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Colorado Department of Regulatory Agencies
Office of Policy and Research

Colorado Water and Wastewater
Facility Operators Certification
Board



October 15, 2003

STATE OF COLORADO

DEPARTMENT OF REGULATORY AGENCIES

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Bill Owens
Governor

October 15, 2003

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 Colorado Department of Regulatory Agencies has completed its evaluation of the Colorado Water and Wastewater Facility Operators Certification Board (Board). I am pleased to submit this written report, which will be the basis for my office's oral testimony before the 2004 legislative committee of reference. The report is submitted pursuant to section 24-34-104(9)(b), 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 Board and staff in carrying out the intent of the statutes and makes recommendations for statutory and administrative changes in the event this regulatory program is continued by the General Assembly.

Sincerely,

Richard F. O'Donnell
Executive Director

2003 Sunset Review Colorado Water and Wastewater Facility Operators Certification Board

Department of Regulatory
Agencies

Bill Owens
Governor

Richard F. O'Donnell
Executive Director



EXECUTIVE SUMMARY

Quick Facts

What is Regulated? Water treatment facilities and water distribution facilities.

Who is Regulated? In fiscal year 01-02 there were:

- 838 Water treatment facility operators
- 501 Water distribution system operators

How is it Regulated? A thirteen-member Board housed in the Colorado Department of Public Health and Environment sets policy and promulgates rules. The program has two major components: (1) maintenance of professional standards for water plant operators through certification, in-service training, and disciplinary actions (Board); and, (2) enforcement of compliance with the requirements that systems be under the supervision of a certified operator (Water Quality Control Division).

What Does it Cost? Exclusive of contractor expenses, FY 02-03 expenditure to oversee this program was \$100,985. In 2003, the cost for each certification was \$5.00. The Board is staffed by 1.5 FTE. Additionally, a number of functions are contracted to private vendors.

What Disciplinary Activity is There? During the period FY 01-02 to FY 02-03, the Board's actions consisted of:

Complaints Received	19
Compliance Advisory	16
Letter of Reprimand	1
Consent Agreement	1
Other	68

Where Do I Get the Full Report? The full sunset review can be found on the internet at:

<http://www.dora.state.co.us/opr/2003Wastewater.pdf>

Key Recommendations

Continue the Water and Wastewater Facility Operators Certification Board (Board) until 2013

Water is a basic requirement for sustaining life. Having well-qualified operators of water and wastewater treatment systems is essential to maintaining an adequate and clean supply of water for domestic and commercial uses. The Board performs effectively to certify, discipline, and provide guidance to certified water and wastewater operators, who in turn help to ensure healthy and safe water for every Coloradan. Consequently, as an essential component of the existing regulatory scheme, the Board should be continued until 2013.

Reduce the size of the Board by four voting members and alter the Board's composition

The Board is currently composed of thirteen members. In comparison to several other state regulatory boards, this is an unusually large size for such a body. Studies have shown that large membership may slow the pace of decision making. Consequently, reducing the number of members from 13 to 9 should increase the Board's efficiency. Also, composition of the Board is redundant in certain respects and includes a voting member from the Colorado Department of Public Health and Environment. This report recommends specifying that at least three members are to represent a variety of interests, including those of the public, thus providing maximum flexibility to the Governor to appoint Board members.

Institute term limits for Board members

Term limits have become the standard practice in Colorado government. The Governor is limited to two terms, as well as members of the General Assembly. In addition, nearly all of the members of professional licensing boards are subject to term limits. It is consequently in keeping with current practice and effective public protection to institute term limits for members of the Water and Wastewater Facility Operators Certification Board.

...Key Recommendations Continued

Include the setting and coordination of examination schedules as duties of the Board, and include the elements of this provision as performance items in subsequent contracts

Certification examinations are offered in two separate exam cycles each year. Separate schedules apply for (1) treatment plant operator certification examinations and (2) distribution and collection system operator certification examinations. Although examinations for all certification levels (Water, Wastewater, and Industrial, levels A through D; Small Water and Wastewater; and Transient Non-Community) are offered during each exam cycle, all levels are not offered on each of the exam dates. The current examination schedule is overly complicated given that a number of individual operators hold multiple certifications. The Board should negotiate with each of its primary contractors the actual examination schedules for the period in which the next contract will be in force taking into account those operators seeking multiple certifications, as well as the scheduling concerns of facility managers and the contractors themselves. These performance items should be enumerated in the next set of contracts.

