements noted in section 100.30 above, the modified operators certification program established by the Board's regulations must be in effect by February 5, 2001. In its December 5, 2000 rulemaking, the Board reserved a provision in section 100.22.2(b) for an administration fee. This rule revision establishes the amount of the fee.

The Board has determined that collection of a fee to help cover the costs of administration of the Operators Certification Program by nonprofit, third party contractors is necessary to effectively carry out the program. The Board also concludes that immediate imposition of the fee is necessary in order to assure that the program is fully implemented by the federal deadline. Therefore, the Board finds that the immediate adoption of the administration fee in section 100.22.2(b) with an effective date of January 30, 2001 is imperatively necessary to comply with state law and for preservation of public health, safety and welfare, and that compliance with the requirements of section 24-4-103, C.R.S. as to the normal effective date for new regulations would be contrary to the public interest.

100.33 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; ARCH, 2001 RULEMAKING

The provisions of sections 25-9-104(1)(a), (3), (4), (5) and (6); 25-9-105; 25-9-106.3; 25-9-107; 25-9-108, C.R.S., provide the specific statutory authority for the adoption of these regulatory provisions. The Board also adopted, in compliance with section 24-4-103(4), C.R.S., the following statement of basis and purpose.

BASIS AND PURPOSE

The 2000 Colorado General Assembly adopted HB 00-1431, revising the certification procedures and requirements for operators of water and wastewater facilities, which include water treatment facilities, domestic and industrial wastewater treatment facilities, water distribution systems and wastewater collection systems. The bill established the composition, duties and rulemaking authority of the Water and Wastewater Facility Operators Certification Board (formerly the Plant Operators Certification Board).

The new state legislation authorized the Board to adopt application and program fees that reflect the actual costs of administering the operator certification program. The Board has previously established a certification application fee of \$15, as specified in the statute. Regulation No. 100 also provides for two types of program fees: (1) an examination fee to cover the cost of administering each examination, and (2) an administration fee that will be charged upon issuance of a certificate and upon renewal of a certificate. The Board has previously established an examination fee of \$25.

On January 30, 2001, the Board adopted on an emergency basis an administration fee of \$60.00 for each new and renewal certification. This administration fee will cover ongoing costs of program administration by one or more third party contractors. The amount of this fee is based upon evidence presented in the emergency rulemaking hearing regarding the actual costs of program administration, taking into account a level of uncertainty associated with this new third party role. In this rulemaking, based on the evidence presented the Board has readopted this same administration fee. The Board intends that the amount of this fee will be revisited from time to time in the future as more experience with implementation of the Operators Certification Program by the third party contractors is gained.

Section 25-9-104 (1)(a) C.R.S. requires a failed examination review without specifying any specific format or requirements for this review. The current regulation (section 100.11.5, 5 C.C.R. 1003-2) contains a similar requirement. It is possible, however, to interpret the regulation as requiring that failed examinees be permitted to review actual copies of the examination. The Board recognizes that providers of standardized examinations are reluctant to permit, and often refuse to permit, copies of their examinations to be available for individual review. These providers generally produce detailed, individualized statistical analyses of examination results. Such analyses can form the basis for a meaningful review of individual's performance on examinations.

The Board, therefore, has decided to amend the regulatory language to more clearly reflect the statutorily permitted flexibility regarding failed examination reviews. The specific format of failed examination review sessions may be determined by the Board or its designee, consistent with the restrictions imposed by the provider(s) of the standardized examinations used in certification testing.

100.34 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; AUGUST, 2001 RULEMAKING

The provisions of sections 25-9-104(1)(a), (3), (4), (5), (6) and (6.5); 25-9-105; 25-9-106.3; 25-9-107; 25-9-108; and 25-9-110, C.R.S., provide the specific statutory authority for the adoption of these regulatory provisions. The Board also adopted, in compliance with section 24-4-103(4), C.R.S., the following statement of basis and purpose.

BASIS AND PURPOSE

1. Subsections 100.18.2 and 100.18.3:

The previous version of section 18, 5 C.C.R. 1003-2, made provision for the continuance of the certifications of water distribution and wastewater collection operators who are (as of January 30, 2001) currently certified under the voluntary certification program administered by the Colorado Water Distribution and Wastewater Collection Systems Certification Council by declaring, in section 100.18.1, that such certifications will be considered valid. Operators who have not been certified under the voluntary program have an opportunity to obtain either a full or a restricted certification under the provisions of section 100.18.2. No provision was made to address those operators who hold either expired voluntary certifications or who are under-certified for the level of their job responsibility. This amendment broadens the scope of section 100.18.2 to include such operators.

The original structure of the first paragraph of section 100.18.2 mixed provisions applicable to two distinct groups of operators: those currently operating water distribution and wastewater collection systems and those holding restricted water or wastewater treatment certifications valid under the previous version of these regulations. This admixture of subjects makes the language and interpretation of the existing regulation awkward. Therefore, a new section, 100.18.3, is appropriate. This section applies specifically to operators who hold currently valid restricted water and wastewater treatment certificates.

2. Subsections 100.23.3 and 100.23.4:

Section 25-9-104(6.5), C.R.S., vests the responsibility to investigate instances of possible operator misconduct with the Water Quality Control Division, not with an "other Board designee". Similarly, sections 25-9-110(3) through 25-9-110(6), C.R.S., vest enforcement authority for violations of section 25-9-110(2), C.R.S., with the Division. The enforcement of section 100.21, 5 C.C.R. 1003-2, is also vested in the Division. The original language of sections 100.23.3 and 100.23.4 of the regulation did not accurately reflect this placement of responsibility. The language adopted by the Board eliminates reference to designees of the Board as investigative agents.

3. Subsection 100.11.8:

Similar to subsections 100.23.3 and 100.23.4, this section was revised to eliminate the reference to designees of the Board, since the hearing in question would appropriately be held by the Board.

4. Subsection 100.21.5:

This subsection was revised to clarify that higher levels of water treatment certifications are acceptable for operators in responsible charge of transient non-community water systems. Therefore, for example, an operator with a level "D" water treatment certification may be an operator in responsible charge for a

transient non-community system and need not hold a separate water distribution system certification. On the other hand, that operator must hold a level “1” or higher water distribution certification in addition to the level “D” water treatment certification to be a designated operator in responsible charge of a small water system. The Board intends that small systems may have a single operator with the required certifications, or may have multiple operators who together hold the required certifications.

100.35 FINDINGS AND STATEMENT OF BASIS AND PURPOSE FOR ADOPTION ON AN EMERGENCY BASIS OF REVISIONS TO REGULATION NO. 100 JANUARY, 2002 RULEMAKING

On January 29, 2002 the Board adopted revisions to Regulation No. 100, Water and Wastewater Facility Operator Certification Requirements [5 CCR 1003-2] to establish a new subsection 100.14.6, regarding “supplemental training” both on an emergency basis pursuant to § 24-4-103(6), C.R.S., and as a final rule pursuant to § 24-4-103, C.R.S.

The Board has established a new category for “supplemental training” courses. These courses are those that are found to provide useful operator knowledge but are not directly related to water or wastewater facility operations. Examples of such courses would include courses on topics such as first aid or word processing skills, which provide general knowledge that may be useful to certified operators, but do not contribute directly to an operator’s professional water or wastewater facility expertise and knowledge. Supplemental training courses would be ones that do not fall into the specific categories listed in subsection 100.14.4 (a) through (e).

The Board has determined that it is appropriate to allow training units associated with such supplemental training courses to be used for up to (but not more than) 50% of the training requirements to renew a certificate. This system will allow operators to get credit for obtaining training in useful general subject matter areas, while assuring that at least half of the training units relied on for renewal are related to courses that are directly applicable to water and wastewater facility operational expertise.

The Board’s permanent rule adoption complies with the hearing procedures and notice requirements of § 24-4-103, C.R.S. The Board concludes that adoption of the same requirements on an emergency basis is imperatively necessary to protection of public health and safety and that compliance with the effective date provisions of § 24-4-103, C.R.S., would be contrary to the public interest. The purpose of the emergency adoption is to assure that operators seeking certificate renewal prior to the effective date of the permanent rule obtain training that is directly related to water and wastewater facility operational expertise, thereby advancing the purposes of operator certification -- protection of public health and safety. In addition, emergency adoption will minimize confusion and inequity between the types of approval given to operator training courses in 2002.

100.36 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; JANUARY, 2002 RULEMAKING

The provisions of sections 29-5-104(1)(a), 25-9-104(3), 25-9-104(4) and 25-9-106.2, C.R.S., provide the specific statutory authority for the adoption of these regulatory provisions. The Board also adopted, in compliance with section 24-4-103(4), C.R.S, the following statement of basis and purpose.

BASIS AND PURPOSE

1. Section 100.6:

The Board recognizes that there are a variety of industrial facilities whose wastewater handling involves only physical settling, filtration, or separation processes. These facilities process wastewater without chemical addition and normally require only the monitoring of otherwise passive physical processes. The Board has determined that such facilities represent a lower degree of complexity than is represented by

the “C” level of the existing industrial wastewater facility classifications. The Board also recognizes that the facilities described above do not require the supervision of an industrial wastewater facility operator having the level of expertise required of a “C” level operator. Therefore, the Board has determined that a new industrial wastewater facility classification, the “D” level is appropriate. This classification shall consist of facilities whose wastewater handling is purely physical and is without routine chemical addition or complex mechanical manipulation. Subsection 100.6.2 is amended to establish the “D” level industrial wastewater facility classification.

To provide for the proper supervision of “D” level industrial wastewater facilities, the Board establishes a “D” level industrial wastewater facility operators certification. This certification level shall have the same initial certification and renewal requirements as the “D” level water treatment and domestic wastewater treatment certifications.

To allow a degree of flexibility for facilities that only occasionally use processes classed at a higher level than those regularly employed, the Board has broadened the language of subsection 100.6.4 to allow for the occasional use of such processes without requiring a facility classification upgrade.

2. Subsection 100.9.7(a)(i):

This subsection describes the experience requirement for “D” level operators. The subsection is amended to include “D” level industrial wastewater operators within its existing provisions.

3. Subsection 100.21.5:

This subsection is amended to include “D” level industrial wastewater as a listed facility classification and operator certification level. The final paragraph of subsection 100.21.5 was made obsolete by the rulemaking of August 28, 2001, and is hereby deleted.

**100.37 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; APRIL, 2002
RULEMAKING**

The provisions of sections 25-9-104(1)(a), 25-9-104(3), 25-9-104(4) and 25-9-106.2, C.R.S., provide the specific statutory authority for the adoption of these regulatory provisions. The Board also adopted, in compliance with section 24-4-103(4), C.R.S, the following statement of basis and purpose.

BASIS AND PURPOSE

Section 100.6:

The capitalization of the word “and” in the process descriptions for Class B industrial wastewater treatment facilities is an error. The case of the word “and” is, therefore, changed to lower case.

The Board recognizes that stormwater runoff is not an industrial wastewater. Therefore, the listing of “stormwater runoff control ponds” as an example of a process utilized in a class “D” industrial wastewater facility is an error and is hereby deleted.

**100.38 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE; MAY, 2002
RULEMAKING**

The provisions of sections 29-5-104(1)(a) and 25-9-104(3), C.R.S., provide the specific regulatory authority for the adoption of this regulatory provision. The Board also adopted, in compliance with section 24-4-103(4), C.R.S., the following statement of basis and purpose.

BASIS AND PURPOSE

In order to maintain enforcement primacy under the Safe Drinking Water Act, the State needs to approve parties who are qualified to make and to assure the quality of certain analyses required by the Environmental Protection Agency (EPA). Most of the required analyses are already made by certified operators of water treatment facilities and water distribution systems. Rather than develop a new certification program to approve parties under the EPA rules, the Board has decided to incorporate the EPA requirements into the existing operators certification program.

Beginning with the Fall 2002 examinations, the Board will expand the coverage of the certification examinations to cover the analyses required by EPA. Because the content of certification examinations is reserved by statute and regulation to the Board, the inclusion of the EPA-required analyses in the certification examinations will not require a regulatory change. However, operators who are already certified will need to acquire training in the EPA requirements. To assure that currently certified operators receive training in the EPA analysis and quality assurance requirements, an ongoing training requirement, to be completed within three years of the start of the Fall 2002 examination cycle, is hereby established.

100.39 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: MARCH 2003 RULEMAKING

Provisions of section 25-9-104(1)(a), C.R.S., provide the specific statutory authority for the adoption of these amendments to the established regulatory provisions of Regulation 100 (5 CCR 1003-2). The Board also adopted, in compliance with section 24-4-103(4), C.R.S., the following statement of basis and purpose.

BASIS AND PURPOSE

The Board has determined that the following sections must be amended in order to correct errors and to clarify the intent of the Regulation: sections 100.1.1, 100.2(15), 100.2(16), 100.4.2 – footnote #1, 100.4.2 – footnote #3, 100.6.2, 100.7.2, 100.10.1, 100.10.2, 100.10.5, 100.11.1, 100.11.8, 100.14.1, 100.14.7, 100.19.1, 100.22.4, and 100.23.5. None of these amendments are intended to substantively modify the Regulation or to change the current practice of the Board.

Section 100.9.6, which details the experience requirements for certification, was reorganized to clarify the experience required for various certification levels. The Board also made explicit its long-standing practice of considering domestic and industrial wastewater treatment experience to be interchangeable for purposes of qualifying to sit for a certification examination.

The failed examination review required by statute (25-9-104, C.R.S.) is non-specific as to format; the Board has determined that the corresponding regulatory provision, section 100.11.5, shall likewise be non-specific as to format. This change permits the Board to accept the detailed, individualized analyses prepared by the examination provider as an appropriate examination review.

The Board has determined that the training required for certification renewal will have “core” and “supplemental” components. The amendment to sections 100.14.4 through 100.14.6 adopted by the Board clarifies the relationship between core and supplemental training, gives examples of core subject matter, specifically authorizes the granting of supplemental credit for non-listed topics, and reorganizes the sections so that they are more readily understood.

Section 100.18.3 is obsolete and substantively conflicts with the broad acceptance of prior certifications granted in section 100.9.1. The Board has determined that section 100.18.3 should be deleted.

100.40 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: OCTOBER 2004 RULEMAKING

Provisions of section 25-9-108, C.R.S., provide the specific statutory authority for the adoption of these amendments to the established regulatory provisions of Regulation 100 (5 CCR 1003-2). The Board also adopted, in compliance with section 24-4-103(4), C.R.S., the following statement of basis and purpose.

BASIS AND PURPOSE

A. New and Revised Fees.

The Board has revised section 100.22.2 to modify the current examination and administration fees. The existing \$25.00 examination fee is inadequate to cover the actual cost of certification exams provided by ABC. Up until now, the resulting deficit has been made up by the administration fee. However, the Board agrees with the CECTI and Certification Council proposal that it is more appropriate to increase the examination fee (to \$35.00), while reducing the administration fee (from \$60.00 to \$50.00) for those obtaining a new certification by examination. The net result will be no change in total fees for those passing a certification examination to obtain a new certification at a higher level. Those who take an examination and fail will incur a somewhat higher expense. The Board also agrees that it is appropriate not to make any change in the administration fees at this time for those obtaining renewal certifications or certification by reciprocity.

B. Cross-Experience Training for Certification Renewal.

Subsection 100.14.1 has been revised to allow a portion of the training units required for certification renewal to be obtained from courses approved as core training in categories other than the operator category for the certification being renewed. The Board has determined that this is consistent with the fact that “supplemental” training courses on a wide variety of topics are already allowed to provide a portion of the training units for certification renewal. This approach is also consistent with the fact that up to 50 percent of the experience requirement for operators qualifying to take certification examinations can be based on “cross-experience”.

The revised regulation clarifies that at least 50 percent of the training units for certification renewal must be obtained from core training courses approved in the certification category being renewed. The remainder of the training units may consist of any combination of supplemental training units and/or training units approved as core training in other certification categories. The Board also has included language to prevent “double-counting” the training units from a single course. For example, if a course has been approved for 1.0 training units in each of the certification categories, an operator renewing a class A water treatment operator certification may count the 1.0 training unit toward renewal but may not also use cross-experience credit for the same course, even though it has been approved for training units in other certification categories.

C. Examination Feedback.

The Colorado operators certification statute previously required that each of the Board’s nonprofit contractors “conducts failed exam reviews” following each certification examination cycle. This provision was amended in House Bill 04-1211, adopted by the 2004 session of the Colorado General Assembly, to provide that each contractor “provides feedback to examinees upon request following each examination”. Subsection 100.11.5 has been revised to require that feedback regarding applicants’ performance on the individual topics tested be provided to each person taking an operators certification examination. This new language goes beyond the revised statutory mandate, which only requires such feedback upon request. However, the Board has provided in the regulation for the automatic provision of feedback to all examinees, since that is consistent with the contractors’ current practice.

D. Specific Training Requirement for Operators Conducting Certain Quality Control Analyses

In order to maintain enforcement primacy under the Safe Drinking Water Act, the State must approve parties who are qualified to make and to assure the quality of certain analyses required by the Environmental Protection Agency ("EPA"). These requirements are detailed in the Colorado Primary Drinking Water Regulation, 5 CCR 1003-1, Article 7.5, "Disinfectant Residuals, Disinfection Byproducts, and Disinfection Byproduct Precursors." Colorado elected to approve certified operators as the parties approved by the State to perform these analyses.

To meet this requirement, the Board approved the original version of subsection 100.14.6 of Regulation 100 in May 2002. However, as originally adopted, the subsection was overly broad. The amendment approved by the Board in this rulemaking clarifies that subsection 100.14.6 applies only to those operators whose duties include performing the above-mentioned analyses and associated quality assurance procedures required by the article 7.5 of the Colorado Primary Drinking Water Regulation.