Allow contractors to provide “exam feedback” instead of “failed exam reviews”

Previously when operator certification examinations were essay-type exams developed and graded by committees of Colorado operators, an “exam review session” was scheduled after each exam cycle to allow operators to review the grading of their responses. Now that the program uses standardized, multiple-choice exams developed by the Association of Boards of Certification review of individual exams and answer sheets is not necessary.

Revise the next set of contracts with all prospective contractors to include a clause that selection of subcontractors is contingent upon the approval of the Board

The Board is empowered to select one or more nonprofit corporations to carry out the administration of the program. In turn, these contractors are empowered to enter into subsidiary agreements. Although the Board retains ultimate responsibility, in practice, subcontractors are not subject to extensive oversight by the Board. For example, one primary contractor met its obligation of maintaining an office for contact with operators and facility owners by means of a subcontract. The contractor, however, did not seek approval from the Board in selecting the subcontractor. It is also true, however, that the Board did not request to review the specific arrangements. Clearly, it is unreasonable for the Board to be responsible for program outputs without having active oversight of inputs. Consequently, upon the expiration of the two existing contracts on or about June 30, 2004, the Board should draft new contracts to include a provision that a contractor’s selection of any subcontractors is contingent upon the Board’s approval.

Major Contacts Made In Researching the 2003 Sunset Review of the Board

Board Members
Colorado Environmental Certification and Testing, Inc.
Colorado Water Distribution and Wastewater Collection Certification Council
Water Utilities Council
American Water Works Association (Rocky Mountain Section)
Water Environment Association (Rocky Mountain Section)
Rocky Mountain Section, AWWA
Colorado Department of Public Health and Environment staff

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 the public interest. In formulating recommendations, sunset reviews consider the public’s right to consistent, high quality professional or occupational services and the rights of businesses to exist and thrive in a highly competitive market, free from unfair, costly or unnecessary regulation.

Sunset Reviews are Prepared By:
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Background

The Sunset Process

The regulatory functions of the Water and Wastewater Facility Operators Certification Board (Board) in accordance with section 25-9-103(4) of the Colorado Revised Statutes (C.R.S.), shall terminate on July 1, 2004 unless continued by the General Assembly. During the year prior to this date, it is the duty of the Department of Regulatory Agencies (DORA) to conduct an analysis and evaluation of the Board pursuant to section 24-34-104(9)(b), C.R.S.

The purpose of this review is to determine whether the Board should be continued for the protection of the public and to evaluate the performance of the Water Quality Control Division of the Colorado Department of Public Health and Environment. During the review, these agencies must demonstrate that there is still a need for the certification of water and wastewater operators, and that the regulation is the least restrictive regulation consistent with the public interest. DORA's findings and recommendations are submitted via this report to the legislative committee of reference of the Colorado General Assembly. Statutory criteria used in sunset reviews may be found in Appendix A.

Methodology

As part of this review, DORA staff attended Board meetings, interviewed agency staff, reviewed Colorado statutes and regulations, and conducted a survey of stakeholders.

Profile of the Profession

The following profile of the water and wastewater operator profession is based on the U.S. Department of Labor's *Occupational Outlook Handbook*.

Clean water is essential for everyday life. Water pollution standards have become increasingly stringent since adoption of two major federal environmental statutes: the Clean Water Act of 1972, which implemented a national system of regulation on the discharge of pollutants; and, the Safe Drinking Water Act of 1974, which established standards for drinking water. Industrial facilities sending their wastes to municipal treatment plants must meet certain minimum standards to ensure that the wastes have been adequately pretreated and will not damage municipal treatment facilities. Municipal water treatment plants also must meet stringent drinking water standards. The list of contaminants regulated by these statutes has grown over time. For example, the 1996 Safe Drinking Water Act Amendments include standards for the monitoring of cryptosporidium and giardia, two biological organisms that cause health problems.

Water treatment plant and system operators treat water so that it is safe to drink. Wastewater treatment plant and system operators, remove harmful pollutants from domestic and industrial liquid waste so that it is safe to return to the environment. Operators must be familiar with the guidelines established by federal regulations and how they affect their plant. In addition to federal regulations, operators also must be aware of any guidelines imposed by the state or locality in which the plant operates.

Water is pumped from wells, rivers, and streams to water treatment plants, where it is treated and distributed to customers. Liquid waste travels through customers' sewer pipes to liquid waste treatment plants, where it is treated and returned to streams, rivers, and aquifers, or reused for irrigation and landscaping. Operators in both types of plants control processes and equipment to remove or destroy harmful materials, chemical compounds, and microorganisms from the water. They also control pumps, valves, and other processing equipment to move the water or liquid waste through the various treatment processes, and dispose of the removed waste materials.