100.41 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE AND EMERGENCY FINDINGS: NOVEMBER 2004 RULEMAKING

Provisions of section 25-9-108, C.R.S., provide the specific statutory authority for the adoption of these amendments to the established regulatory provisions of Regulation 100 (5 CCR 1003-2). The Board also adopted, in compliance with section 24-4-103(4), C.R.S., the following statement of basis and purpose.

BASIS AND PURPOSE

The Board also adopted a new training unit course approval fee of \$50.00, to cover the cost of the contractors' review of training courses submitted through the new online review and approval system. The Board determined that it is appropriate for the costs of the training unit approval process to be covered by training providers. Establishing a reasonable fee for this service should also have the added benefit of discouraging submittal of training course approval applications for courses of marginal relevance or benefit to certified operators.

In order to address certain special circumstances, the Board has created three exceptions to the \$50.00 training unit approval fee. First, the Board intends that appropriate courses from accredited educational institutions in the United States, and equivalent institutions outside the United States, can be used for training unit credit for certification renewal without approval of the specific courses by the Board or its designee. However, some educational institutions may wish to have their courses listed with other approved training unit opportunities, which generally are posted on the web site of the Board and/or its designee. If an educational institution wishes to have its courses posted along with other approved training units, its courses will be subject to the usual \$50.00 fee and will be reviewed by the normal training unit review process.

The Board recognizes that in some instances an individual may take a course that provides relevant and appropriate operator training, but which has not been submitted by the course sponsor for training unit approval. For example, this could occur if an operator attends training at an out-of-state national conference that has not submitted its courses for approval in Colorado. To reduce the hardship on individuals seeking approval of such courses, the Board established a reduced fee of \$25.00 for applications for approval of a course submitted for review by an individual attending the course. To assure that this option is not used by course sponsors as an opportunity to avoid payment of the usual \$50.00 fee, the Board provided that any course submitted for approval by an individual attending a course will be approved only for that individual.

Finally, to account for other special circumstances that may arise, the Board established an opportunity for case-by-case waiver of the \$50.00 fee. The Board intends that its contractors may use this provision to avoid financial hardships and the potential unintended consequence of reducing training opportunities for Colorado operators. The Board assumes that this provision will apply infrequently.

The Board provided that the new training unit approval fee will apply to all courses approved for offering in 2005 and later. The Board understands that while some courses have already been submitted and reviewed for offering in 2005, course sponsors submitting such courses have been notified that final approval of such courses will not occur until finalization of this new fee. The Board determined that it is appropriate for all courses to be offered for calendar year 2005 and later to be subject to the same fee provisions, in order to provide for even-handed treatment. Therefore, the Board adopted the new training unit approval fee provisions on both an emergency and permanent basis.

EMERGENCY FINDINGS

On an emergency basis, the training unit course approval fee shall become effective November 30, 2004, and shall remain effective on an emergency basis until it becomes permanently effective on January 30, 2005 pursuant to section 24-4-103(5), C.R.S.. The Board further determined that this result is appropriate and should not result in hardship to course sponsors. This rulemaking was initiated in October 2004 after complying with the usual notice requirements. Possible approaches to the training unit approval fee were discussed at the October 2004 hearing and interested parties had an opportunity to discuss and comment on the proposal. In addition, December 30, 2004 would have been the normal effective date had final action been taken at the October 2004 hearing at the same time as the remainder of the proposed rule. Course sponsors have been aware of the intent to establish a new training unit approval fee for 2005 courses and relying on the usual effective date would now result in unequal treatment in favor of course sponsors that submitted applications for approval of 2005 courses prior to the effective date. Therefore, the Board finds that immediate adoption of these revisions to Regulation No. 100 is imperatively necessary to preserve public welfare and that compliance with the requirements of section 24-4-103(5), C.R.S. would be contrary to the public interest.

100.42 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: JULY 26, 2005 RULEMAKING

The provisions of sections 25-9-104(3) and 25-9-104(4), C.R.S., provide the specific statutory authority for the adoption of these regulatory provisions. The Board also adopted, in compliance with section 24-4-103(4), C.R.S., the following statement of basis and purpose.

BASIS AND PURPOSE

The Board adopted revisions to the drinking water treatment facility classification system in section 100.4 of this regulation in order to more precisely define some classifications, to broaden classifications to include newer technologies, and to remove certain inconsistencies in the former classifications. The classification categories have been indexed for clarity.

Ground Water Systems: Subsections 100.4.2(a) through (c).

Subsection 100.4.2(a). The deletion of footnote #2 is reflective of the Board's recognition that a level "1" water distribution system operator should have sufficient knowledge and skill to supervise a small ground water system that operates with a waiver of disinfection.

Subsection 100.4.2(c). The Board clarified that treatment technologies other than what may be commonly connoted by the term "filtration" are encompassed by the regulation. The Board also recognized that chemical addition to improve the aesthetic quality of drinking water (secondary drinking water standards as listed in 40 CFR 143) ordinarily should not raise the classification of a system beyond the "C" level. Ground water systems with treatment techniques or chemical additions, other than disinfection, that are used for the specific purpose of meeting primary drinking water requirements (40 CFR 141) should be classified under the criteria in subsection 100.4.2(g).

All Water Systems: Subsections 100.4.2(d) through (f).

Subsection 100.4.2(d). The Board intends that small, simple water systems that require filtration in addition to disinfection be classified a “D” systems only if the system utilizes disposable filters, i.e., filters that do not require periodic backwashing or other maintenance and which must be disposed of when they lose their effectiveness. The Board has determined that the type of disinfection utilized should not be restricted to non-gaseous chlorine and has deleted that qualifier from the regulation.

Subsection 100.4.2(e). The Board recognizes that the expertise required to operate water systems that use a variety of filtration and other treatment technologies (other than disposable filters or direct or conventional filtration) in order to meet primary drinking water standards is often equivalent to the skill required to operate water systems using the same techniques to improve the aesthetic quality of water. The classification of such systems is intended to be “C” for smaller systems. However, because of the enhanced public health risk in the case of system failure, the Board intends that the increase in classification level with size be accelerated for systems using filtration and other technologies to meet primary standards.

Subsection 100.4.2(f) Primary treatment techniques that incorporate or depend upon additional chemical treatment in order to function properly are intrinsically more complex to operate. An example of such a system would be a conventional filtration system, which ordinarily requires the additional steps of chemically aided coagulation and flocculation. The terms “conventional filtration” and “direct filtration” are defined in the Colorado Primary Drinking Water Regulations, articles 1.5.2(21) and 1.5.2(30), March 30, 2005, respectively. These definitions are intended to apply to Regulation 100, section 100.4.2(f). Such systems have significant monitoring, testing and adjustment requirements. The Board intends that systems utilizing any filtration technique or other treatment technology that, in and of itself, requires additional chemical treatment in order to meet primary drinking water requirements have an initial classification of “B”.

Chemical Addition: Subsections 100.4.2(g) through 100.4.2(i).

Subsection 100.4.2(g). Secondary drinking water standards have defined “secondary maximum contaminant levels”, SMCLs, which are non-enforceable (40 CFR 143). The Board intends that chemical addition for the specific purpose of meeting secondary drinking water standards, such as iron and manganese control, pH control, or water softening, should not affect the classification of a level “B” or “C” water system. Level “D” systems utilizing chemical addition for the specific purpose of meeting secondary drinking water standards should be individually evaluated under the authority of section 100.4.1 to determine the appropriate classification.

Subsection 100.4.2 (h). The Board intends that this classification category apply to systems that, in addition to the primary treatment process, utilize chemical treatment for the specific purpose of meeting the enforceable “maximum contaminant level” requirements for primary contaminants (40 CFR 141). An example of such a chemical treatment would be the use of lime softening for the specific purpose of controlling radionuclides. The Board also intends that disinfection is not to be considered as an “additional chemical treatment” within the meaning of Regulation 100, subsection 100.4.2(h).

Subsection 100.4.2(i). Although lead and copper are contaminants of special concern, they differ from most primary drinking water contaminants in that (1) they commonly occur in the distribution system, not in the source water; and (2) the methods of treatment for lead and copper are relatively non-complex. The Board, therefore, intends that systems that treat for lead and copper in the distribution system (a process commonly referred to as “corrosion control”) have a minimum classification of “C”. Should treatment be necessary because of the contamination of source water with lead and copper, a higher classification may be appropriate. The Division should evaluate such systems to determine whether an application of section 100.4.1(b) is appropriate.

Subsection 100.4.2(j). The Board intends that any water system utilizing fluoridation have a minimum classification of “C”, hence the designation of chlorination as a companion process to fluoridation has been deleted.

Multiple Treatment Processes: Subsection 100.4.2.4.

Systems utilizing multiple water treatment processes should be classified in accordance with the most complex process regularly used. This regulation already contains a parallel requirement for domestic and industrial wastewater systems, sections 100.5.4 and 100.6.4, and the Board has determined that the requirement should be included as part of the drinking water classifications.

100.43 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: FEBRUARY 14, 2006 RULEMAKING

The provisions of sections 25-9-104, C.R.S., provide the specific statutory authority for the adoption of these regulatory provisions. The Board also adopted, in compliance with section 24-4-103(4), C.R.S., the following statement of basis and purpose.

BASIS AND PURPOSE

The Board adopted revisions to a variety of provisions in this regulation in order to clarify the intent of certain provisions and to incorporate within the regulation the definitions of terms commonly used in the water and wastewater industries.

Definitions: Section 100.2.

Subsections 100.2(1), (7), and (9). The Board includes the definitions of “Bag or Cartridge Filters”, “Conventional Filtration Treatment”, and “Direct Filtration Treatment” in order to standardize the understanding of these treatment techniques as used in the water treatment facility classifications of subsection 100.4.2 of this regulation. The Board intends that these definitions be interpreted in a manner consistent with the Colorado Primary Drinking Water Regulation (5 C.C.R. 1003-1).

Subsection 100.2(17). The definition of “Plant Design Flow” is added to this regulation in order to clarify that the classification of a water or wastewater facility is to be based upon the capacity of the facility, as approved by the Division, and not upon the actual production of the facility.

Subsections 100.2(18) and (20). Definitions of “Primary Drinking Water Requirements” and “Secondary Drinking Water Standard” are included in order to remove the incorporation by reference of these terms in subsections 100.4.2(d),(e),(f),(g) and (h) of this regulation.

Subsection 100.2(23). The Board intends to clarify that the “Transient Non-Community” operator certification level, as described in subsection 100.19.2 of this regulation, covers only a specific subset of transient non-community public water systems.

Subsection 100.2(25). The Board intends that the term “validated examination”, as used in section 100.11 of this regulation, be interpreted in a manner consistent with the federal guidelines for facility operator certification examinations (Federal Register, Vol.64, No. 24; February 5, 1999.)

Water Facility Classification: Subsection 100.4.2

Subsections 100.4.2(d),(e),(f),(g) and (h). Cross-references to provisions of the Code of Federal Regulations are deleted by this amendment. The definitions of the previously cross-referenced terms are explicitly added to this regulation as subsections 100.2(18) and (20).

Subsection 100.4.2(k). The criterion for the classification of water vending machines is amended to be consistent with the terminology used in other facility classifications in section 100.4.2 of this regulation.

Qualifications and Classifications for Certification of Operators: Section 100.9

Subsections 100.9.2 and 100.9.3. The Board intends that a demonstration, by the applicant for a certification examination, of skills equivalent to the General Equivalency Diploma (GED) may be substituted for the requirement that an applicant hold either a high school diploma or a GED.

Subsections 100.9.4 and 100.9.8(a)(iv) and (b)(iv). The Board intends to clarify that once specific experience or education is used by an applicant to fulfill a requirement for certification, that same experience or education may not be used to meet any other requirement for the same certification.

Application for Certification: Section 100.10

Subsections 100.10.4, 5, and 6.

The Board intends to clarify the process by which an applicant may request a re-review of his or her application. All application denial notices should include the specific grounds upon which the application was denied. Such notices should include sufficient detail to allow the applicant to supply relevant supplementary information to the Board's designee in a timely manner.

The timeframes allowed for an applicant to request an application re-review or to request an appeal of an application denial are specified.

The Board intends that all material to be considered during a re-review or during an appeal must be submitted at the time of the request for re-review. Appeals to the Board will be evaluated based upon the material available during the re-review of the application. Material submitted after the re-review will not be considered by the Board at an appeal hearing, unless the operator provides a showing why such information could not have been submitted earlier in the process.

Education and Cross Experience Substituted for Experience Requirements: Section 100.12

Subsection 100.12.1(a). The Board intends to clarify that any education credit claimed as a substitute for experience must be post-secondary education. The Board intends that education obtained at institutions such as community colleges and post-secondary technical schools is acceptable.

Subsections 100.12.1(b) and (c). The Board intends to clarify that an approved and completed program, for which the applicant has received a diploma or certificate, is to be counted as a whole when used as a substitute for education. Experience equivalencies should be credited as specified in subsection 12.1(a). Only when an approved course of study has not been completed should the relevancy of individual courses be evaluated and a course-by-course determination of equivalency determined.

Certificates: Section 13

Subsection 100.13.7. The Board deleted this subsection as not necessary to this regulation.

Training Unit Requirements for Renewal of Certification: Section 100.14

Subsection 100.14.1. The Board recognizes that many training courses are approved for credit in multiple fields. While an operator may not count the same material twice toward the renewal of a single certification, the Board intends that operators be granted credit for the full time he or she attended a course. For example, a water treatment operator attends a six-hour course offering 0.4 Training Units (TUs) in water treatment and 0.6 training units in water distribution. For the renewal of a water treatment certification, the operator may count a total of 0.6 TUs for the course: 0.4 TUs may be counted toward the core requirement in water treatment and 0.2 TUs of the credit approved for water distribution may be counted as "outside the field" credit.

100.44 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: APRIL 24, 2007 RULEMAKING; ADOPTED JULY 31, 2007; EFFECTIVE SEPTEMBER 30, 2007

The provisions of sections 25-9-104 and 25-9-108, C.R.S., provide the specific statutory authority for the adoption of these amendments to the established regulatory provisions of Regulation 100 (5 CCR 1003-2). The Board also adopted, in compliance with section 24-4-103(4), C.R.S., the following statement of basis and purpose.

BASIS AND PURPOSE

Subsections 100.9.2 and 100.9.3. It is the intention of the Board to reflect the intent of the Environmental Protection Agency (EPA) regarding the substitution of education and/or experience for the general prerequisite that a high school diploma or general equivalency diploma (GED) be held by all candidates for certification. EPA intends that candidates not meeting this prerequisite have education and/or experience beyond that which is required of other candidates. The Board has amended subsections 100.9.2 and 100.9.3 to clarify that (1) the GED is the only automatically acceptable alternative to a high school diploma and that (2) for candidates lacking a high school diploma or GED, there will be an additional experience and education requirement in order to qualify for examination. The choice of a six month period of additional experience is intended to reflect the experience equivalent of a full semester of academic credit as described in section 100.12.1(a) of this regulation.

Subsections 100.12.1(b)(i) and 100.12.1(c). While recognizing the value of all post-secondary education, the Board has revised these sections of the regulation to provide that programs or courses acceptable as a year-for-year substitute for up to 50% of the direct experience requirements of this regulation be limited to those that the Board has determined are directly relevant to the operation of water and wastewater facilities. The previous version of Regulation No. 100 allowed any "technically oriented" courses or programs to substitute for up to 50% of the experience requirement. Addition of the "directly relevant" language reflects the Board's intent to be more specific with respect to the types of programs or courses that may receive credit. The Board has adopted language from an ABC report on operator certification program standards to provide examples of the types of courses or programs that would be considered "directly relevant". The Board intends that its contractors will apply this provision in the first instance, subject to appeal and final determination by the Board.

Subsection 100.12.1(b)(ii). Although a degree that does not meet the criteria of section 100.12.1(b)(i) does not provide the specific background skills for entry into the water and wastewater professions, the Board recognizes that applicants who have completed a post-secondary degree program have demonstrated a set of learning abilities which should enable them to more efficiently acquire many of the skills normally developed by hands-on experience. The Board has determined, therefore, that a 25% education credit toward meeting the experience requirement is appropriate for applicants holding post-secondary degrees, regardless of the fields in which the degrees are granted.

Subsection 100.13.8. This section is deleted as duplicative of subsection 100.13.7.

Subsection 100.22.2. The Board has revised subsection 100.22.2 to modify the examination and administration fees. The previous \$35.00 examination fee is inadequate to cover the actual cost of certification exams provided by ABC, including preparation and administration of those exams. Additionally, the previous administration fee of \$50.00 is inadequate to cover the costs incurred in maintaining the database of operators, issuing and mailing certificates and other correspondence. The Board agrees with the CECTI and Certification Council proposal that it is more appropriate to increase the examination fee (to \$45.00) and to increase the administration fee (to \$55.00) for those obtaining a new certification by examination. The net result will be an increase of \$15.00 in total fees for those passing a certification examination to obtain a new certification at a higher level. Those who take an examination and fail will incur a \$10.00 increase.

The Board also agrees that it is appropriate to increase the administration fees at this time for those obtaining renewal certifications or certification by reciprocity from \$60.00 to \$70.00 to cover administrative costs. The Board also determined that it is appropriate to add a \$20.00 fee to cover the cost of providing replacement certification documentation.

Water Distribution and Wastewater Collection Classifications

A. Operator Certification Levels

The Board has revised subsection 100.9.7 to include a level 3 certification requiring 3 years experience. Further, the Board has agreed to recognize current Class 3 operators as Class 4 operators and authorizes the issuance of operator certificates reflecting Class 4 certification. The Board has determined that this is appropriate, based on the four-year experience requirement previously in place for Class 3 operators and based on the content of the previous Class 3 examinations. Any current restricted Class 3 collection and distribution certification would become a restricted Class 4 certification.