Most operators work for local governments. Local governments are the largest employers of water and liquid waste treatment plant and system operators. However, federal certification requirements have increased reliance on private firms specializing in the operation and management of water and liquid waste treatment facilities.

Operators read, interpret, and adjust meters and gauges to make sure plant equipment and processes are working properly. They operate chemical-feeding devices, take samples of the water or liquid waste, perform chemical and biological laboratory analyses, and adjust the amount of chemicals, such as chlorine, in the water. They use a variety of instruments to sample and measure water quality, and common hand and power tools to make repairs. Operators also make minor repairs to valves, pumps, and other equipment.

Water and wastewater treatment operators increasingly rely on computers to help monitor equipment, store sampling results, make process-control decisions, schedule and record maintenance activities, and produce reports. When problems occur, operators may use their computers to determine the cause of the malfunction and its solution.

Occasionally operators must work under emergency conditions. A heavy rainstorm, for example, may cause large amounts of liquid waste to flow into sewers, exceeding a plant's treatment capacity. Emergencies also can be caused by conditions inside a plant, such as chlorine gas leaks or oxygen deficiencies. To handle these conditions, operators are trained to make an emergency management response and use special safety equipment and procedures to protect public health and the facility. During these periods, operators may work under extreme pressure to correct problems as quickly as possible. These periods may create dangerous working conditions, and operators must be extremely cautious.

The specific duties of plant operators depend on the type and size of plant. In smaller plants, one operator may control all machinery, perform tests, keep records, handle complaints, and do repairs and maintenance. A few operators may handle both a water treatment and a liquid waste treatment plant. In larger plants with many employees, operators may be more specialized and only monitor one process. The staff also may include chemists, engineers, laboratory technicians, mechanics, helpers, supervisors, and a superintendent.

The Safe Drinking Water Act Amendments of 1996, enforced by the U.S. Environmental Protection Agency, specify national minimum standards for certification and recertification of operators of community and nontransient, noncommunity water systems. As a result, operators must pass an examination to certify that they are capable of overseeing liquid waste treatment plant operations. There are different levels of certification depending on the operator's experience and training. Higher certification levels qualify the operator for a wider variety of treatment processes. Certification requirements vary by state and by size of treatment plants. Although relocation may mean having to become certified in a new location, many states accept other states' certifications.

Most state drinking water and water pollution control agencies offer training courses to improve operators' skills and knowledge. These courses cover principles of treatment processes and process control, laboratory procedures, maintenance, management skills, collection systems, safety, chlorination, sedimentation, biological treatment, sludge treatment and disposal, and flow measurements.

History of Regulation

As a result of House Bill 00-1431, the Water and Wastewater Facility Operators Certification Board (formerly Plant Operators Certification Board) was created. The new statute and regulations were in part intended to satisfy the new requirements of the federal Safe Drinking Water Act, and to assure a consistent and effective certification program in Colorado. The federal requirements are outlined below.

The program was recently reorganized in order to implement the requirements of section 25-9-101, *et seq.*, C.R.S., which was enacted in May 2000. The regulation implementing this new structure became effective January 30, 2001. Contracts for Program administration were signed in late February 2001. The enforcement arm of the Program within the Water Quality Control Division was made a permanent position in March 2001.

State Water Agencies

There are seven main state agencies involved with issues related to water. In general, the agencies associated with the Colorado Department of Natural Resources (DNR) are primarily involved with water quantity, while the agencies associated with the Colorado Department of Public Health and Environment (CDPHE) are mostly concerned with issues of water quality. Brief descriptions of each follow.

Colorado Water Conservation Board, Department of Natural Resources

The Colorado Water Conservation Board (CWCB) was created in 1937, and is the state executive branch agency responsible for state water policy and planning. The CWCB's mission is to promote the protection, conservation and development of Colorado's water resources and minimize the risk of flood damage. Its major programs include: water supply protection; water supply planning and finance; conservation and drought planning; flood protection; instream flow and natural lake protection; and, water information. The agency operates under the direction of a 15-member board. The CWCB is comprised of representatives from eight major river basins and the City and County of Denver plus the DNR Executive Director, the Commissioner of Agriculture, the Colorado Attorney General, the State Engineer, the Division of Wildlife Director, and the CWCB Director.

Division of Water Resources, Department of Natural Resources

The Division of Water Resources administers and enforces all surface and ground water rights throughout the State of Colorado, issues water well permits, approves construction and repair of dams, and enforces interstate compacts. The Division of Water Resources is also the agency responsible for implementing and enforcing the statutes of the Ground Water Management Act passed by the General Assembly, as well as implementing applicable rules and policies adopted by the Colorado Ground Water Commission and the State Board of Examiners of Water Well Construction and Pump Installation Contractors.

Ground Water Commission, Department of Natural Resources

The Colorado Ground Water Commission is a regulatory and an adjudicatory body authorized to manage and control designated ground water resources within the state of Colorado. The Ground Water Commission adopts rules and policies related to issuing large capacity well permits and changes in ground water rights within the designated ground water basins. Currently, the Ground Water Commission has established eight designated ground water basins and 13 ground water management districts within these basins.

State Board of Examiners of Water Well Construction and Pump Installation Contractors, Department of Natural Resources

The Board of Examiners is responsible for enforcement of the statutory and regulatory standards for water well construction, pump installation, monitoring and observation well construction, dewatering wells, test holes and the abandonment of wells. The Board is also responsible for the licensing of water well construction contractors and pump installation contractors. The Board promulgates rules and adopts policies and procedures necessary to safeguard the public health and protect the ground water resources of the state.

Water Quality Control Commission, Department of Public Health and Environment

The Colorado Water Quality Control Commission is the administrative agency responsible for developing specific state water quality policies in a manner that implements the broader policies set forth by the General Assembly in the Colorado Water Quality Control Act. The Commission adopts water quality classifications and standards for surface and ground waters of the state, as well as various regulations aimed at achieving compliance with those classifications and standards.

Water Quality Control Division, Department of Public Health and Environment

The Water Quality Control Division is the agency responsible for implementing and enforcing the regulations adopted by the Water Quality Control Commission, as well as applicable regulations adopted by the State Board of Health. The Division regulates the discharge of pollutants into state waters and enforces the state regulations governing public water supplies.

The Water and Wastewater Facility Operators Certification Board, Department of Public Health and Environment

The Water and Wastewater Facility Operators Certification Board (Board) is the subject of this sunset review. The Board maintains a program for the certification of operators of water treatment plants, municipal and industrial wastewater treatment plants, water distribution systems and wastewater collection systems. Its mission is to protect the environment and public health.

Classification of Water Facilities

Water treatment facilities are classified by the Water Quality Control Division (Division) of the Colorado Department of Public Health and Environment according to a number of factors, including special features of design, source of supply, or a combination of these conditions. In general, a classification of “A” is the highest, while “D” is the lowest.

Each public water system has a dual classification – one for water treatment and one for water distribution. Treatment classifications are based primarily upon the complexity of the treatment processes utilized by the system. The process-based treatment classification is then “scaled” upwards as the size of the system increases. Distribution classifications are based primarily on size. Systems with additional complexity may be classified at a higher level on a case-by-case basis. A matrix of classifications is set out in Regulation 100.4.

Regulation 100.21.1 holds that no owner of a water or wastewater facility is permitted to operate his or her plant without the direct supervision of an operator in responsible charge certified in a classification equivalent to, or higher than the classification of the facility. Facility classifications are matched with their designated operator's certification level by means of the system/operator database. The Technical Services Unit of the Division reviews classifications as each facility is inspected. Final decisions and confirmation of classification changes are the responsibility of the Facility Operators Program, subject to review by the Board.

Compliance Status of Treatment Systems

Under the provisions of the Safe Drinking Water Act, all community and non-transient non-community public water systems must be under the supervision of an appropriately certified operator. The new system/operator database developed by the Division now permits an accurate tracking of systems with respect to the operator certification requirement. There are 845 community water systems and 137 non-transient non-community water systems in the State of Colorado. Of these 982 systems, 837 systems (85 percent) are currently under the supervision of a water treatment operator certified at the appropriate level. An additional 45 systems are operating under a compliance schedule that requires them to be under the supervision of a certified operator by a specified date. The remaining 100 systems (10 percent) are not in compliance with the fundamental operator certification regulation.

Compliance Status of Distribution Systems

Public water systems that have distribution systems are required for the first time to be under the supervision of an operator certified in water distribution. At this time, Colorado considers each public water system regulated under the Safe Drinking Water Act to have a distribution system unless otherwise demonstrated.

In Colorado, of the 982 systems regulated under the Safe Drinking Water Act, 277 (28 percent) are not currently under the supervision of an operator certified as a distribution system technician. Of those systems, 138 (14 percent of the total) are operating under Letters of Authorization under the grandparenting program established in Regulation 100, section 100.18.2. Almost all of the very small community systems or non-transient non-community systems (139 or 14 percent of the total), do not have a certified distribution system operator and are not participants in the grandparenting program.