B. System Classifications

The Board has revised subsections 100.7.2 and 100.8.1 to modify the current Water Distribution and Wastewater Collection Systems classification tables to address the complexity of very large systems. Class 3 systems will be changed from serving populations greater than 25,000 to serving populations from 25,001 to 100,000. The Board has added a Class 4 classification that serves populations greater than 100,000.

Corresponding revisions have been adopted for sections 100.14 and 100.21.

100.45 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: APRIL 28, 2009 RULEMAKING; ADOPTED APRIL 28, 2009; EFFECTIVE JUNE 30, 2009

The provisions of section 25-9-104(4), C.R.S. (2008), provide the specific statutory authority for the adoption of these amendments to the established regulatory provisions of Regulation 100 (5 CCR 1003-2). The Board also adopted, in compliance with section 24-4-103(4), C.R.S., the following statement of basis and purpose.

BASIS AND PURPOSE

Subsection 100.2(12). The Board added a definition of "Responsible Person" that sets requirements for persons charged with the responsibility for supervising Class 2 industrial wastewater operations and for ensuring compliance with the facility's discharge permit requirements. The Board intends that such persons receive adequate and ongoing training in areas relevant to their responsibilities, such as specific measures used to meet effluent limits, monitoring, inspection, planning, reporting, and documentation requirements.

Subsection 100.2(18). The Board adopted a definition of "Passive Wastewater Treatment" that parallels the statutory language of section 25-9-104(4)(d), C.R.S.

Subsection 100.6.1. The Board adopted this amendment to Regulation 100 to implement the provisions of section 25-9-104(4), C.R.S., as amended by the Colorado General Assembly in 2008. The Board recognizes that there are wastewater treatment activities in Colorado that require only passive treatment in order to meet Colorado Discharge Permit System ("CDPS") effluent limitations. The Board also recognizes that many of these activities are currently managed under a variety of Best Management Practice ("BMP") requirements. Additionally, the Board recognizes that it is current practice in many of these industrial activities to place the facility/activity under the supervision of an environmental

professional responsible for effluent quality, for overseeing monitoring, and for ensuring timely and accurate discharge monitoring reporting.

In light of the above considerations, the Board divided permitted industrial wastewater facilities into two distinct classes. Class 2 facilities shall not be subject to the requirements to operate under the supervision of a certified operator. The Board maintained the requirement for all industrial wastewater facilities not classified as class 2 facilities to remain subject to the requirements of Regulation 100 to operate under the supervision of a certified operator and designated these facilities as class 1 facilities.

Subsection 100.6.1(b)(i). The Board has determined that facilities/activities which discharge solely under the authority of stormwater permits shall be classified as class 2 facilities without the need for specific Board action other than the adoption of this amendment to Regulation 100. The Board recognizes that such facilities utilize only passive treatment or no treatment of stormwater and are subject to significant requirements, including the filing of and adherence to Stormwater Management Plans. The Board has determined that facilities subject to stormwater discharge permits are appropriately classified as class 2 pursuant to the criteria in section 25-9-104(4) C.R.S. since these discharges generally do not contain substantial concentrations of toxic pollutants and do not require chemical, mechanical, or biological treatment. The Board intends that the designation as class 2 shall include facilities discharging under the authority of municipal stormwater permits, industrial stormwater permits and construction stormwater permits. The Board does not grant automatic class 2 classification to facilities discharging under the authority of combined process water and stormwater permits.

The Board has further determined that facilities/activities discharging pursuant to the Water Quality Control Division's "Low Risk Discharge Policy" shall be classified as class 2 facilities. The Board recognizes that the discharge from such activities is considered to pose minimal risk of environmental degradation. Such discharges generally do not contain substantial concentrations of toxic pollutants and do not require chemical, mechanical, or biological treatment. The Board further recognizes that water distribution systems holding "Treated Water Distribution System" permits are already required to be under the direct supervision of certified water distribution system operators whose training and certification criteria include the handling of the type of discharges covered under these permits. Similarly, water treatment facilities holding "Water Treatment Plant Discharge" permits are already required to be under the direct supervision of certified water treatment operators whose training and certification criteria include the handling of the type of discharges covered under these permits.

Subsection 100.6.1(b)(ii). The Board recognizes that there are additional CDPS general industrial discharge permits whose effluent requirements can ordinarily be met by utilizing, at most, passive treatment techniques. These general industrial permits are listed within the amendment in subsection 100.6.1(b)(ii). The Board has provided that facilities holding these discharge permits shall be recognized as class 2 facilities based upon the Water Quality Control Division's verification of a facility's written certification that effluent limitations can be met utilizing only passive treatment and that the facility is under the supervision of a responsible person as defined in subsection 100.2(21) of this regulation. Verification by the Division will serve to confirm that a facility qualifies as a class 2 facility consistent with the classification determinations made by the Board in revisions to Regulation 100. The Board intends that the Division retain a record of such classifications. The Board recognizes that facilities denied a class 2 classification may appeal the Division's determination to the Board pursuant to section 100.24 of this regulation.

Subsection 100.6.1(b)(iii). The Board further recognizes that certain facilities are required to hold individual industrial discharge permits rather than general industrial discharge permits. Individual permits are usually required either because of the sensitivity of the receiving waters, the nature of the effluent, or the complexity of the treatment required in order to meet effluent limitations. The Board has reserved to itself the authority to grant a class 2 classification to such facilities. The Board has provided that such facilities may submit a request for reclassification to the Board. This request shall include a demonstration that the facility's operations meet the applicable considerations of section 25-9-104(4), C.R.S.; that effluent limitations can be met utilizing only passive treatment; and that the facility is under

the supervision of a responsible person as defined in subsection 100.2(21) of this regulation. The Board will forward the material submitted with the request to the Division for evaluation and recommendation. The Board will approve or deny such requests at an adjudicatory hearing at a regular Board meeting.

The Board recognizes that there are certain general industrial permits that authorize discharges from types of activities which are inherently more complex than those described in section 100.6.1(b)(ii) above. It is the Board's intention that facilities discharging under the authority of general permits other than those listed in subsection 100.6.1(b)(ii) should follow the reclassification procedure outlined for facilities holding individual industrial discharge permits.

Conditions Applicable to Subsections 100.6.1(b)(2) and 100.6.1(b)(iii). In order to ensure that facilities meet the requirements for class 2 classification on a continuing basis, the Board has provided that each facility classified as a class 2 facility under subsection 100.6.1(b)(ii) or subsection 100.6.1(b)(iii) shall submit an annual certification confirming that the conditions under which its classification was granted are still being met and that ongoing annual training has been provided to the designated responsible person. The Board does not intend that a detailed accounting of the nature or timing of such training be submitted with each annual certification.

The Board may reclassify a class 2 facility to class 1 if that facility fails to meet the requirements of its discharge permit or if the facility's operational practices result in a direct, negative impact on the public health or the environment.

100.46 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE:
SEPTEMBER 29, 2009 RULEMAKING; ADOPTED SEPTEMBER 29, 2009; EFFECTIVE
NOVEMBER 30, 2009

The provisions of section 25-9-107, C.R.S., provide the specific statutory authority for the adoption of these amendments to the established regulatory provisions of Regulation 100 (5 CCR 1003-2). The Board also adopted, in compliance with section 24-4-103(4), C.R.S., the following statement of basis and purpose.

BASIS AND PURPOSE

Subsection 100.6.1. The Board added subsection 100.6.1 in April 2009 to implement the provisions of section 25-9-104(4), C.R.S., as amended by the General Assembly in 2008. The Office of Legislative Legal Services, which conducts legal reviews of all newly-promulgated agency rules, subsequently expressed concerns regarding the apparent "incorporation by reference" of the Division's Low Risk Discharge Policy in subsection 100.6.1(b)(i)(B). Based on these concerns, the Board decided as part of this rulemaking proceeding to delete subsection 100.6.1(b)(i)(B) (and to re-number the subsection accordingly).

The Board's initial intent in referencing the Division's Policy was to categorically exempt such facilities from the certified operator requirement because of their low risk of impacting the quality of state waters. The Board and the Division have agreed that the Board's intent can be accomplished alternatively through language in the Division's Low Risk Discharge Policy itself. Thus, the Low Risk Discharge Policy will soon be amended to state that the Division will use its enforcement discretion with respect to facilities which do not have a certified operator, where such facilities can prove that they are discharging pursuant to the Policy and implementing the best management practices outlined in the related guidance documents.

Subsection 100.13. The Board recognizes that section 25-9-107, C.R.S., refers to the "award" of a certificate, that certificates shall be "awarded for a period of three years", and that the timing of automatic revocation for non-renewal is referenced to the "expiration date" of the certificate. Earlier versions of this regulation, however, reference the date of automatic revocation of a certificate to the "issue" date.

Because certificates may not always be issued exactly three years prior to the expiration date, this difference in language is significant.

The Board has, therefore, chosen to align the language of subsection 100.13 of this regulation more closely with the language of the governing statute and refer the three year validity period of all certificates either to the date of “award” (for new certificates) or to the date of expiration of the previous certificate (for renewed certificates). It is clarified that renewed certificates are valid for three years from the date of expiration of the certificate being renewed and not from the date of issue of the renewal certificate.

The Board further determined to adopt language which clarifies that the date of issue of a certificate does not determine the date on which a non-renewed certificate is automatically revoked. The Board intends to clarify that certificates shall be automatically revoked if not renewed within two years of the expiration of the certificate.

100.47 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: NOVEMBER 2009 RULEMAKING; ADOPTED NOVEMBER 24, 2009; EFFECTIVE JANUARY 30, 2010

Provisions of section 25-9-108, C.R.S., provide the specific statutory authority for the adoption of these amendments to the established regulatory provisions of Regulation 100 (5 CCR 1003-2). The Board also adopted, in compliance with section 24-4-103(4), C.R.S., the following statement of basis and purpose.

BASIS AND PURPOSE

A. New and Revised Fees.

The Board has revised section 100.22.2 to modify the current examination fees by establishing a \$35.00 fee for online testing. Examination fees currently cover the costs associated with certification when certification examinations are taken in a written format during the regularly scheduled examination periods. Recent advances in technology have now made it possible to offer certification examinations in an electronic format. While this technology offers advantages in the form of convenience, enhanced security and immediate results, there are added costs associated with this form of testing. These costs include added cost for the setup and maintenance of the electronic testing system and the cost of administering and staffing an examination facility. The Board concludes that since electronic testing is an option offered for the convenience of the applicant, the added costs associated with this form of testing should be met by the assessment of a fee specific to electronic examinations and should not be met by an increase in the existing examination fee.

B. Other Revisions

The Board has also revised sections 100.9.6, 100.9.8, 100.11.1, 100.11.3, and 100.13.8 to modify references to “written examinations” in order to accommodate electronic testing.

100.48 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: NOVEMBER 2011 RULEMAKING ADOPTED NOVEMBER 29, 2011; EFFECTIVE JANUARY 30, 2012

Provisions of section 25-9-108, C.R.S., provide the specific statutory authority for the adoption of these amendments to the established regulatory provisions of Regulation 100 (5 CCR 1003-2). The Board also adopted, in compliance with section 24-4-103(4), C.R.S., the following statement of basis and purpose.

BASIS AND PURPOSE

The Board determined that it was necessary to revise Regulation 100 to reflect a change in its testing policy which, before this hearing, consisted of requiring operators to take standard “multiple entry” exams to acquire certification for the various classes within the certification categories. The material on such

exams covers the lower levels or classes within a certification category up to the certification level sought. The Board is now changing to a “sequential” testing scheme; each test focuses on the material for a particular class/level of certification within each certification category. Operators will now be required to hold a certification in the class immediately below the class for which the application is being made, and thus the operators will not be able to “skip” any classes of certification in progressing to the higher classes. The Board has determined that it is prudent to make this change in policy for the following reasons.

The Board agrees with recent findings by the Association of Boards of Certification (ABC) that there are certain deficiencies with the multiple entry exam approach. For example, operators who passed the Class 4 Distribution exam by doing very well with the lower level exam questions could actually do very poorly on the questions specific to Class 4. This indicates that the multiple entry approach may not provide an accurate indication of proficiency in the skills required of a Class 4 Distribution operator. For this reason, ABC is no longer developing standardized multiple entry exams for their clients.

Additionally, the Board was persuaded by the results of an analysis by a psychometrician hired by its Contractors to evaluate knowledge required of Colorado’s operators for the various certification categories and the classes within each. Exam blue prints have been developed which support the use of sequential testing because some areas of knowledge are tested more thoroughly at a lower level than at an upper level. The Board also considered the issue of reciprocity, as there will be very few, if any, states using multiple entry exams by the end of 2011. The Contractors’ reciprocity committees will benefit from a sequential testing scheme because it will allow an equal comparison of Colorado’s testing requirements with those of other states.

Accordingly, the Board added new section 100.9.7 to include the new requirement that in order to qualify to sit for an exam, an applicant must hold a certification for the same category and in the class immediately below the class for which the application is being made. The Board also revised the corresponding “Prior Certification and Experience Requirements” table in section 100.9.8 to consolidate and simplify the explanation of the experience requirements for the various certification categories and classes within each. Minor revisions were also made to section 100.9.6 for consistency with the other changes.

The Board agrees with the Contractors’ assessment that relatively few operators will be impacted by this change in testing policy, as most operators already gain the required experience and take examinations with the intent to advance sequentially through a particular certification category. For those few operators who currently have the requisite experience to bypass lower level exams and may wish to skip to higher class of certification, they should be able to obtain their desired level of certification in an expeditious manner. The Contractors have indicated to the Board that, beginning in 2012, they will be expanding from their current offering of two examination cycles per year to three cycles. This added exam cycle will allow operators who meet higher level experience requirements to go through the sequential testing process more quickly in order to obtain their desired level of certification.

100.49 STATEMENT OF BASIS, SPECIFIC STATUTORY AUTHORITY AND PURPOSE: FEBRUARY 2012 RULEMAKING; ADOPTED APRIL 24, 2012; EFFECTIVE JUNE 30, 2012

Provisions of section 25-9-108, C.R.S., provide the specific statutory authority for the adoption of these amendments to the established regulatory provisions of Regulation 100 (5 CCR 1003-2). The Board also adopted, in compliance with section 24-4-103(4), C.R.S., the following statement of basis and purpose.

BASIS AND PURPOSE

The Board determined that it is necessary to revise Regulation 100 to reflect the following changes:

Generally, the Board added clarifications where appropriate, deleted obsolete language, corrected referenced citations, and made grammatical corrections. Stylistic changes throughout the text of the

regulation were made for uniformity and clarity. Where possible, the Board reorganized and combined like requirements into unified sections, i.e., section 100.9.9 describing the special rules for satisfying the minimum experience requirements for Class D, Class 1, Class S and Class T certifications. Because the minimum experience requirement is the same for all three classes, sections 100.9.9(a), 100.9.9(b), and 100.9.6 have been combined into 100.9.9.

Section 100.1. For consistency with other Department regulations, the Board added reference to the specific statutory authority of the Board to promulgate regulations.

Section 100.2. The Board added definitions for the “Colorado Discharge Permit System Regulation” and the “Colorado Primary Drinking Water Regulations;” modified the definition for “public water system” to be consistent with the definition in the “Colorado Primary Drinking Water Regulations;” deleted language in the definition of “operator” that was redundant with the section of the regulation pertaining to certified operator duties; deleted the definition for “small system” because this classification was renamed “Class S” in this rulemaking; deleted the definition for “transient non-community certification” because this term is no longer used; and modified the definition of “water treatment facility” to match the statutory definition, 25-9-102(7), C.R.S.

Sections 100.4.1, 100.5.1, 100.7.1 and 100.8.1. The Board recognizes the confusion resulting from the use of like terms, specifically: 1) transient non-community water system, transient non-community water system operators certification, and transient non-community water system facility classification; and 2) small system under the Colorado Primary Drinking Water Regulations, small water system operators certification, small wastewater system operators certification, small water system facility classification and small wastewater facility classification. Because transient non-community water systems, small water systems, and small wastewater systems are subcategories of Class D water or wastewater treatment facilities with a Class 1 water distribution or wastewater collection system rather than distinct facility classifications, they have been removed as facility types.

Accordingly, the Board revised sections 100.4.1, 100.5.1, 100.7.1, and 100.8.1 to remove references to transient non-community system, small water system, and small wastewater system from the respective lists of facility classifications, and corrected the number of facility classification types in each section; and the sentence preceding the table in section 100.7.2 referencing small water system and transient non-community water system facility classifications was also deleted.

For clarity, the Board also changed the names of the following operator certifications: transient non-community systems to “Class T,” small water system to “Class S,” and small wastewater system to “Class S.” Sections 100.9.2 (d), (e), and (f), containing requirements for certification by examination, define when Class T and Class S certifications are valid to operate a Class D/Class 1 facility.

Section 100.6. The Colorado Discharge Permit System is a self-reporting program, and the Board recognizes that large numbers of the permits issued to facilities that meet the requirements for the Class 2 industrial facility exemption under Regulation 100 are never used or are effective for only short periods of time. The Board also recognizes the inability of the Division to verify on an annual basis each facility’s certification that it meets the requirements for the Class 2 industrial facility exemption.

Accordingly, the Board simplified the exemption process for Class 2 industrial facilities to reduce the regulatory reporting burden on the Division and on businesses operating within the State. A provision requiring facilities to notify the Division when they no longer meet the requirements of the exemption was added to ensure timely transition to operation under the supervision of a certified operator. The Board also added the new general “Pesticides” permit to section 100.6.1(b)(i)(C), and removed the specific industrial general permit numbers to prevent the need to modify the regulation each time the Division discontinues or adds to the permit numbering schema for the identified activity types.