Available information prior to the establishment of the current system/operator database did not contain adequate data to allow a true baseline to be established for the new certification program. However, a measure of compliance improvement made during the year can be made by examining the number of certifications issued for newly established classifications, the number of systems with letters of authorization that have come into compliance and the number of systems on a compliance schedule that have come into compliance.

Small Water Systems: The state has issued 129 new “Small Water System” certifications. This is a new certification equivalent to the “D” level treatment and a “1” level distribution certifications combined. It can be assumed that those taking this examination do not currently hold either a “D” or a “1” certification. We believe this means that 129 small systems that did not have certified operators prior to 2001 are now in compliance.

Letters of Authorization: Of the 239 Letters of Authorization issued for distribution systems, 138 are still in effect, and 101 distribution systems have come into compliance. There is some degree of overlap with the new “small water systems” certifications issued.

Compliance Schedules: A compliance schedule is issued under facility-specific circumstances and requires that the facility be placed under the supervision of a certified operator by a certain date. The Division has issued 105 compliance schedules since the beginning of 2001. To date, 60 of those schedules have been met. There are, therefore, 60 systems that have come into compliance by way of a schedule.

In summary, the Division estimates that 90 percent of treatment systems and 86 percent of distribution systems are either in full compliance with the operator certification requirement (85 percent treatment; 72 percent distribution) or are operating under an agreed upon schedule for attaining compliance (5 percent treatment; 14 percent distribution). This information will be useful in planning training sessions and locating future examination sites.

Legal Framework

Federal Law

The Safe Drinking Water Act (SDWA) Amendments of 1996 (Pub. L. 104-182) direct the Administrator of the Environmental Protection Agency (EPA), in cooperation with the states, to publish guidelines in the Federal Register specifying minimum standards for certification and recertification of operators of community and nontransient noncommunity public water systems. The final guidelines were published on February 6, 1999. States then had two years after publication to adopt and implement an operator certification program that meets the requirements of these guidelines. After that date, unless a state has adopted and is implementing an approved program, the EPA Administrator must withhold 20 percent of the funds a state is otherwise entitled to receive in its Drinking Water State Revolving Fund (DWSRF) capitalization grants under section 1452 of SDWA. All of the requirements contained in the EPA guidelines are to avoid DWSRF capitalization grant withholding. There are no other sanctions for states with operator certification programs that do not meet the requirements of these guidelines.

Summary of Colorado Law

Article 9 of Title 25 of the Colorado Revised Statutes (C.R.S.) sets out the General Assembly's policy concerning water and wastewater facility operators certification. More specifically, the legislative declaration establishes that the purpose of the statute is to assure adequate operation of water and wastewater facilities, and to preserve the public peace, health, and safety. Further, the statute is designed to provide for the examination, classification, and certification of water and wastewater facility operators. The article offers title protection for the designation of "certified operator" and provides a penalty for the operation of a water or wastewater facility without supervision of a certified operator (§ 25-9-101, C.R.S.)

Section 25-9-102, C.R.S. defines a "certified operator" as the person who has responsibility for the operation of any water and wastewater facility covered under the article and who is certified in accordance with its provisions. "Board" means the Water and Wastewater Facility Operators Certification Board. A "wastewater treatment facility" can be either a domestic wastewater treatment facility or an industrial wastewater treatment facility. "Water and wastewater facility" means a water treatment facility, wastewater treatment facility, water distribution system, or wastewater collection system.

Board Composition

Section 25-9-103, C.R.S. creates the 13-member Water and Wastewater Facility Operators Certification Board (Board). The Board is housed in the Department of Public Health and Environment. Board members are appointed by the Governor and serve without compensation, except for necessary expenses. At least three of the members of the Board must represent private industry.

The remaining criteria for the appointment of 11 of its members are as follows:

- One member who is a certified water treatment facility operator with a minimum of four years' experience and demonstrated knowledge of and experience with all aspects of water treatment;
- One member who is a certified domestic wastewater treatment facility operator with a minimum of four years' experience and demonstrated knowledge of and experience with all aspects of wastewater treatment;
- One member who is a certified industrial wastewater treatment facility operator;
- One small systems operator who is certified as a water or wastewater facility operator;
- A representative from the Colorado municipal league;
- A representative of the department of public health and environment;
- A representative recommended by the state water quality control commission;
- A certified water distribution system operator;
- A certified wastewater collection system operator;
- A representative from the Colorado Rural Water Association; and,
- A city manager, manager of a special district, or utility manager in a city, county, or city and county.