Section 100.9, 100.10, 100.11, 100.12, 100.13, 100.14, 100.15, 100.16, 100.20, 100.21. The Board added language to clarify and to incorporate language from its policies and procedures regarding the

following topics: certification requirements; minimum education and experience requirements; criteria for evaluation of experience; application procedures; substitution for the experience requirements; approval of training units, educational courses, and institutions; procedures for purchase of new certificates, renewal of certificates, and certificates by reciprocity; training unit requirements for renewal of certification; expired certificates; duties of certified operators duties of operators in responsible charge; facility owners' responsibilities, including the role of contract operators; and disciplinary actions, including clarified terminology and procedures.

Section 100.9.3 and 100.13.1. The Board recognizes the issues many small facilities face in ensuring they have trained certified operators. The Board also recognizes that the certified operator profession has an aging work force, and wishes to encourage dedicated young people to enter the profession. Accordingly, the Board added specific language regarding the examination and certification requirements for applicants participating in an approved high school program to encourage them to enter the water and wastewater fields. Specifically, the revised language allows a student to sit for an entry level certification examination prior to graduation from high school, with the provision that the certification will only be issued when the examinee successfully passes the examination and submits proof of graduation.

Section 100.13.1 The Board added a deadline of three years from the date of notification of certification eligibility to apply for the certificate. It is the Board's intention that after the three year deadline has expired, an individual would need to re-apply and retake the examination.

Section 100.13.5(a). The Board added the requirement that in order to obtain a certificate by reciprocity, persons passing exams in other states, territories, or countries must also acquire qualifying experience in the state, territory, or country in which they obtained their certificate. The Board wishes to maintain Colorado's high standards for operator certification, and this requirement is intended to deter persons (particularly Colorado-based operators) from taking certification exams in other states, territories, or countries as a means to more easily obtain a Colorado certification. The Board currently requires that exams taken in other states by reciprocity applicants must be adequate, validated, and "of a standard not lower" than Colorado's. The Board believes, however, that this additional requirement will help streamline the reciprocity process and make it less subjective in situations where an applicant could have taken an exam in Colorado, but instead chose to take it elsewhere with the intent to find a less challenging exam.

Section 100.14.2. For ease of reference, the Board consolidated the training unit requirements that were previously listed in narrative in this subsection into a table.

Section 100.18. The Board added the responsibility for a facility owner to ensure the employment agreement with a certified operator reflects the requirements of an operator in responsible charge. The Board also defined the decisions reserved to the operator in responsible charge and modified the reporting requirements of facility owners.

Section 100.18.5. For consistency with other changes in the regulation, references to Class S and Class T were added to the table regarding criteria for operators in responsible charge.

Section 100.19. In provisions regarding administration fees, the Board clarified that there is no additional fee for a standard 6 x 9 inch certificate, but that an additional fee of \$5.00 will be charged for operators who opt for a larger size of certificate. Operators have had this option since 2008, but the Board believes it is appropriate to formalize this practice through its Regulations. The Board determined that the additional fee is necessary to cover postage and other incidental administrative costs associated with the larger certificate. The Board also added a \$50 late fee for purchases of certificates 61 or more days after the date of the letter notifying the applicant of eligibility to receive certification and for renewal of a certificate after the expiration date. The Board found that the \$50 amount is necessary and appropriate to cover administrative costs associated with delays in application for certification or certification renewal.

Section 100.21. For consistency with other Department regulations, the Board defined a timely appeal to the Board as submitting the request for hearing within thirty (30) days of notice of a decision by the Board's designee or the Division.

Section 100.25. This section regarding "Transitional Renewal Training Unit Requirements" was removed as obsolete.

The Board postponed the adoption of proposed sections 100.16.3(g), 100.16.3(h) and 100.16.4(a)-(f) regarding requirements for delegation of duties to uncertified personnel until a later rulemaking to allow time for additional stakeholder input.

Attachment 2

Colorado Attorney General's Certification of Legal Authority to Administer the Operator Certification Program for Public Water Systems



John W. Suthers
Attorney General

Cynthia H. Coffman
Chief Deputy Attorney General

Daniel D. Domenico
Solicitor General

STATE OF COLORADO
DEPARTMENT OF LAW

**Natural Resources and
Environment Section**

Ralph L. Carr
Colorado Judicial Center
1300 Broadway, 7th Floor
Denver, Colorado 80203
Phone (720) 508-6000

June 12, 2013

Mr. Shaun McGrath
Regional Administrator, Region 8
United States Environmental Protection Agency
1595 Wynkoop Street
Denver, CO 80202-1129


RE: Attorney General Certification Regarding the Enforceability of Colorado's
Operator Certification Program

Dear Mr. McGrath:

This letter is provided in accordance with the requirements of the U.S. Environmental Protection Agency's Operator Certification Guidelines, and specifically, "Baseline Standard No. 1." On April 24, 2012, the Colorado Water and Wastewater Facility Operators Certification Board ("Board") adopted revisions to its "Water and Wastewater Facility Operators Certification Requirements," Regulation No. 100 (5 C.C.R. 1003-2), which became effective on June 30, 2012. I hereby certify pursuant to my authority as Senior Assistant Attorney General and as counsel for the Board that these revisions did not impact the State of Colorado's legal authority to fully implement and enforce the requirements of its operator certification program.

Sincerely,

FOR THE ATTORNEY GENERAL


ANNETTE M. QUILL
Senior Assistant Attorney General
Natural Resources and Environment Section
Colorado Office of the Attorney General

Ralph L. Carr Judicial Center
1300 Broadway, 7th Floor
Denver, Colorado 80203
Telephone: 720-508-6264
Facsimile: 720-508-6039
E-mail: annette.quill@state.co.us

Attachment 3

2012 Sunset Review: Water and Wastewater Facility Operators Certification Board

October 15, 2012



Office of Policy, Research and Regulatory Reform

2012 Sunset Review: Water and Wastewater Facility Operators Certification Board

October 15, 2012





John W. Hickenlooper
Governor

October 15, 2012

Members of the Colorado General Assembly
c/o the Office of Legislative Legal Services
State Capitol Building
Denver, Colorado 80203

Dear Members of the General Assembly:

The mission of the Department of Regulatory Agencies (DORA) is consumer protection. As a part of the Executive Director's Office within DORA, the Office of Policy, Research and Regulatory Reform seeks to fulfill its statutorily mandated responsibility to conduct sunset reviews with a focus on protecting the health, safety and welfare of all Coloradans.

DORA has completed the evaluation of the Colorado Water and Wastewater Facility Operators Certification Board. I am pleased to submit this written report, which will be the basis for my office's oral testimony before the 2013 legislative committee of reference. The report is submitted pursuant to section 24-34-104(8)(a), of the Colorado Revised Statutes (C.R.S.), which states in part:

The department of regulatory agencies shall conduct an analysis of the performance of each division, board or agency or each function scheduled for termination under this section...

The department of regulatory agencies shall submit a report and supporting materials to the office of legislative legal services no later than October 15 of the year preceding the date established for termination....

The report discusses the question of whether there is a need for the regulation provided under Article 9 of Title 25, C.R.S. The report also discusses the effectiveness of the Colorado Department of Public Health and Environment (CDPHE) and staff in carrying out the intent of the statutes and makes recommendations for statutory changes in the event this regulatory program is continued by the General Assembly.

Sincerely,

Barbara J. Kelley
Executive Director



John W. Hickenlooper.
Governor

Barbara J. Kelley
Executive Director

2012 Sunset Review: Colorado Water and Wastewater Facility Operators Certification Board

Summary

What Is Regulated?

Water and wastewater facility operators perform one or more of the following critical functions: treat water to make it suitable for drinking, assure water is distributed to customers, oversee the collection of wastewater, and treat collected wastewater to ensure it is safe to flow back into streams and reservoirs or to be used for irrigation.

Why Is It Regulated?

Requiring facility operators to meet minimum requirements assures a standard level of competency. Colorado's operator certification program also fulfills the U.S. Environmental Protection Agency's mandate that states require water treatment and water distribution facility operators to meet minimum standards.

Who Is Regulated?

In 2011, there were 5,650 certified operators holding 10,144 certifications.

How Is It Regulated?

The Colorado Water and Wastewater Facility Operators Certification Board (Board), housed within the Water Quality Control Division of the Colorado Department of Public Health and Environment (Division and CDPHE, respectively), is vested with the authority to regulate water and wastewater facility operators. In order to qualify for certification, applicants must meet certain education and experience requirements and pass the appropriate certification examination. The Division bears the primary responsibility for ensuring that water and wastewater facilities are operating under the direct supervision of an operator in responsible charge (ORC) that is, a certified operator holding a certification equal to or higher than the classification of the facility.

What Does It Cost?

In fiscal year 10-11, it cost the Board \$132,052. In calendar year 2011, Colorado Environmental Certification and Testing, Inc. and the Certification Council—the two nonprofits the Board contracts with to administer the program—spent a total of \$503,920.

What Disciplinary Activity Is There?

From fiscal year 06-07 to 10-11, the Board issued a total of six disciplinary actions—four letters of reprimand and two consent agreements—against individual facility operators.

In 2011, nearly 98 percent of all water and wastewater facilities were in compliance with the ORC requirement. The Division took four formal actions, all of which were Notices of Violation without Penalty, against non-compliant facilities.

Key Recommendations

Continue the Board for seven years, until 2020.

Clean drinking water and the safe disposal of wastewater are essential to the public health and welfare. By assuring certified operators meet certain minimum requirements, taking disciplinary action against operators who violate the law, and promulgating rules governing the operation of water and wastewater facilities, the Board protects the health and welfare of Colorado citizens. For these reasons, the Board should be continued. To monitor progress on the issue of persistently low examination pass rates, the program should be continued for seven years, until 2020.

Change the seat on the Board for the Colorado Rural Water Association to a more general small-systems seat.

The Colorado Rural Water Association (CRWA) represents the interests of small systems in Colorado. However, there are other organizations operating within Colorado that also represent the interests of small systems. When considering board composition, it is good policy to name the constituency a board seat is intended to represent rather than designating that seat for a specific organization. In that spirit, the General Assembly should repeal the seat designated for CRWA and instead create a seat for an individual representing the interests of small systems, that is, systems serving 3,300 or fewer individuals.

Allow the Board to exempt certain domestic wastewater facilities from the requirement that they operate under the supervision of a certified operator.

There are instances where domestic wastewater treatment facilities could be operated safely without ORC supervision. Granting the Board the authority to establish subsets of domestic wastewater facilities that are not required to operate under ORC supervision would relieve the regulatory burden on small businesses and allow the Division to focus its enforcement efforts on facilities that truly do require ORC supervision to operate safely. Exempted facilities would remain under the regulatory authority of CDPHE and facility owners would still have to obtain applicable wastewater discharge permits, meet reporting requirements, and ensure the facilities are operated in compliance with all applicable state and federal laws.

Major Contacts Made During This Review

Certification Council
Colorado Department of Public Health and Environment
Colorado Environmental Certification and Testing, Inc.
Colorado Rural Water Association
Colorado Water and Wastewater Facility Operators Certification Board
Operator Certification Program Office
U.S. Environmental Protection Agency, Region 8

What is a Sunset Review?

A sunset review is a periodic assessment of state boards, programs, and functions to determine whether or not they should be continued by the legislature. Sunset reviews focus on creating the least restrictive form of regulation consistent with protecting the public. In formulating recommendations, sunset reviews consider the public's right to consistent, high quality professional or occupational services and the ability of businesses to exist and thrive in a competitive market, free from unnecessary regulation.

Sunset Reviews are Prepared by:
Colorado Department of Regulatory Agencies
Office of Policy, Research and Regulatory Reform
1560 Broadway, Suite 1550, Denver, CO 80202
www.askdora.colorado.gov



Table of Contents

Background.....	1
Introduction.....	1
Types of Regulation.....	2
Sunset Process.....	4
Methodology.....	4
Profile of the Profession	5
Legal Framework.....	7
History of Regulation	7
Federal Law	8
Colorado Law	9
Program Description and Administration	18
Examinations.....	20
Certification	23
Training Unit Approval.....	25
Complaints/Disciplinary Actions	25
Analysis and Recommendations	28
Recommendation 1 – Continue the Water and Wastewater Facility Operators Certification Board for seven years, until 2020.	28
Recommendation 2 – Change the seat on the Board for the Colorado Rural Water Association to a more general small-systems seat.....	30
Recommendation 3 – Allow the Board to exempt certain domestic wastewater facilities from the requirement that they operate under the supervision of a certified operator.	31
Recommendation 4 – Create separate statutory sections delineating the responsibilities of the Board, the Division, and any nonprofit corporations under contract with the Board.	32

Background

Introduction

Enacted in 1976, Colorado's sunset law was the first of its kind in the United States. A sunset provision repeals all or part of a law after a specific date, unless the legislature affirmatively acts to extend it. During the sunset review process, the Department of Regulatory Agencies (DORA) conducts a thorough evaluation of such programs based upon specific statutory criteria¹ and solicits diverse input from a broad spectrum of stakeholders including consumers, government agencies, public advocacy groups, and professional associations.

Sunset reviews are based on the following statutory criteria:

- Whether regulation by the agency is necessary to protect the public health, safety and welfare; whether the conditions which led to the initial regulation have changed; and whether other conditions have arisen which would warrant more, less or the same degree of regulation;
- If regulation is necessary, whether the existing statutes and regulations establish the least restrictive form of regulation consistent with the public interest, considering other available regulatory mechanisms and whether agency rules enhance the public interest and are within the scope of legislative intent;
- Whether the agency operates in the public interest and whether its operation is impeded or enhanced by existing statutes, rules, procedures and practices and any other circumstances, including budgetary, resource and personnel matters;
- Whether an analysis of agency operations indicates that the agency performs its statutory duties efficiently and effectively;
- Whether the composition of the agency's board or commission adequately represents the public interest and whether the agency encourages public participation in its decisions rather than participation only by the people it regulates;
- The economic impact of regulation and, if national economic information is not available, whether the agency stimulates or restricts competition;
- Whether complaint, investigation and disciplinary procedures adequately protect the public and whether final dispositions of complaints are in the public interest or self-serving to the profession;
- Whether the scope of practice of the regulated occupation contributes to the optimum utilization of personnel and whether entry requirements encourage affirmative action;
- Whether administrative and statutory changes are necessary to improve agency operations to enhance the public interest.

¹ Criteria may be found at § 24-34-104, C.R.S.

Types of Regulation

Consistent, flexible, and fair regulatory oversight assures consumers, professionals and businesses an equitable playing field. All Coloradans share a long-term, common interest in a fair marketplace where consumers are protected. Regulation, if done appropriately, should protect consumers. If consumers are not better protected and competition is hindered, then regulation may not be the answer.

As regulatory programs relate to individual professionals, such programs typically entail the establishment of minimum standards for initial entry and continued participation in a given profession or occupation. This serves to protect the public from incompetent practitioners. Similarly, such programs provide a vehicle for limiting or removing from practice those practitioners deemed to have harmed the public.

From a practitioner perspective, regulation can lead to increased prestige and higher income. Accordingly, regulatory programs are often championed by those who will be the subject of regulation.

On the other hand, by erecting barriers to entry into a given profession or occupation, even when justified, regulation can serve to restrict the supply of practitioners. This not only limits consumer choice, but can also lead to an increase in the cost of services.

There are also several levels of regulation.

Licensure

Licensure is the most restrictive form of regulation, yet it provides the greatest level of public protection. Licensing programs typically involve the completion of a prescribed educational program (usually college level or higher) and the passage of an examination that is designed to measure a minimal level of competency. These types of programs usually entail title protection – only those individuals who are properly licensed may use a particular title(s) – and practice exclusivity – only those individuals who are properly licensed may engage in the particular practice. While these requirements can be viewed as barriers to entry, they also afford the highest level of consumer protection in that they ensure that only those who are deemed competent may practice and the public is alerted to those who may practice by the title(s) used.

Certification

Certification programs offer a level of consumer protection similar to licensing programs, but the barriers to entry are generally lower. The required educational program may be more vocational in nature, but the required examination should still measure a minimal level of competency. Additionally, certification programs typically involve a non-governmental entity that establishes the training requirements and owns and administers the examination. State certification is made conditional upon the individual practitioner obtaining and maintaining the relevant private credential. These types of programs also usually entail title protection and practice exclusivity.

While the aforementioned requirements can still be viewed as barriers to entry, they afford a level of consumer protection that is lower than a licensing program. They ensure that only those who are deemed competent may practice and the public is alerted to those who may practice by the title(s) used.

Registration

Registration programs can serve to protect the public with minimal barriers to entry. A typical registration program involves an individual satisfying certain prescribed requirements – typically non-practice related items, such as insurance or the use of a disclosure form – and the state, in turn, placing that individual on the pertinent registry. These types of programs can entail title protection and practice exclusivity. Since the barriers to entry in registration programs are relatively low, registration programs are generally best suited to those professions and occupations where the risk of public harm is relatively low, but nevertheless present. In short, registration programs serve to notify the state of which individuals are engaging in the relevant practice and to notify the public of those who may practice by the title(s) used.

Title Protection

Finally, title protection programs represent one of the lowest levels of regulation. Only those who satisfy certain prescribed requirements may use the relevant prescribed title(s). Practitioners need not register or otherwise notify the state that they are engaging in the relevant practice, and practice exclusivity does not attach. In other words, anyone may engage in the particular practice, but only those who satisfy the prescribed requirements may use the enumerated title(s). This serves to indirectly ensure a minimal level of competency – depending upon the prescribed preconditions for use of the protected title(s) – and the public is alerted to the qualifications of those who may use the particular title(s).

Licensing, certification and registration programs also typically involve some kind of mechanism for removing individuals from practice when such individuals engage in enumerated proscribed activities. This is generally not the case with title protection programs.

Regulation of Businesses

Regulatory programs involving businesses are typically in place to enhance public safety, as with a salon or pharmacy. These programs also help to ensure financial solvency and reliability of continued service for consumers, such as with a public utility, a bank or an insurance company.

Activities can involve auditing of certain capital, bookkeeping and other recordkeeping requirements, such as filing quarterly financial statements with the regulator. Other programs may require onsite examinations of financial records, safety features or service records.

Although these programs are intended to enhance public protection and reliability of service for consumers, costs of compliance are a factor. These administrative costs, if too burdensome, may be passed on to consumers.

Sunset Process

Regulatory programs scheduled for sunset review receive a comprehensive analysis. The review includes a thorough dialogue with agency officials, representatives of the regulated profession and other stakeholders. Anyone can submit input on any upcoming sunrise or sunset review via DORA's website at: www.askdora.colorado.gov.

The regulatory functions of the Water and Wastewater Facility Operators Certification Board (Board) as enumerated in Article 9 of Title 25, Colorado Revised Statutes (C.R.S.) shall terminate on July 1, 2013, unless continued by the General Assembly. During the year prior to this date, it is the duty of DORA to conduct an analysis and evaluation of the administration of the facility operator licensing program pursuant to section 24-34-104, C.R.S.

The purpose of this review is to determine whether the currently prescribed regulation of water and wastewater facility operators should be continued for the protection of the public and to evaluate the performance of the Board. During this review, the Board must demonstrate that the regulation serves to protect the public health, safety or welfare, and that the regulation is the least restrictive regulation consistent with protecting the public. DORA's findings and recommendations are submitted via this report to the Office of Legislative Legal Services.

Methodology

As part of this review, DORA staff attended Board and contractor meetings, interviewed staff with the Water Quality Control Division within the Department of Public Health and Environment, reviewed Board records and minutes, interviewed officials with state and national professional associations, visited water and wastewater facilities, interviewed water and wastewater facility operators, reviewed Colorado statutes and Board rules, and reviewed the laws of other states.

Profile of the Profession

Generally, water and wastewater facility operators perform four critical functions. They treat water from streams, rivers, and other natural sources to make it suitable for drinking. They assure the water is distributed to customers. They oversee the collection of the wastewater that has flowed into drains and sewers. Finally, they treat the collected wastewater to ensure it is safe to flow back into streams and reservoirs or to be used for irrigation.

Accordingly, facility operators work in the following types of facilities:²

- **Water treatment facilities**, which alter the physical, chemical, or bacteriological quality of the water.
- **Water distribution systems**, which are any combination of pipes, tanks, pumps, or other facilities that deliver water from a source or treatment facility to the consumer.
- **Wastewater collection systems**, which are the pipes and conduits that transport domestic wastewater from the point of entry (e.g., a storm drain) to a domestic wastewater treatment facility.
- **Wastewater treatment facilities**, which are grouped in two categories:
 - **Domestic wastewater treatment facilities** are used to treat domestic wastewater or handle solids and gases removed from such wastewater.
 - **Industrial wastewater treatment facilities** are used for the pretreatment, treatment, or handling of industrial waters, wastewater, and wastes that are discharged into state waters.

The daily duties of water and wastewater treatment plant and system operators can include:³

- Operating equipment to purify water or to process or dispose of sewage;
- Cleaning, maintaining, and inspecting equipment;
- Adding chemicals, such as ammonia, chlorine, or lime, to disinfect water;
- Monitoring and recording operating conditions, meters, and gauges;
- Collecting and testing water and sewage samples; and
- Ensuring safety standards are met.

The specific duties of facility operators vary depending on the type and size of the facility.

² § 25-9-102, C.R.S.

³ U.S. Department of Labor, Bureau of Labor Statistics. *Occupational Outlook Handbook: Water and Wastewater Treatment Plant and System Operators*. Retrieved on August 29, 2012, from <http://www.bls.gov/ooh/production/water-and-wastewater-treatment-plant-and-system-operators.htm#tab-2>

Facilities serving small communities are sometimes designed to handle multiple aspects of the community's water and wastewater needs: for example, a single facility might handle both water treatment and distribution. Operators of such facilities are generalists familiar with all aspects of facility operation.

Large, urban areas tend to have multiple, specialized facilities focusing on specific aspects of water or wastewater treatment, having separate facilities for water treatment, water distribution, wastewater collection, and wastewater treatment. Operators of those facilities specialize in specific areas and are likely to use automated systems to help them monitor processes.

Federal law requires states to certify water facility operators and mandates that water facilities operate under the supervision of a certified operator. Consequently, all states require water facility operators to meet certain education, experience or examination requirements, although the exact requirements vary widely from state to state.

Most states, including Colorado, also require wastewater facility operators to meet certain education, experience or examination requirements. These exact requirements also vary considerably from state to state.

States typically classify water and wastewater facilities based upon their size and complexity and offer levels of operator certification that mirror the facility classifications. For example, an operator who oversees a facility with the highest classification would have to obtain the highest level of certification.

Facility operators typically work for local municipalities. In May 2010, the median annual salary of operators was \$40,770.⁴

⁴ U.S. Department of Labor, Bureau of Labor Statistics. *Occupational Outlook Handbook: Water and Wastewater Treatment Plant and System Operators*. Retrieved on August 29, 2012, from <http://www.bls.gov/ooh/production/water-and-wastewater-treatment-plant-and-system-operators.htm>

Legal Framework

History of Regulation

In 1973, the General Assembly created the nine-member Water and Wastewater Treatment Plant Operators Certification Board when it passed Senate Bill 253. The powers and duties of the newly created board included certifying qualified applicants, promulgating rules, and promoting operator training programs. The bill established four tiers of classification for both water treatment plant operators and wastewater treatment plant operators, with each successive level of classification requiring higher levels of knowledge and work experience. The bill established monetary penalties for individuals who represent themselves as certified operators without being so certified and for facility owners who operate such plants without the supervision of a certified operator of the appropriate level of certification.

The General Assembly did not make any substantive changes to the law until 1996, with the passage of House Bill 1074. This bill made numerous changes, including creating separate definitions for domestic and industrial wastewater treatment facilities and establishing classes of facility operator certifications for each, and establishing criteria for disciplinary action against certified operators.

In 2000, the General Assembly passed House Bill 1431, which renamed the board the Water and Wastewater Facility Operators Certification Board (Board). The bill vested the Water Quality Control Division (Division) within the Department of Public Health and Environment (CDPHE) with the responsibility to investigate possible misconduct by facility operators and make recommendations to the Board regarding appropriate disciplinary action. The bill also added language allowing the Board to contract with a nonprofit entity to administer the operator certification program and authorized the nonprofit to collect certification and renewal fees to operate the program. However, the bill required the nonprofit to direct \$5 per certification to the state's General Fund.

The General Assembly passed House Bill 04-1211 following the 2003 sunset review. The bill made numerous technical changes and mandated that the Board approve all contracts the designated nonprofit enters into with subcontractors.

In 2011, the General Assembly passed Senate Bill 21, which removed the provision restricting Board members to two terms of service.

Federal Law

Passed into law in 1973, the Safe Drinking Water Act (Act) authorized the U.S. Environmental Protection Agency (EPA) to establish minimum quality standards for drinking water.

In 1996, Congress amended the Act. Among the changes was a new provision directing the EPA to establish rules specifying minimum standards for the certification and recertification of the operators of:

- Community water systems, defined as systems that provide drinking water to at least 15 service connections or regularly serve at least 25 individuals.⁵
- Non-transient non-community (NTNC) water systems, defined as public water systems that regularly serve at least 25 of the same people over six months per year. Typical instances of NTNC water systems are those serving schools, restaurants, factories, and hospitals.⁶

The EPA rules promulgated pursuant to the Act require operator certification programs to meet nine baseline standards. Under the standards, states must:⁷

1. Have statutory authority to implement and enforce the program.
2. Classify water treatment facilities and systems based on indicators for potential health risks; develop specific operator certification and renewal requirements for each level of classification; and require owners of all community and NTNC water systems to place the direct supervision of their facilities under the responsible charge of an operator certified at or above the classification of the facility.
3. Require operators to take and pass a validated examination, possess a high school diploma or general equivalency diploma (GED), and have the level of experience appropriate to their level of certification.
4. Have regulations in place that require all applicable water systems to comply with the law and that include adequate enforcement mechanisms, such as ability to fine water systems and revoke individual certifications.
5. Establish requirements for certification renewal, including training requirements.
6. Allot sufficient resources to fund and sustain the program.
7. Establish recertification requirements for operators whose certifications have expired.
8. Include ongoing stakeholder involvement when making changes to operator certification programs.
9. Conduct periodic reviews of the operator certification program to evaluate, among other things, program rules and budget, examination items, and relevance of training.

⁵ 42 U.S.C. § 300f (15).

⁶ 64 Fed. Reg. 5921 (1999).

⁷ 64 Fed. Reg. 5919-5921 (1999).

The Act requires the EPA to reimburse states for the cost of training associated with certification, including an appropriate per diem for unsalaried operators, and for individuals operating facilities serving 3,300 or fewer people.⁸

If a state fails to implement a program that conforms to EPA guidelines, the EPA must withhold 20 percent of the funds a state is otherwise entitled to receive in its Drinking Water State Revolving Fund capitalization grants.

The Act and EPA rules address only operators of water treatment facilities and water distribution systems. The Act does not require that states certify operators of wastewater treatment facilities or collection systems.

Colorado Law

The laws relating to water and wastewater facility operators regulation in Colorado are contained within Article 9 of Title 25, Colorado Revised Statutes (C.R.S.). The Article establishes the classifications for water and wastewater facilities and the minimum qualifications for the operators of such facilities, and mandates that a certified operator must supervise the operation of all water and wastewater facilities.⁹

The Board is a Type 1, policy-autonomous board. The Governor appoints the Board's 10 members. Representation on the Board is as follows:¹⁰

- A certified water treatment or domestic wastewater treatment facility operator with the highest level of certification available in Colorado;
- A certified industrial wastewater treatment facility operator or other representative of a private entity that operates an industrial wastewater treatment facility;
- A city manager, manager of a special district, or utility manager in a city, county, or city and county that operates a domestic water or wastewater treatment facility;
- A representative of the CDPHE, who is an ex officio, nonvoting member;
- A certified water distribution or wastewater collection system operator with the highest level of certification available in Colorado;
- A representative from the Colorado Rural Water Association; and
- Four members from diverse areas of the state—at least one member must live in rural eastern Colorado and one must live west of the Continental Divide—whose appointments reflect the various interests that hold a stake in the facility operators certification program.

⁸ 42 U.S.C. § 300g-8 (d).

⁹ § 25-9-101, C.R.S.

¹⁰ § 25-9-103(1), C.R.S.

At least four of the voting Board members must be certified facility operators with some representing the water industry and others representing the wastewater industry. Every year, the Board elects a chair and secretary.¹¹

Board members serve four-year terms.¹² They receive no compensation for their service, but are reimbursed for the actual expenses they incur.¹³

The duties of the Board include:

- Establishing classes of certified facility operators, taking into consideration the complexity of different types of facilities and the appropriate qualifications for certification for each class;¹⁴
- Establishing rules defining the certification requirements for facility operators;¹⁵
- Adopting rules that set program fees that reflect the actual costs of administering the program;¹⁶
- Ensuring that an office is maintained for contact with operators and employers;¹⁷
- Using subject matter experts to ensure that each certification examination tests for the knowledge necessary to operate the corresponding facility type;¹⁸
- Establishing for each water and wastewater facility a minimum class of certified operators required for its supervision;¹⁹
- Granting exemptions to certain industrial wastewater treatment facilities from the requirement to operate under the supervision of a certified operator, as long as such an exemption is not inconsistent with protecting the public health and the environment;²⁰ and
- Suspending or revoking the certification of any operator who has violated the law.²¹

Classification of Facilities and Operators

The Division classifies water and wastewater facilities based on each facility's size, the size of the population it serves, its complexity, and other factors.

¹¹ § 25-9-104(1)(a), C.R.S.

¹² § 25-9-103(3)(a), C.R.S.

¹³ § 25-9-104(7), C.R.S.

¹⁴ § 25-9-104(3), C.R.S.

¹⁵ § 25-9-104(1)(a), C.R.S.

¹⁶ § 25-9-108(1), C.R.S.

¹⁷ § 25-9-104(1)(a), C.R.S.

¹⁸ § 25-9-104(1)(a), C.R.S.

¹⁹ § 25-9-104(4), C.R.S.

²⁰ § 25-9-104(4), C.R.S.

²¹ § 25-9-104(6), C.R.S.

Every water or wastewater facility must operate under the supervision of a certified operator of the classification level appropriate for that facility.²² Board rule refers to this supervising operator as the operator in responsible charge (ORC), and defines it as:²³

the person designated by the owner of the water or wastewater facility to be the certified operator(s) who has ultimate responsibility for decisions regarding the daily operational activities of the facility that will directly impact the quality and/or quantity of drinking water, treated wastewater, or treated effluent.

The Board is responsible for establishing the appropriate level of operator certification for the ORC of each type of facility.

The Division classifies water and domestic wastewater treatment facilities into four classes: -A," -B," -C," and -D," with -A" being the highest level of classification. The Board issues four corresponding levels of certification for water facility operators and four levels for domestic wastewater.

The Division classifies water distribution and collection systems into four classes: -1," -2," -3," and -4," with -4" being the highest level of classification. The Board issues four corresponding levels of certification for water distribution and collection operators.

The Division classifies industrial wastewater treatment facilities into two classes: Class 1 and Class 2. Class 2 facilities are exempt from the requirement to operate under the supervision of a certified operator. Class 1 facilities are subdivided into four classes: -A," -B," -C," and -D," with -A" being the highest level of classification. The Board issues four corresponding levels of certification for industrial wastewater facility operators.

The Board also issues these specialized certifications:

- **Class S** water and wastewater certifications for operators of small systems serving fewer than 3,300 people.
- **Class T** water certifications for operators of transient, non-community water systems that serve fewer than 100 people per day, draw from groundwater only, and meet other requirements specified in rule. Common examples of transient non-community water systems include campgrounds and gas stations.

²² § 25-9-110(2)(a), C.R.S.

²³ 5 CCR 1003-2, 100.2(18).

Table 1 shows the minimum level of certification an operator must have to serve as the ORC for facilities of each classification.

Table 1
Certification Requirements for Operators in Responsible Charge²⁴

Facility or System Classification		Certification of Operator(s) in Responsible Charge
Water Treatment		
A		A
B		A or B
C		A, B, or C
D		A, B, C, D, S, or T
Water Distribution		
4		4
3		4 or 3
2		4, 3, or 2
1		4, 3, 2, 1, or S
Domestic Wastewater Treatment		
A		A
B		A or B
C		A, B, or C
D		A, B, C, D, or S
Wastewater Collection		
4		4
3		4 or 3
2		4, 3, or 2
1		4, 3, 2, 1, or S
Industrial Wastewater Treatment		
A		A
B		A or B
C		A, B, or C
D		A, B, C, D, or S

Rule 100.18.4(a) requires each water or wastewater facility to report within 30 days of commencing operations:

- The name, mailing address, phone number, email address (if available) and the classification and expiration of certification of all ORCs employed by the owner; and
- Identification of the facility or facilities for which each ORC has responsibility.

Every time the contact information of the existing ORC changes or when a new ORC is hired, the facility must report that information to the Division within 30 days.

²⁴ 5 CCR 1003-2, 100.18.5.

Certification and Renewal

Applicants for all levels of certification must possess a high school diploma or GED, except that relevant experience or training may be substituted. Education and cross-experience²⁵ may be substituted for experience requirements for certification as a water or wastewater facility operator, except that at least 50 percent of any experience requirement must be met by actual on-site operating experience in the appropriate facility type.²⁶

To qualify to sit for any certification examination that is higher than entry-level, an applicant must hold a certification for the same certification category (water treatment, domestic or industrial wastewater treatment, distribution or collection) in the class immediately below the class for which application is being made.

Table 2 shows the experience and prior certification required to take the examinations for the various classes of operator certification.

Table 2
Experience and Certification Required to Take Examinations²⁷

Operator Class	Prior Certification Required	Minimum Experience Required
Class T	None	No minimum experience requirement
Class S	None	1 month
Class D or Class 1	None	1 month
Class C	Class D or Class S	2 years
Class 2	Class 1 or Class S	2 years
Class B	Class C	3 years
Class 3	Class 2	3 years
Class A	Class B	4 years
Class 4	Class 3	4 years

Applicants seeking certification in Class S, Class D, or Class 1 may sit for the examination before accruing the required experience. After passing the examination, the applicant may then accrue the required experience through on-the-job training, through an apprenticeship under the supervision of a certified operator, or by completing a Board-approved training program. Once applicants can demonstrate they have completed the required experience, the Board will issue the certificate.

²⁵ Pursuant to § 25-9-106.5, C.R.S., experience as a wastewater treatment facility operator may be substituted for experience as a water treatment facility operator and vice versa. This is what "cross-experience" means.

²⁶ § 25-9-106.5, C.R.S.

²⁷ 5 CCR 1003-2, 100.9.8.

If an applicant applies for certification in a field where he or she does not have experience, the Board evaluates the applicant's knowledge of water and wastewater facility operation—demonstrated through examination and verified work experience—to determine the appropriate type and level of certification to be issued.²⁸

Once issued, certifications are good for three years.²⁹ To renew a certificate, operators must pay a fee and complete the required training units.³⁰ By rule, one training unit equals 10 contact hours,³¹ meaning 10 hours of classroom attendance or supervised participation.³²

Table 3 shows the training units required to renew the various classes of operator certification.