Powers and Duties of the Board

Section 25-9-104, C.R.S., establishes the powers and duties of the Board.

The Board is empowered to promulgate rules in accordance with Article 4 of Title 24, C.R.S., which establishes the requirements governing certification for water and wastewater facility operators. More specifically, the Board may establish application procedures, issue certificates, renew certificates, control admission to examinations, maintain records, make determinations regarding reciprocity, establish operator minimum standards, and criteria for the accreditation of training programs. The Board must also ensure that an office is maintained for contact with operators and employers.

The Board is authorized to establish procedures whereby any decision of the Board, the Division, or any organization performing duties on behalf of the Division can be subject to appeal to the Board. The Board is also empowered 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.

The Board is charged with establishing classes of certified water treatment facility operators, classes of domestic wastewater treatment facility operators, classes of industrial wastewater treatment facility operators, classes of water distribution system operators, classes of wastewater collection system operators, classes of operators for small systems, and classes of other persons who require and qualify for multiple certifications. In establishing each classification, the Board differentiates between the various levels of complexity in water and wastewater facility operation. The Board sets the minimum education, experience, examination, and ongoing training requirements for each class.

The Board ensures, 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. The Board is directed by section 25-9-104, C.R.S., to enter into contracts with any selected nonprofit corporation, which is to receive applications and fees, conduct examinations and maintain results, conduct failed exam reviews, notify applicants of results, make recommendations on issuance of certificates, and prepare and distribute an annual report.

The Board is also empowered to select and appoint one or more independent nonprofit corporations to carry out the administration of the program and examinations, including, but not limited to, 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, grading examination papers, evaluating work experience of applicants, evaluating continuing training for renewal purposes, and evaluating requests for reciprocity.

With the permission of the Board, a nonprofit corporation contracted with may enter into subsidiary agreements with other nonprofit corporations, educational institutions, and for-profit corporations to carry out the duties assigned by the Board. The Board retains the final authority for all actions and decisions carried out on behalf of the Board by any such entities, including the authority to modify, suspend, or reverse any action or decision.

General Certification Provisions

Section 25-9-106.3, C.R.S., establishes multiple facility operator certification. Persons who by specifically related examination, education, and experience are found to be qualified for certification in more than one category of facility operation may be classified by the Board into groupings designed to minimize the number of separate examinations and separate operator certifications that must be held where a multiple facility operator certification would be efficient and meet the goals of the article. Such multiple facility certifications may contain conditions established by the Board restricting the certification to specific facilities, types of facilities, or activities.

Section 25-9-106.5, C.R.S., allows the substitution of experience for education. Water and wastewater facility operator applicants must have a high school diploma or have successfully completed the General Equivalency Diploma (GED). Education, training, and cross-experience may be substituted for experience requirements for each type of certification, except that at least 50 percent of any experience requirement must 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.

Section 25-9-107, C.R.S., sets out certification procedures. Certificates are awarded by the Board for a period of three years to those applicants meeting all of the requirements. Certificates are renewed upon payment of renewal fees and a showing that the applicant has met the requirements established by the Board for ongoing training. Operators may renew their certifications up to two years following expiration after which time the certification is automatically revoked.

The Board, upon application, may issue a certificate, without examination, in a comparable classification to any person who holds a certificate in any country, state, territory, or possession of the United States, provided that the requirements for certification of operators under which the person's certificate was issued do not conflict with provisions of Colorado law and are of a standard not lower than that specified by law. 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.

Violations and Penalties

Section 25-9-110, C.R.S., sets out what constitutes a violation of the act and the associated penalties. 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 this provision may be found guilty of a misdemeanor and, upon conviction, may be fined not more than \$3,000.

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.

Whenever the Division has reason to believe that a violation has occurred, it must provide written notice to the alleged violator or his or her agent. The notice is to state the facts alleged to constitute a violation and it may include specific action proposed to be required to cease the alleged violation. The alleged violator is required to answer, and may request a public hearing within 30 days of notification. Hearings held must 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.

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 the act is subject to a civil penalty of not more than \$3,000 per day for each day during which such violation occurs. Any civil penalty collected is credited to the General Fund. Upon application of the Division, any penalty for a violation is determined by the Executive Director of the Department of Public Health and Environment 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.

Program Description and Administration

The Colorado Water and Wastewater Facility Operators Certification Program (Program) is administered from within the Colorado Department of Public Health and Environment. The 13-member Water and Wastewater Facility Operators Certification Board (Board) sets policy and promulgates rules. The program has two major components: (1) maintenance of professional standards for water plant operators through certification, in-service training, and disciplinary actions (Board); and, (2) enforcement of compliance with the requirements that systems be under the supervision of a certified operator (Water Quality Control Division).