Table 3
Training Units Required for Renewal³³

Certification Class	Training Units Required
Class T	1.2 (12 contact hours)
Class D and Class 1	1.2 (12 contact hours)
Class S	1.8 (18 contact hours)
Class C and Class 2	1.8 (18 contact hours)
Class B and Class 3	2.4 (24 contact hours)
Class A and Class 4	3.0 (30 contact hours)

Operators who fail to renew their certifications before the expiration date have two years after the expiration date to pay the required fee and complete the applicable ongoing training units. If an operator does not renew the certification within those two years, the certification is automatically revoked and the operator must reapply for certification as though he or she were a new applicant.³⁴

A person who holds a facility operator's certification issued in another state may apply to the Board for a Colorado certification of comparable classification. If the requirements for operator certification are equal to or greater than Colorado's, the Board may certify the applicant. Where there is a question as to the level of certification that should be granted, the Board may authorize special examinations or other procedures to confirm the appropriate certification level.³⁵

²⁸ § 25-9-107(2), C.R.S.

²⁹ § 25-9-107(3), C.R.S.

³⁰ § 25-9-107(4)(a), C.R.S.

³¹ 5 C.C.R.1003-2, 100.14.3.

³² 5 C.C.R.1003-2, 100.12.2(d)(i).

³³ 5 C.C.R.1003-2, 100.14.2.

³⁴ § 25-9-107(4)(b), C.R.S.

³⁵ § 25-9-107(5), C.R.S.

It is unlawful for any person to represent himself or herself as a certified operator of any category and of any class without first being so certified and without holding a current valid certificate issued by the Board.³⁶

Program Administration

The Board may select and appoint one or more independent nonprofit corporations to administer the operator certification program.³⁷ In order to qualify for consideration to administer the program, the corporation must have expertise in training and testing procedures and demonstrated knowledge of water and wastewater treatment, collection, and distribution systems.³⁸

The duties associated with administering the program include, but are not limited to:³⁹

- Maintaining records of certified operators;
- Notifying operators of expiration of certification;
- Providing information on accredited training requirements;
- Preparing and furnishing the examination material;
- Collecting fees;
- Setting the times, dates, and places for holding examinations, one of which must be given at least annually;
- Grading examinations;
- Evaluating the work experience of applicants;
- Evaluating continuing training achievements for renewal of certification; and
- Evaluating requests for reciprocity.

If the Board appoints a nonprofit corporation to perform these activities, it must enter into a contract to ensure that such corporation:⁴⁰

- Receives applications and fees;
- Conducts examinations;
- Records and notifies applicants of examination results, and provides feedback to examinees upon request;
- Recommends issuance of certificates; and
- Prepares and distributes an annual report.

With the Board's permission, a nonprofit corporation selected to administer the program may enter into subsidiary agreements with other nonprofit corporations, educational institutions, and for-profit corporations to carry out the duties assigned by the Board. Any such subsidiary agreements are subject to prior approval by the Board.⁴¹

³⁶ § 25-9-110(1), C.R.S.

³⁷ § 25-9-104(1)(a), C.R.S.

³⁸ § 25-9-104(1)(b), C.R.S.

³⁹ § 25-9-104(1)(a), C.R.S.

⁴⁰ § 25-9-104(1)(a), C.R.S.

⁴¹ § 25-9-104(1)(a), C.R.S.

The nonprofit corporation under contract to the Board may collect certification and renewal fees to pay for its actual costs to administer the program, but it must remit a \$5 fee for each new and renewal certificate to the Colorado State Treasury. If the Board directly receives any certification and renewal fees, it must deposit all those funds with the Colorado State Treasury.⁴²

The Board is responsible and retains the final authority for all actions and decisions carried out on its behalf by any nonprofit corporation, educational institution, or for-profit corporation. Such authority includes, but is not limited to, the authority to modify, suspend, or reverse any action or decision of any nonprofit corporation, educational institution, or for-profit corporation.⁴³

Complaints and Enforcement

Section 25-9-104(6), C.R.S., directs the Board to establish criteria for the discipline or reprimand of any water or wastewater facility operator and for the suspension or revocation of the certification of any such operator. Accordingly, the Board established the following grounds for taking disciplinary action against certified operators:⁴⁴

- Failing to exercise reasonable care and judgment consistent with the operator's level of certification and degree of responsibility for the operation of a water or wastewater facility;
- Failing to properly perform and/or supervise activities pertinent to controlling the operation of a water or wastewater facility;
- Willfully or negligently violating, causing, or allowing the violation of the Operator Certification Regulations, the Colorado Primary Drinking Water Regulations, the Colorado Discharge Permit System Regulations, or certain, enumerated discharge permits;
- Submitting false or misleading information on any document provided to the CDPHE, Division, Board, or designee of the Board;
- Using fraud or deception in the course of employment as an operator;
- Failing to conform with minimum standards of performance of an operator's duty;
- Engaging in dishonest conduct during an examination;
- Obtaining a certificate through fraud, deceit, or the submission of materially inaccurate application information; and
- Representing oneself as holding a valid operator's certificate after the expiration, suspension, or revocation of the certificate.

⁴² § 25-9-108(1), C.R.S.

⁴³ § 25-9-104(1)(a), C.R.S.

⁴⁴ 5 CCR 1003-2, 100.20.1.

The Board established additional grounds for discipline against ORCs. The Board may take disciplinary action against an ORC who fails to fulfill the responsibilities of an ORC as defined by rule, or who willfully or negligently causes or allows any other person under his or her supervision to act in a manner inconsistent with an operator's duties and obligations.⁴⁵

The Division has the primary responsibility for investigating instances of possible misconduct by water and wastewater facility operators. The Division must report the results of any investigation to the Board and make recommendations regarding appropriate disciplinary action,⁴⁶ which can include:

- A **reprimand**, an official admonition the Board issues to an operator in the form of a letter, which includes the facts and circumstances leading to the reprimand, the statutory and regulatory provisions at issue, and a warning of more serious consequences for future violations;⁴⁷
- **Suspension** of the operator's certificate, for up to three years;⁴⁸ and
- **Revocation** of the operator's certification.⁴⁹

By rule, the Board authorizes the Division to immediately suspend or revoke an operator's certification if necessary to protect the public health or the environment.⁵⁰

Operators may request a hearing before the Board within 30 days of receiving the notice of disciplinary action.⁵¹

It is unlawful for an owner of a water or wastewater facility to allow the facility to be operated without the supervision of an ORC holding the classification level appropriate for that facility.⁵² When the Division has reason to believe such a violation has occurred, it must serve written notice to the alleged violator. The notice must state the allegations and may include the specific action required to come into compliance.⁵³

Upon being served, the alleged violator has 30 days to request a public hearing on the matter. The Board's decision following a hearing is considered final.⁵⁴

Owners who are found to have violated the ORC requirement are subject to a civil penalty of up to \$300 per day for each day of the violation. All civil penalties are credited to the state's General Fund.⁵⁵

⁴⁵ 5 CCR 1003-2, 100.20.2.

⁴⁶ § 25-9-104(6.5), C.R.S.

⁴⁷ 5 CCR 1003-2, 100.20.4.

⁴⁸ 5 CCR 1003-2, 100.20.5(a).

⁴⁹ 5 CCR 1003-2, 100.206.

⁵⁰ 5 CCR 1003-2, 100.20.7.

⁵¹ 5 CCR 1003-2, 100.21.2.

⁵² § 25-9-110(2)(a), C.R.S.

⁵³ § 25-9-110(3), C.R.S.

⁵⁴ § 25-9-110(4), C.R.S.

⁵⁵ § 25-9-110(5), C.R.S.

Program Description and Administration

The Colorado Water and Wastewater Facility Operators Certification Board (Board) is vested with the authority to regulate water and wastewater facility operators in Colorado. The 10-member Board meets at least six times a year. The Board's duties include establishing minimum standards of competence for certified operators, certifying facility operators meeting those standards, taking disciplinary action against individual operators, and promulgating rules to administer the program.

The Water Quality Control Division (Division) within the Colorado Department of Public Health and Environment (CDPHE) is responsible for enforcing the requirement that every water and wastewater facility operate under the direct supervision of a certified operator of the appropriate level of certification, or operator in responsible charge (ORC). The Division also investigates complaints against certified operators. The Division's other duties include doing outreach, providing educational opportunities for the regulated community, and helping facilities achieve and maintain compliance with the law.

Table 4 illustrates, for the five fiscal years indicated, CDPHE's expenditures and staff associated with facility operator certification.

Table 4
CDPHE Fiscal Information

Fiscal Year	Total CDPHE Expenditure	Full Time Equivalent Employees
06-07	Data not available	1.6
07-08	\$149,884	2.1
08-09	\$170,425	2.1
09-10	\$169,832	2.1
10-11	\$132,052*	2.0

*Includes \$13,008 for the salaries of Board administration staff. That figure was not available for fiscal years 06-07 to 09-10.

The CDPHE's expenditures in support of the program include salaries, travel, and supplies. These expenditures are paid with a combination of General Fund dollars, federal grants, and facility fees.

The expenditures decreased from fiscal year 09-10 to 10-11 because a full-time Environmental Protection Specialist III position was vacant from November 2010 to June 2011.

The Board contracts with two nonprofit companies to administer the operator certification program. Colorado Environmental Certification and Testing, Incorporated (CECTI) handles water and wastewater treatment certification and the Certification Council handles water distribution and wastewater collection certification. Both CECTI and the Certification Council are comprised of volunteer certified facility operators who provide subject matter expertise in water and wastewater facility operation.

CECTI and the Certification Council have subcontracts in place with two entities. The Associated Boards of Certification (ABC) develops validated examinations for the various classifications of certified operators. Total Events and Management Services, Inc. (TEAMS) runs the Operator Certification Program Office (OCPO) and oversees the daily operation of the program, including processing applications for certification, depositing fees, administering examinations, renewing operator certifications, and maintaining records of operator certifications and approved training courses.

Table 5 illustrates, for the five fiscal years indicated, CECTI and the Certification Council's expenditures associated with facility operator certification.

Table 5
Contractor Fiscal Information

Calendar Year	CECTI	Certification Council	Total Expenditures
2007	\$234,353	\$149,460	\$383,814
2008	\$207,158	\$170,331	\$377,489
2009	\$230,872	\$199,213	\$430,085
2010	\$261,311	\$249,458	\$510,769
2011	\$269,695	\$234,225	\$503,920

The table above reflects the dollars paid to ABC and TEAMS, to develop the examinations and administer the program, respectively. Fees paid by certified operators cover these costs.

Not reflected in the table above is the considerable number of volunteer hours logged by the volunteer subject-matter experts comprising CECTI and the Certification Council. OCPO estimates that in 2011, CECTI and the Certification Council volunteered an approximate total of 3,125 hours. If these volunteers had been paid, that would have added nearly \$362,500 to the annual cost of the program.⁵⁶

Table 6 shows the current fees associated with the program.

Table 6
Operator Certification Fees⁵⁷

Examination fee	\$45
Online examination fee	\$80*
New certification by examination	\$70**
New certification by reciprocity	\$85**
Certification renewal	\$85**
Late fee (for late renewals)	\$50
Training Unit approval (per course)	\$50

*\$45 examination fee plus a \$35 surcharge.

**Amount reflects total fee including a \$15 application fee.

⁵⁶ OCPO based this calculation on the assumption that volunteers would be paid 50 percent of a private sector consultant's hourly fee, i.e., \$116 per hour.

⁵⁷ 5 CCR 1003-2, 100.19.

The fees are set in rule. Under section 25-9-108, Colorado Revised Statutes, the Certification Council and CECTI may collect the fees and use them to pay for the costs of the program, but they must pay \$5 from every certification or renewal fee into the General Fund. In 2011, the Certification Council paid \$7,560 to the state's General Fund and CECTI paid \$8,495, for a total of \$16,055.

Examinations

CECTI and the Certification Council contract with ABC to develop and validate the certification examinations.

Table 7 shows each examination ABC provides and the total number of questions on each test.

Table 7
Operator Certification Examinations

Operator Category	Classification Level	Number of Questions
Water Treatment	Class A	200
	Class B	150
	Class C	120
	Class D	100
Wastewater Treatment	Class A	200
	Class B	150
	Class C	100
	Class D	100
Industrial Wastewater	Class A	150
	Class B	120
	Class C	100
	Class D	50
Water Distribution	Class 1	100
	Class 2	120
	Class 3	150
	Class 4	200
Wastewater Collection	Class 1	100
	Class 2	120
	Class 3	150
	Class 4	200
Small Water System	100	
Small Wastewater System	100	
Transient Non-Community	50	

The number of questions increases with each classification level.

The subject matter covered in the examinations and the percentage of questions devoted to each subject area varies considerably according to the operator category (e.g., water treatment) and the classification level, but generally, the examinations cover:

- Monitoring, evaluating, and adjusting treatment processes or distribution/collection systems;
- Maintaining, installing, and operating equipment;
- Collecting samples and performing laboratory analyses;
- Complying with laws and rules; and
- Performing safety, security, and administrative duties.

The small systems examinations include questions on a broad range of topics, while the other examinations focus more in-depth on relatively narrow areas.

OCPO is responsible for administering the validated examinations. Applicants must submit their applications on or before three specified deadline dates in order to sit for the examination during the subsequent three-month period:

- March 1, to test in April, May, June, and July
- July 1, to test in August, September, October, and November
- November 1, to test in December, January, February, and March

The examinations are offered in paper-and-pencil format and web-based format. Candidates have three to seven hours to take each examination, depending on the classification level of the examination.

OCPO offers web-based testing at its offices in Aurora at least three days per week year-round.

Candidates who cannot travel to OCPO's offices or those who wish to take the paper-and-pencil examination may sit for the examinations at various locations throughout the state, including Colorado Springs, Durango, Ft. Morgan, Grand Junction, Lakewood, Leadville, Longmont, Montrose, and Pueblo. However, not all examinations are offered at all locations and not all locations are available for each testing cycle. The water and wastewater treatment examinations are offered nine times per year, while water distribution and wastewater collection are offered four times per year. Industrial wastewater and small systems examinations are offered three times per year.

Candidates taking the web-based examination receive their results immediately. Candidates taking the paper-and-pencil examination can view their results on the OCPO website within four weeks of the test date, and OCPO mails the results within five weeks of the test date.

OCPO staff administratively approves all applications for entry-level examinations (Class D, Class 1, Class S, or Class T) which either have no minimum work experience requirement or allow candidates to meet such requirement after passing the test.

For all other examination applications, OCPO staff checks the database of certified operators to verify that the applicant meets the prior certification requirements.

If the applicant does not meet the prior certification requirement, OCPO notifies the applicant that he or she is ineligible to take the examination.

If the applicant holds the proper prior certification, OCPO forwards the application to the review committee of the appropriate organization—CECTI for water or wastewater treatment or the Certification Council for distribution or collection—to determine whether the applicant's work experience qualifies him or her to sit for the examination. Once the appropriate committee approves the application, OCPO schedules the applicant for the examination. Applicants whose applications are denied may ask the committee to review their applications again. If they are denied a second time, the applicants may appeal the committee's decision before the Board.

Table 8 shows the pass rates for all facility operator certification examinations for the five calendar years indicated.

Table 8
Aggregate Pass Rates for Operator Certification Examinations

Calendar Year	Total Examinations Given	Overall Pass Rate (%)
2007	2,626	54
2008	2,564	53
2009	2,548	57
2010	2,528	53
2011	2,415	55

The pass rates for all examinations have remained consistently low over the past five years. In fact, looking back to the 2003 sunset review, the aggregate pass rates were similarly low at that time.

This could be partially explained by the fact that until recently, the Board permitted —multiple-entry” examinations, meaning that as long as applicants had the required work experience, they could seek any level of certification without first having to secure lower levels of certification. For example, a person could take the Class B water treatment examination without first getting a Class C certification. This multiple-entry regime may account for the low pass rates.

In November of 2011, the Board promulgated rules abolishing multiple-entry and implemented “sequential testing” by establishing prior certification requirements for all operator classifications higher than entry-level.

The 2011 disaggregated pass rates for the various certification examinations reveal that the pass rates are the highest for entry-level certification examinations and generally decline with each successive level of classification. In theory, sequential testing will assure that a candidate possesses the knowledge required for each specific level before advancing to the next. This might result in improved pass rates.

Certification

Once applicants pass their respective examinations, they are eligible for certification. Applicants must submit an application for certification and a \$55 fee to OCPO. OCPO staff then issue the certificate. For those operator classes that can complete their work experience after passing the examination, OCPO verifies that the applicant has met the experience requirement before issuing the certificate.

Table 9 illustrates the number of certifications for levels of classification in each category issued for the five calendar years indicated.

Table 9
New Operator Certifications

	2007	2008	2009	2010	2011	Total
Water Treatment	353	391	337	304	308	1,693
Water Distribution	331	441	348	372	334	1,826
Wastewater Treatment	266	277	340	347	271	1,501
Wastewater Collection	298	308	290	302	260	1,458
Small Water System	65	117	52	126	96	456
Total	1,313	1,534	1,367	1,451	1,269	6,934

The number of new certifications issued has remained relatively stable over the past five years.

Table 10 shows, for calendar year 2011, the total number of active certifications for each operator class.

Table 10
Total Number of Certifications

Operator Category	Classification Level	Total Number
Water Treatment	Class A	767
	Class B	250
	Class C	596
	Class D	765
Wastewater Treatment	Class A	592
	Class B	148
	Class C	394
	Class D	689
Industrial Wastewater	Class A	118
	Class B	31
	Class C	177
	Class D	143
Water Distribution	Class 1	1,056
	Class 2	611
	Class 3	154
	Class 4	889
Wastewater Collection	Class 1	695
	Class 2	392
	Class 3	152
	Class 4	703
Small Water System		191
Small Wastewater System		562
Transient Non-Community		69
Total Active Certifications		10,144

With the exception of the Industrial Wastewater category, there appear to be the greatest number of people in the entry-levels (Class D for water and wastewater treatment, Class 1 for collection and distribution) and in the highest levels (Class A for water and wastewater treatment and Class 4 for collection and distribution).

Many individuals hold more than one type of certification: for example, a person might be certified as both a Class A water treatment facility operator and a Class 4 water distribution facility operator. Consequently, the actual number of certified operators is closer to 6,000.

Training Unit Approval

To qualify for renewal, certified operators must complete a specific number of training units. In order for trainees to receive credit for the class, the class must be approved by CECTI or the Certification Council.

To submit a course for approval, trainers pay a \$50 fee and submit the course outline, syllabus, and any other relevant materials to OCPO via an online application. Committee members evaluate the course materials to determine whether the course meets the criteria established in rule and if so, how many training units should be credited and in which operator category (i.e., water distribution).

Committee members review and approve courses via the online application. As soon as courses are approved, they appear on the list of available training courses for certified operators on the OCPO website.

Complaints/Disciplinary Actions

The Division bears the primary responsibility for ensuring that water and wastewater facilities are operating under the direct supervision of an ORC, that is, a certified operator holding a certification equal to or higher than the classification of the facility. Non-compliant facilities are typically reported by departing facility employees or facility owners themselves. CDPHE might also discover a facility is non-compliant while conducting an inspection.

Table 11 illustrates water and wastewater facilities' rate of compliance with this requirement for the five calendar years indicated.

Table 11
Facility Compliance with the Operator in Responsible Charge Requirement

Calendar Year	Number of Facilities	Compliant	Non-Compliant	Compliance Rate (%)
Community Water Systems				
2007	901	853	48	95
2008	902	880	22	97
2009	926	914	12	98
2010	927	916	11	98
2011	933	916	17	98
Non-Transient Non-Community Water Systems				
2007	178	173	5	97
2008	171	168	3	98
2009	179	178	1	99
2010	184	182	2	98
2011	182	180	2	98
Transient Non-Community Water Systems				
2007	901	853	48	95
2008	902	880	22	97
2009	923	916	12	98
2010	927	916	11	98
2011	933	916	17	98
Domestic Wastewater				
2011	598	581	17	97
Industrial Wastewater				
2011	129	127	2	98
Wastewater Collection Districts				
2011	124	119	5	96

The compliance rate has continued to improve from year to year. From 2006 to 2010, the Division took no formal action against facilities for failing to comply with the ORC requirement. In 2011, the Division took four formal actions, all of which were Notices of Violation without Penalty.

The Division is responsible for investigating allegations of misconduct against certified operators and recommending disciplinary action to the Board. Anyone—including facility customers, employees, supervisors and subordinates, as well as Division staff—may file a complaint against a certified operator. The Division accepts anonymous complaints.

Recent complaints against certified operators included allegations of:

- Failing to properly maintain storage tanks in the distribution system, resulting in a waterborne disease outbreak.
- Failing to maintain sample collection protocol.
- Failing to monitor and report contaminants.
- Falsifying experience/education requirements.
- Falsifying records, specifically, laboratory data.
- Refusing to comply with requests from the Division.

Table 12 illustrates the number of complaints received against individual certified operators and the Board action taken for the five fiscal years indicated.

Table 12
Complaints against Certified Operators and Board Action Taken

Action	FY 06-07	FY 07-08	FY 08-09	FY 09-10	FY 10-11
Letter of Reprimand	0	1	0	3	0
Suspension	0	0	0	0	0
Revocation	0	0	0	0	0
Consent Agreement	0	1	0	1*	0
Dismissed for Lack of Evidence	2	0	2	4	1
TOTAL Complaints	2	2	2	8	1

*The certificate was invalidated and the person was required to retake the examination.

Given that there are over 10,000 active certifications in the state, the number of complaints and disciplinary actions has remained very low. The apparent spike in the number of final actions in fiscal year 09-10 occurred because the Division was investigating and clearing a backlog of cases that had accumulated over the previous several years.

Analysis and Recommendations

Recommendation 1 – Continue the Water and Wastewater Facility Operators Certification Board for seven years, until 2020.

Article 9 of Title 25, Colorado Revised Statutes (C.R.S.), vests the Water and Wastewater Facility Operators Certification Board (Board) with regulating water and wastewater facility operators in Colorado. The duties of the Board include determining the minimum qualifications for operators of water and wastewater facilities, certifying operators who meet such qualifications, promulgating rules, and taking disciplinary action against operators who violate the law.

The Board is a Type 1, policy-autonomous board housed within the Water Quality Control Division (Division) of the Colorado Department of Public Health and Environment (CDPHE), which provides the Board with staffing and resources.

The first question of a sunset review is whether this regulation serves to protect the public health, safety and welfare.

Among regulated professionals, water and wastewater facility operators have tremendous reach. Although consumers typically do not interact directly with facility operators, consumers interface with water and wastewater systems many times a day, every day. Water distribution facility operators work to ensure that when people turn on the tap, water will come out. Water treatment facility operators make sure that water safe to drink. Collection facility operators make sure that the dirty water that flows down the drain is conveyed safely to a wastewater treatment facility, where wastewater treatment facility operators assure that the wastewater is properly treated before being returned to public water sources.

Improper water treatment could sicken literally thousands of people. Improper collection and treatment of wastewater could result in dangerous runoff to streams and rivers. Such incidents are extremely rare, but the potential for harm is considerable. By assuring certified operators meet certain minimum requirements, taking disciplinary action against operators who violate the law, assuring facilities operate under the supervision of an operator in responsible charge (ORC), and promulgating rules governing the operation of water and wastewater facilities, the Board protects the health and welfare of Colorado citizens.

Therefore, regulation is justified and should be continued.

The third and fourth sunset criteria require a sunset review to consider:

- Whether the agency operates in the public interest and whether its operation is impeded or enhanced by existing statutes, rules, procedures and practices and any other circumstances, including budgetary, resource and personnel matters; and
- Whether an analysis of agency operations indicates that the agency performs its statutory duties efficiently and effectively.

The structure of Colorado's operator certification program is unique. Section 25-9-104(1)(a), C.R.S., permits the Board to appoint one or more nonprofit corporations to administer the program and examinations. The Board has chosen to do so.

Colorado Environmental Certification and Testing, Incorporated (CECTI) handles the water and wastewater treatment portion of the program and the Certification Council handles the wastewater distribution and collection portion. These two contractors then subcontract with the Associated Boards of Certification (ABC) to develop validated examinations for the various classifications of certified operators and with Total Events and Management Services, Inc. (TEAMS) to run the Operator Certification Program Office (OCPO) and oversee the daily operation of the program.

While this structure makes for a complicated organizational chart, the responsibilities of the six entities involved in facility operator certification are reasonably well defined:

- **The Board** establishes minimum standards for certified operators, promulgates rules, and bears ultimate responsibility for the operations of the program.
- **The Division** serves as staff to the Board, investigates complaints against individual operators, and assures facilities operate under the direct supervision of a certified operator of the appropriate class.
- **CECTI** and the **Certification Council** provide subject matter expertise in evaluating certification applications and approving training courses.⁵⁸
- **ABC** develops the certification examinations.
- **TEAMS** operates OCPO, which administers the daily operations of the program.

In general, the program operates efficiently with little duplication of effort. That said, the complex program structure underscores how vitally important it is for the Board to maintain vigorous oversight of its contractors and subcontractors. The Board bears the ultimate responsibility for protecting the public health and welfare.

⁵⁸ As of this writing, CECTI and the Certification Council were in the process of merging into a single entity, which might facilitate more efficient operations.

One issue that has dogged the program ever since it was implemented in 2000 is consistently low examination scores. On average, the scores for all examinations hover around 50 percent.

As explained in the “Program Description and Administration” section, the low pass rates could be partially explained by the fact that until recently, the Board permitted “multiple-entry” examinations, meaning that as long as applicants had the required work experience, they could seek any level of certification without first having to secure lower levels of certification. In November of 2011, the Board implemented “sequential testing,” which requires applicants for operator classifications higher than entry-level to meet prior certification requirements. It is a reasonable expectation that under this regime the pass rates should improve.

Clean drinking water and the safe disposal of wastewater are essential to the public health and welfare. Also, Colorado’s operator certification program fulfills the mandate of the U.S. Environmental Protection Agency that states require water treatment and water distribution facility operators to meet minimum standards. For these reasons, the Board should be continued.

To monitor progress on the issue of persistently low examination pass rates, continuing the regulation of water and wastewater facility operators for seven years, until 2020, is justified.

Recommendation 2 – Change the seat on the Board for the Colorado Rural Water Association to a more general small-systems seat.

The 2003 sunset review recommended reducing the size of the Board from 13 to 9 members, arguing that a smaller Board might be more efficient while still assuring diverse representation on the Board. The 2003 report identified several potential redundancies in the Board composition at that time.

Among the redundancies was the fact there was one seat (created in 1996) for a small systems facility operator and another seat (created in 2000) for a representative of the Colorado Rural Water Association (CRWA), a professional association representing small systems. The 2003 sunset report recommended that the General Assembly use its discretion in determining which seat should be eliminated. The General Assembly ultimately determined to keep the CRWA seat.

There is no doubt that CRWA represents the interests of small systems in Colorado. However, there are other organizations operating within Colorado that also represent the interests of small systems, including the Rocky Mountain Section of the American Water Works Association and the Rural Community Assistance Association. Reserving a seat on the Board specifically for CRWA seems inequitable in light of these other worthy organizations that also serve small systems.

When considering board composition, it is good policy to name the constituency a board seat is intended to represent rather than designating that seat for a specific organization. There is precedent on the Board for repealing seats designated for specific entities: the seat for a representative of the Colorado Municipal League (CML), which had been in place since at least 1973, was repealed in 2004. The current composition calls for a city manager, manager of a special district, or utility manager in a city or county that operates a domestic water or wastewater treatment facility. In other words, the current seat calls for a Board member representing a municipality. The Governor could still appoint a CML representative to this seat, but may also consider other candidates who represent municipalities.

In that spirit, the General Assembly should repeal the seat designated for CRWA and instead create a seat for an individual representing the interests of small systems, that is, systems serving 3,300 or fewer individuals. Such a person could be a certified operator who runs a small system or a person from an organization representing small systems. Making this change would give other organizations and individuals an opportunity to serve on the Board and would give the Governor a wider range of potential Board members to consider for appointment.

Recommendation 3 – Allow the Board to exempt certain domestic wastewater facilities from the requirement that they operate under the supervision of a certified operator.

Section 25-9-104(4), C.R.S., allows the Board to exempt certain industrial wastewater treatment facilities or classes of facilities from the ORC requirement as long as making such exemptions is consistent with the Board's duty to protect the public health and environment.

In determining whether to grant such an exemption, the Board may consider criteria including, but not limited to:

- Discharges of limited duration;
- The sensitivity of the receiving waters;
- The level of toxic pollutants in the discharge; and
- Situations where chemical, mechanical, or biological treatment techniques are not required to meet permit limits.

If the Board is assured that allowing the facility to operate without ORC supervision would not endanger the public health, it may exempt that facility from the ORC requirement. The exemption represents a cost savings to the facility and aligns with the second sunset criterion that regulation be the least restrictive consistent with the public interest.

There are instances where domestic wastewater treatment facilities could be operated safely without ORC supervision, for example, a campground where wastewater flows directly into a septic tank. Under the current law, however, the Board may only grant exemptions to industrial facilities, so that campground would be required to hire a certified operator to oversee the septic tank even though the public health and environment is not at risk.

Generally, the Board has not been enforcing the ORC requirement in instances such as the one above, and through lack of enforcement, such facilities have been effectively exempted. This is no substitute, however, for a clear, defined exemption authority.

It is important to note that even if the Board were to exempt a domestic wastewater facility from the ORC requirement, that facility would remain under the regulatory authority of CDPHE. Facility owners would still have to obtain applicable wastewater discharge permits, meet reporting requirements, and ensure the facilities are operated in compliance with all applicable state and federal laws.

Granting the Board the authority to establish subsets of domestic wastewater facilities that are not required to operate under the supervision of an ORC would relieve the regulatory burden on small businesses and allow the Division to focus its enforcement efforts on facilities that truly do require the supervision of an ORC to operate safely. Doing so would not limit or otherwise affect CDPHE's ability to intervene and take action if a domestic wastewater facility were to pose a threat to the public health and environment.

Therefore the General Assembly should expand the Board's authority to grant exemptions from the ORC requirement to include domestic as well as industrial wastewater treatment facilities.

Recommendation 4 – Create separate statutory sections delineating the responsibilities of the Board, the Division, and any nonprofit corporations under contract with the Board.

The General Assembly created the underlying statute for the Board in 1973. Since then, the statutory provisions have been revised many times. As a result, the provisions are poorly organized and contain language that is duplicative and confusing. Specifically, section 25-9-104, C.R.S., titled —Dties of Board—Rules”, includes, among other things:

- Administrative information (e.g., information on Board elections and the duties of the Board).
- Duties of the Board, such as classifying facility operators, promulgating rules, and disciplining operators.

-
- Powers of the Board, such as appointing a nonprofit corporation to administer the operator certification program and promoting operator training programs.
 - Minimum qualifications nonprofits must possess to be considered for Board appointment.
 - Duties of the Division, such as investigating instances of possible misconduct by facility operators.
 - Elements that must be included in a contract between the Board and any nonprofit appointed to administer the program.

As discussed in Recommendation 1 of this sunset report, the current structure of the facility operator certification program is generally effective, but complex. The statute should clearly reflect the duties, powers, and responsibilities of each party involved with operator certification. Over the past almost 40 years, multiple revisions have rendered this section confusing and at times duplicative. For this reason, section 25-9-104, C.R.S., should be split into four separate sections as described below.

Section 1: Duties and Powers of the Board.

This section should include all tasks the Board ~~—shall~~ and ~~—may~~ do. This section should include the provisions permitting the Board to appoint a nonprofit corporation to administer the programs and the provision compelling the Board to enter into a contract with such nonprofits. The specific tasks associated with program administration and all other provisions relating to contracts or subcontracts should be moved to the new ~~—Contracts~~ section below.

Section 2: Contracts.

This new section should provide implementation details regarding the Board's power to select and appoint nonprofit corporations to administer the program. This section should contain four basic components:

- Provisions establishing that the contractor would be responsible for all tasks associated with administration of the program, as defined by rule.

The way the current statute is written, there is one list of duties associated with program administration and a second list of duties which must be specifically addressed in the Board contract. A side-by-side comparison of these tasks reveals numerous duplications and several areas of inexplicable divergence.

In addition, the Board has promulgated rules delineating the administrative functions of the program.⁵⁹

⁵⁹ 5 CCR 1003-2, 100.3.

It is appropriate that this kind of detailed information be included in rule rather than statute because the Board has more flexibility to revise rules as needed.

Therefore, the provision should state that a contractor would be responsible for all program administration functions as defined by rule, and that the contract must specifically address all such functions.

- The provision currently located at section 25-9-104(1)(b), C.R.S., describing the expertise a contracted nonprofit must possess to be considered for Board appointment.
- The provision currently located in section 25-9-104(1)(a), C.R.S., allowing the nonprofit corporation to enter into subsidiary agreements subject to prior approval by the Board.
- The provision currently located in section 25-9-104(1)(a), C.R.S., stating that the Board is responsible for and has final authority for all actions and decisions carried out on its behalf by any such nonprofit corporation.

Section 3: Division - Primary investigatory authority. This section should include the wording of section 25-9-104(6.5), C.R.S., vesting the Division with the primary responsibility for investigating complaints.

Section 4: Exemptions. The section should include the provision currently located in section 25-9-104(4), C.R.S., establishing the Board's ability to grant exemptions from the ORC requirement for industrial wastewater treatment facilities and domestic wastewater treatment facilities as described in Recommendation 4 of this sunset report.

Making these changes would not substantively change any aspect of the existing program. Rather, the changes would clarify the duties and responsibilities for all interested parties, remove duplicative language, and provide a clearer framework for future amendments to the law. For these reasons, the General Assembly should reorganize section 25-9-104, C.R.S., as described above.

Attachment 4

Article 9 Title 25 Colorado Revised Statutes

Effective July 1, 2013

Water and Wastewater Facility Operators Certification Statute



Revised and reproduced by:

The Colorado Department of Public Health and Environment

July 2013

(PLEASE NOTE: This is an unofficial copy of this statute. The official copy is published as the Colorado Revised Statutes under the supervision and direction of the Committee on Legal Services.)

TABLE OF CONTENTS

	Page
25-9-101 <u>Legislative declaration</u>	1
25-9-102 <u>Definitions</u>	1
25-9-103 <u>Water and wastewater facility operators certification board - composition - repeal of article</u>	2
25-9-104 <u>Duties of the board</u>	3
25-9-105 <u>Water treatment facility operator</u>	6
25-9-106 <u>Domestic wastewater treatment facility operator</u>	7
25-9-106.2 <u>Industrial wastewater treatment facility operator</u>	7
25-9-106.3 <u>Multiple facility operator</u>	7
25-9-106.5 <u>Education and experience - substitution allowed</u>	8
25-9-107 <u>Certification procedure</u>	8
25-9-108 <u>Fees</u>	9
25-9-109 <u>Use of title</u>	10
25-9-110 <u>Violations - penalty</u>	11

25-9-101. Legislative declaration.

To assure adequate operation of water and wastewater facilities, and to preserve the public peace, health, and safety, the provisions of this article and any rules authorized pursuant thereto are enacted to provide for the examination, classification, and certification of water and wastewater facility operators and to establish minimum standards therefore based upon their knowledge and experience, to provide procedures for certification, to encourage vocational education for such operators, to provide a penalty for the wrongful use of the title "certified operator", to require each water and wastewater facility to be under the supervision of a certified operator, to provide for the classification of all water and wastewater facilities in the state, and to provide a penalty for the operation of a water or wastewater facility without supervision of a certified operator.

25-9-102. Definitions.