In the past, the budgetary priorities of the State of Colorado precluded the program from becoming self-funding as long as it remained a part of the Water Quality Control Division (Division). In order to improve the quality of the program and to allow it to be self-funding, program administration was privatized. Contracts were executed between the Board and Colorado Environmental Certification and Testing, Inc. (CECTI) and between the Board and the Colorado Water Distribution and Wastewater Collection Systems Certification Council (Certification Council). These two groups are responsible for administering testing, renewals, reciprocity, and certification-related record keeping functions on behalf of the Board.

In turn, the day-to-day administration of the program is handled by the Operator Certification Program Office (OCPO), which is a subcontractor to both CECTI and the Certification Council. OCPO is available to plant operators by phone, fax, email and office visit during normal business hours. OCPO tracks each operator's certification status by means of an Access database that lists more than 7,800 operators. This database tracks each operator's contact and employment information, current and past certifications, examination data, renewal data, and disciplinary status. The administration fee charged each certified operator funds the construction and maintenance of this database. To ensure that the information transferred from the operator databases formerly maintained by the State (for treatment operators) and the Certification Council (for distribution and collection) is accurate, each operator was contacted by mail and provided with an opportunity to update and correct information. It is projected that a full renewal cycle, three years, will be required to completely update the operator database.

In addition, a system/operator database has been created. Data collected by the Division for public water systems over the past year (system contact information, operator in responsible charge designations, and system classifications) have been entered into a new database that bridges the operator certification database and the Division's existing public water system database. This new database was developed by Division staff. It can be easily updated and will allow the Division to track system compliance with the operator certification requirements. Information in this database will provide a baseline for judging future progress toward full compliance with the basic requirement that each public water system and that each domestic and industrial wastewater system be under the supervision of an appropriately certified operator.

CECTI and the Certification Council each provide a board of volunteer members who oversee the administrative aspects of their contract with the Board and the activities of OCPO. These groups also provide committees of experienced operators who make substantive decisions (which can be appealed to the Board) on such matters as evaluation of examination applications, reciprocity decisions, and training unit approvals. Members of CECTI and the Certification Council also work with the Association of Boards of Certification (ABC) on the formulation and administration of validated examinations. These groups report to the Board on a monthly basis and present substantive written analyses of each testing cycle.

The staffing and financial resources of the program are outlined in Table 1 below.

**Table 1
Agency Staff and Fiscal Information**

Year	Total Program Income*/Expense	FTE
1/01 – 12/01 Contractors	\$182,744 income \$122,887 expense	n/a
FY 01-02 Division	\$73,102 (personnel)	1.0
FY 01-02 Board	\$22,002 (personnel) \$3881 (operating)	0.5
1/02 – 12/02 Contractors	\$ 228,902 income \$ 224,426 expense	n/a
FY 02-03 Division	\$79,275 (personnel)	1.0
FY 02-03 Board	\$19,935 (personnel) \$1775 (operating)	0.5
1/03 to date Contractors	\$79,767 income \$76,881 expense	n/a

* Table does not reflect \$13,030 paid directly by the Program’s contractors to the State Treasury pursuant to CRS 25-9-108(1). See Narrative below.

In terms of staffing, the Operator Certification Program has three components. First, the Colorado Department of Public Health and Environment supplies 0.5 Full-Time Equivalent (FTE) as support staff to the Board. This support consists of correspondence, website maintenance, file maintenance, meeting support, and customer service. In addition, a Program Administrator has assumed the responsibility of administering the Board meetings and related matters. Second, the Water Quality Control Division supplies one FTE whose duties include compliance, discipline and enforcement, and facility classification issues. This person also acts as a policy advisor and liaison to the Board. Finally, the Board contracts the administrative aspects of the Program – testing, renewals, reciprocity, and

database management – to two not-for-profit organizations: Colorado Environmental Certification and Testing, Inc. (treatment) and the Colorado Water Distribution and Wastewater Collection Systems Certification Council (distribution and collection). Both organizations are composed of professional operators who volunteer their expertise and service.

In terms of fiscal resources, state income from this program is set by statute (§ 25-9-108(1), C.R.S.) at \$5.00 per certification issued. The contractors make deposits to the State Treasury annually in February. To date, \$13,030 has been deposited to the Treasury under the new program structure.