As used in this article, unless the context otherwise requires:

- (1) "Board" means the water and wastewater facility operators certification board.
- (2) "Certificate" means the certificate of competency issued by the board stating that the operator named thereon has met the requirements for the specified operator classification of the certification program.
- (3) "Certified operator" means the person who has responsibility for the operation of any water and wastewater facility covered under this article and is certified in accordance with the provisions of this article.
- (4) "Department" means the Colorado department of public health and environment.
- (4.3) "Division" means the water quality control division within the department of public health and environment.
- (4.5) "Domestic wastewater treatment facility" means any facility or group of units used for the treatment of domestic wastewater or for the reduction and handling of solids and gases removed from such wastes, whether or not the facility or group of units is discharging into state waters.
- (4.6) "Domestic wastewater treatment facility" specifically excludes on-site wastewater treatment systems.
- (4.7) "Industrial wastewater treatment facility" means any facility or group of units used for the pretreatment, treatment, or handling of industrial waters,

wastewater, reuse water, and wastes that are discharged into state waters. "Industrial wastewater treatment facility" includes facilities that clean up contaminated ground water or spills; except that such term does not include facilities designed to operate for less than one year or facilities with in-situ discharge.

- (4.8) "Small system" means a water or wastewater facility that serves a population of three thousand three hundred or less.
- (4.9) "Wastewater collection system" means a system of pipes, conduits, and associated appurtenances that transports domestic wastewater from the point of entry to a domestic wastewater treatment facility. The term does not include collection systems that are within the property of the owner of the facility.
- (5) "Wastewater treatment facility" means either a domestic wastewater treatment facility or an industrial wastewater treatment facility.
- (5.3) "Water and wastewater facility" means a water treatment facility, wastewater treatment facility, water distribution system, or wastewater collection system.
- (6) "Water distribution system" means any combination of pipes, tanks, pumps, or other facilities that delivers water from a source or treatment facility to the consumer.
- (7) "Water treatment facility" means the facility or facilities within the water distribution system that can alter the physical, chemical, or bacteriological quality of the water.

25-9-103. Water and wastewater facility operators certification board - composition - repeal of article.

- (1) There is hereby created the water and wastewater facility operators certification board which constitutes a section of the division of administration of the department and consists of the following ten members:
 - (a) A certified water treatment or domestic wastewater treatment facility operator with the highest level of certification available in Colorado;
 - (b) A certified industrial wastewater treatment facility operator or other representative of a private entity that operates an industrial wastewater facility;

- (c) A city manager, manager of a special district, or utility manager in a city, county, or city and county that operates a domestic water or wastewater treatment facility;
 - (d) A representative of the department of public health and environment who shall be an ex officio, nonvoting member;
 - (e) A certified water distribution or wastewater collection system operator with the highest level of certification available in Colorado;
 - (f) A representative of water or wastewater facilities serving rural areas; and
 - (g) Four members appointed to achieve geographical representation and to reflect the various interests in the water and wastewater facility certification program. At least one of such members shall reside west of the continental divide, and at least one shall reside in the rural portion of the eastern plains of Colorado.
- (2) All members of the board shall be appointed by the governor. At least four of the voting members of the board shall be certified water or wastewater facility operators, including representatives of both the water and wastewater industries.
- (3) (a) Except as otherwise provided in paragraph (b) of this subsection (3), appointments are for terms of four years.
- (b) The board shall be reconstituted as of July 1, 2004. The governor shall make initial appointments or reappointments to the reconstituted board so that two voting members' terms expire in 2005, two voting members' terms expire in 2006, two voting members' terms expire in 2007, and three voting members' terms expire in 2008.
- (4) This article is repealed, effective September 1, 2020. Prior to the repeal, the water and wastewater facility operators certification board shall be reviewed as provided for in section 24-34-104, C.R.S.

25-9-104. Duties of the board.

- (1) (a) The board shall elect a chair and secretary each year, establish rules in accordance with article 4 of title 24, C.R.S., setting forth the requirements governing certification for water and wastewater facility operators, including:

- (I) Application for certification;
 - (II) Admission to the examinations;
 - (III) Setting and coordination of exam schedules;
 - (IV) Recording and issuing of certificates for the class of operator for which the applicant is found to be qualified;
 - (V) Renewal of certificates;
 - (VI) Issuance of certificates based on reciprocity;
 - (VII) Minimum standards of operator performance; and
 - (VIII) Standards for the accreditation of training programs.
- (2) (a) The board may promote and assist in regular training schools and programs designed to aid applicants and other interested persons to acquire the necessary knowledge to meet the certification requirements of this article.
- (b) The board shall ensure that an office is maintained for contact with operators and employers.
- (c) The board shall ensure, through the use of subject matter experts, that all certification examinations test for information that is relevant to the knowledge that is necessary to operate the level of facility for which certification is sought.
- (3) (a) The board shall establish classes of:
- (I) Water treatment facility operators;
 - (II) Domestic wastewater treatment facility operators;
 - (III) Industrial wastewater treatment facility operators;
 - (IV) Water distribution system operators;
 - (V) Wastewater collection system operators;
 - (VI) Operators for small systems; and
 - (VII) Other persons who require and qualify for multiple certifications.
- (b) In establishing each classification, the board shall differentiate the various levels of complexity to be encountered in water and wastewater facility operation and the qualifications for certification for each class. The board shall set minimum education, experience, examination, and ongoing training requirements for each class.
- (4) Except as provided in section 25-9-104.4, the board shall establish for each water and wastewater facility a minimum class of certified operators required for its supervision.
- (5) (a) The board shall establish a procedure whereby any decision of the

board, the division, or nonprofit corporation contracting with the Board can be appealed to the board.

- (b) The board may adopt rules as necessary to ensure the proper administration of the program.
 - (c) The board may promulgate rules to allow the division to immediately suspend or revoke a certification if immediate action is necessary to protect the public health or environment.
- (6) The board may exercise other powers and duties as necessary within the scope of this article. The board shall promulgate rules to establish criteria for the discipline or reprimand of any water or wastewater facility operator and for the suspension or revocation of the certification of an operator. The criteria must include:
- (a) Willfully or negligently violating, causing, or allowing the violation of rules promulgated under this article or failing to comply with this article;
 - (b) Submitting false or misleading information on any document provided to the department, the board, or any organization acting on behalf of the board;
 - (c) Using fraud or deception in the course of employment as an operator;
 - (d) Failing to conform with minimum standards in the performance of an operator's duties; and
 - (e) Engaging in dishonest conduct during an examination.
- (7) Members of the board serve without compensation but are entitled to reimbursement for their necessary expenses.
- (8) The board may exercise its powers and perform its duties and functions as if it were transferred to the department by a type 1 transfer under the "Administrative Organization Act of 1968", article 1 of title 24, C.R.S.

25-9-104.2. Contracting - rules.

- (1) The board may select and appoint one or more independent nonprofit corporations to carry out the administration of the program and examinations. The board may promulgate a rule establishing the scope

and standards of the independent nonprofit corporation's duties. The contract must specifically address each duty or function required by law.

- (2) To qualify for consideration to administer the duties of this section, a nonprofit corporation must have expertise in training and testing procedures as well as demonstrated knowledge of water and wastewater treatment, collection, and distribution systems.
- (3) With the prior approval of the board for each agreement, a nonprofit corporation contracted by the board may enter into subsidiary agreements with other nonprofit corporations, educational institutions, and for-profit corporations to carry out the duties assigned by the board.
- (4) The board is responsible for and retains the final authority for all actions and decisions carried out on behalf of the board by a nonprofit corporation, educational institution, or for-profit corporation. The board may modify, suspend, or reverse any action or decision of any nonprofit corporation, educational institution, or for-profit corporation.

25-9-104.3. Duties of the division - investigations.

The division shall investigate instances of possible misconduct by water and wastewater facility operators, report the results of any investigation to the board, and make recommendations regarding appropriate disciplinary action to the board.

25-9-104.4. Exemptions.

- (1) The board may exempt wastewater facilities or classes of facilities from the requirement to operate under the supervision of a certified operator if the exemption does not endanger the public health or the environment. In determining whether to provide such an exemption, the board may consider the following criteria:
 - (a) Discharges of limited duration;
 - (b) The sensitivity of the receiving waters;
 - (c) The level of toxic pollutants in the discharge; and
 - (d) Situations where chemical, mechanical, or biological treatment techniques are not required to meet permit limits, including sedimentation ponds at mining operations for construction materials, as defined by section 34-32.5-103 (3), C.R.S.
- (2) The board may exempt water facilities or classes of facilities from the requirement to operate under the supervision of a certified operator if the

exemption does not endanger public health or the environment. In determining whether to provide such an exemption, the board may consider:

- (a) The classification of the facility as public or nonpublic under the Colorado primary drinking water regulation;
- (b) The applicability of the Colorado primary drinking water regulation to the facility or class of facilities; and
- (c) A distribution system having a minimal number of connections.

25-9-105. Water treatment facility operator.

- (1) Persons who by specifically relevant examination, education, and experience are found to be qualified for certification as water treatment facility operators or water distribution system operators shall be certified as having the minimum qualifications required for each of the respective classes as established by the board by rules promulgated in accordance with article 4 of title 24, C.R.S.

(a) to (d) (Deleted by amendment, L. 2000, p. 771, § 5, effective May 23, 2000.)

25-9-106. Domestic wastewater treatment facility operator.

- (1) Persons who by specifically relevant examination, education, and experience are found to be qualified for certification as domestic wastewater treatment facility operators or wastewater collection system operators shall be certified as having the minimum qualifications required for each of the respective classes as established by the board by rules promulgated in accordance with article 4 of title 24, C.R.S.

(a) to (d) (Deleted by amendment, L. 2000, p. 772, § 6, effective May 23, 2000.)

25-9-106.2. Industrial wastewater treatment facility operator.

- (1) Persons who by specifically relevant examination, education, and experience are found to be qualified for certification as industrial wastewater treatment facility operators shall be certified as having the minimum qualifications required for each of the respective classes as established by the board by rules promulgated in accordance with article 4 of title 24, C.R.S.

(a) to (c) (Deleted by amendment, L. 2000, p. 773, § 7, effective May 23, 2000.)

25-9-106.3. Multiple facility operator.

Persons who by specifically related examination, education, and experience are found to be qualified for certification in more than one category of facility operators shall be certified as having the minimum qualifications required for such applicable multiple facility operator classes as the board may establish by rules promulgated in accordance with article 4 of title 24, C.R.S. Such classes of multiple facility operators shall be designed to minimize the number of separate examinations and separate operator certifications that must be held by persons working for small systems, persons in the private sector performing work for a municipality or industry, and other categories and classes where a multiple facility operator certification would be efficient and meet the goals of this article. Such multiple facility certifications may contain conditions established by the board restricting the certification to specific facilities, types of facilities, or activities.

25-9-106.5. Education and experience - substitution allowed.

Water and wastewater facility operator applicants must have a high school diploma or have successfully completed the GED as defined in section 22-33-102 (4.5), C.R.S.; except that experience or relevant training may be substituted for the high school diploma or GED. Education, training as established under section 25-9-104 (2), and cross-experience may be substituted for experience requirements for certification as a water facility operator, as a water distribution system operator, as a domestic wastewater facility operator, as a wastewater collection system operator, as an industrial wastewater treatment facility operator, or as a multiple facility operator; except that at least fifty percent of any experience requirement shall be met by actual on-site operating experience in a water facility or a wastewater facility, as the case may be. For the lowest classification of operator in each category, the board may establish rules allowing complete substitution of education for experience for any applicant who passes the applicable examination. For purposes of this section, "cross-experience" means that experience as a wastewater treatment facility operator may be substituted for experience requirements for certification as water treatment facility operator and vice versa.

25-9-107. Certification procedure.

- (1) Any individual possessing the required education and experience may apply for certification in the manner designated by the board on such forms as required and approved by the board. The application shall be accompanied by such fee as required by section 25-9-108. Those applicants who meet the minimum qualifications as established by rules of

the board promulgated in accordance with article 4 of title 24, C.R.S., for certification shall be admitted for examination.

- (2) When an individual desires certification in a field other than the field in which the individual has experience, the individual's experience shall be evaluated by the board or as directed by the board. The certificate issued is to be based upon the knowledge demonstrated by the applicant through examination and the individual's verified record of work experience in water and wastewater facility operation.
- (3) Certificates shall be awarded by the board or at the direction of the board for a period of three years only to those applicants successfully meeting all of the requirements.
- (4)
 - (a) Certificates shall be renewed upon payment of the required renewal fee and a showing that the applicant for renewal has met the requirements established by the board for ongoing training.
 - (b) If any operator fails to renew the operator's certification before the expiration date of such certification, such certification is expired. If a certification expires because of failure to renew before the expiration date of such certification, the operator may renew the certification up to two years after the expiration date upon paying the required renewal fee and meeting the applicable ongoing training requirements for the certification being renewed. If an operator does not renew a certification within two years after the expiration date of such certification, the certification is automatically revoked and an applicant for recertification must meet all the requirements for certification as a new applicant.
- (4.5) (Deleted by amendment, L. 96, p. 360, 8, effective July 1, 1996.)
- (5) The board, upon application therefor, may issue a certificate, without examination, in a comparable classification to any person who holds a certificate in any state, territory, or possession of the United States or any country, providing the requirements for certification of operators under which the person's certificate was issued do not conflict with the provisions of this article and are of a standard not lower than that specified by regulations adopted under this article. Where there is a question as to the level of certification that should be granted, the board may authorize special examination or other procedures to confirm the appropriate certification level.
- (6) to (8) (Deleted by amendment, L. 96, p. 360, § 8, effective July 1, 1996.)

25-9-108. Fees.

- (1) Each application for certification shall be accompanied by a fee in the amount of fifteen dollars that is not refundable. The board shall adopt rules that set program fees in addition to the nonrefundable application fee in accordance with the provisions of article 4 of title 24, C.R.S., and such fees shall reflect the actual costs of administering the program as set forth in section 25-9-104 (1). Such fees may be collected and retained by a nonprofit corporation selected and appointed by the board pursuant to section 25-9-104 (1) to pay for its actual costs to administer the program as approved by the board through duly adopted rules. However, any such nonprofit corporation shall remit a portion of the fee in the amount of five dollars for each new and renewal certificate to be issued to the department of the treasury pursuant to the provisions of section 24-36-103, C.R.S. With the approval of the board, all moneys may be paid to the nonprofit corporation and except for the five dollars for new and renewal certifications may be retained by the nonprofit corporation to defray program expenses. Alternatively, if certification and renewal fees are received directly by the board, all moneys shall be deposited with the department of the treasury pursuant to the provisions of section 24-36-103, C.R.S.
- (2) Notwithstanding the amount specified for any fee in subsection (1) of this section, the board by rule or as otherwise provided by law may reduce the amount of one or more of the fees if necessary pursuant to section 24-75-402 (3), C.R.S., to reduce the uncommitted reserves of the fund to which all or any portion of one or more of the fees is credited. After the uncommitted reserves of the fund are sufficiently reduced, the board by rule or as otherwise provided by law may increase the amount of one or more of the fees as provided in section 24-75-402 (4), C.R.S.

25-9-109. Use of title.

Only a person who has been qualified by the board as a certified operator and who possesses a valid certificate attesting to this certification in this state shall have the right and privilege of using the title "certified water treatment facility operator, class....", "certified domestic wastewater treatment facility operator, class....", "certified industrial wastewater treatment plant operator, class....", "certified wastewater collection system operator, class....", "certified water distribution system operator, class", or "multiple facilities operator, class....".

25-9-110. Violations - penalty.

- (1) It is unlawful for any person to represent himself or herself as a certified operator of any category and of any class without first being so certified by the board and without being the holder of a current valid certificate issued by the board. Any person violating the provisions of this subsection (1) is guilty of a misdemeanor and, upon conviction thereof, shall be punished by a fine of not more than three thousand dollars.
- (2)
 - (a) It is unlawful for any owner of a water treatment facility, a domestic or industrial wastewater treatment facility, a wastewater collection system, or a water distribution system in the state of Colorado to allow the facility to be operated without the supervision of a certified operator of the classification required by the board for the specific facility.
 - (b) Notwithstanding the provisions of paragraph (a) of this subsection (2), a sedimentary pond maintained in accordance with a permit issued by the division of reclamation, mining, and safety that does not require a permit issued by the water quality control division of the department of public health and environment shall not require the supervision of a certified operator.
- (3) Whenever the division has reason to believe that a violation of subsection (2) of this section has occurred, the division shall cause written notice to be served personally or by certified mail, return receipt requested, upon the alleged violator or their agent for service of process. The notice shall state the provision of subsection (2) alleged to be violated and the facts alleged to constitute a violation and it may include specific action proposed to be required to cease the alleged violation. The division shall require the alleged violator to answer each alleged violation.
- (4) Upon being served with any notice given under subsection (3) of this section, the alleged violator may request a public hearing. Such request shall be filed in writing with the division no later than thirty days after service of the notice. If such a request is made, a hearing shall be held within a reasonable time. Hearings held pursuant to this subsection (4) shall be conducted before the board in accordance with section 24-4-105, C.R.S. The determination of the board following a hearing shall be considered final agency action as to whether a violation has occurred.
- (5) Any owner of a water treatment facility, a domestic or industrial wastewater treatment facility, a wastewater collection system, or a water distribution system in the state of Colorado who violates subsection (2) of this section shall be subject to a civil penalty of not more than three hundred dollars per day for each day during which such violation occurs. Any civil penalty collected under this section shall be credited to the general fund.

- (6) Upon application of the division, any penalty for a violation of subsection (2) of this section shall be determined by the executive director of the department or his or her designee and may be collected by the division through a collection action instituted in a court of competent jurisdiction. The final decision of the executive director or his or her designee may be appealed to the board. A stay of any order of the division pending judicial review shall not relieve any person from any liability under this section, but the reason for the request for judicial review shall be considered in the determination of the amount of the penalty. In the event that such an action is instituted for the collection of such penalty, the court may consider the appropriateness of the amount of the penalty if the party against whom the penalty was assessed raises the issue.