The Board's nonprofit contractors both use calendar year financial tracking. Their income is from application fees (\$15), examination fees (\$25), and administration fees (\$60) associated with the Program. Their principal expenses are the cost of testing and the time-cost for their management staff. Currently, each of the contractors carries a positive balance of around \$20,000, roughly half the cost of a single examination cycle.

Operator Certification

There are approximately 4,000 recently certified water and wastewater treatment, water distribution, and wastewater collection operators in Colorado. These operators serve more than 2,000 drinking water systems and a like number of wastewater systems, both domestic and industrial. Many operators, particularly those serving small communities, care for both water and wastewater systems and hold multiple certifications. Certification is mandated for drinking water system operators by section 1419 of the federal Safe Drinking Water Act and by Colorado statute (§25-9-101, *et seq.*, C.R.S.). Certification for both water and wastewater system operators is mandated by Colorado statute (§25-9-101, *et seq.* C.R.S.).

Pursuant to Board policy, certification endorsement for out-of-state certifications is granted on a case-by-case basis. There are no reciprocity agreements with other states, although the endorsement process for certifications from states utilizing the Association of Boards of Certification (ABC) examinations is straightforward. At this time 40 states, including Colorado, utilize the ABC examinations.

Examinations are offered in the spring and fall of each year at a variety of sites within the state. Currently, treatment examinations are offered at five sites during the spring and at seven sites during the fall. Distribution and collection examinations are offered at three sites in the spring and at two sites in the fall as discussed below in the next section. Table 2 depicts certification activity over the last three fiscal years.

**Table 2
Certification Information**

Fiscal Year	Number of Licenses			
	By Examination	Endorsement / Reciprocity	Renewal	TOTAL
00-01 Treatment*	587	9	—	596
00-01 Collection & Distribution (C&D)	510	5	—	515
01-02 Treatment	696	10	132	838
01-02 C&D	383	7	111	501
02-03 Treatment	572	28	233	833
02-03 to date** C&D	292	12	52	356
Total	3040	71	528	3639

* Examinations for drinking water, domestic wastewater, and industrial wastewater treatment are administered separately from the examinations in wastewater collection and water distribution (denoted as C&D examinations).

** For FY 02-03, only one set of collection/distribution examinations has been offered to date.

When the new statute was enacted in May 2000, all certifications expiring prior to January 30, 2004 were given a one-year extension to allow operators to fulfill the new in-service training renewal requirements. This extension made it unnecessary to process renewals during fiscal year 00-01. Staff anticipate a significant increase in the number of renewals issued, beginning in 2004 and continuing thereafter.

According to current requirements, operators must renew their certification every three years. To do this an operator must demonstrate the completion of approved training units. The number of training units to be completed depends upon the level of certification. training units are approved, on behalf of the Board, by the Board's administrative contractors. All approved courses are listed on the Board's website. This listing includes course dates, contact information, and the number of training units in each discipline for which the course is approved. Opportunities for operator training are provided by private individuals, by private and state institutions, by professional organizations, and by individual municipalities and districts.

Operator Examinations

The initial operator certification process is administered, on behalf of the Board, by two contractors. Water treatment examinations are administered by CECTI (the parent organizations of CECTI are the American Water Works Association, the Water Environment Association, and the Colorado Rural Water Association). Water distribution and wastewater collection examinations are administered by the Certification Council. All examination contents and formats, with the exception of industrial wastewater treatment, are provided by the Associated Boards of Certification (ABC). ABC is a national certification organization based in Ames, Iowa. Approximately 40 other states and several Canadian provinces utilize the ABC examinations.

Prerequisites for taking water and wastewater certification examinations are as follows: Entry level certifications – “D” and “S” level treatment and level “1” collection or distribution – require one month of on-the-job experience or a training course approved by the Board. Two years of on-the-job experience are required to qualify for the “C” level treatment or level “2” collection or distribution examinations. Three years of experience are required to qualify for the “B” level treatment examination, and four years of experience are required to qualify to the “A” level treatment or level “3” collection or distribution examinations. No prior experience is required to sit for the “Transient Non-Community” examination.

A high school diploma or GED is required in order to sit for any operator examination. Post-high school education in relevant subject matter areas may be used to count for up to 50 percent of the experience requirement. Experience in water treatment may be used for up to 50 percent of the experience requirement to sit for a wastewater examination, and vice-versa.

All certification examinations are validated by ABC as to relevancy and the correctness of each individual question. Industrial wastewater examinations at the “C”, “B”, and “A” levels were developed and validated locally. All Colorado examinations are “prescriptive” examinations, which means that the difficulty of the overall examination can be assigned, and that 10 percent of each examination is composed of questions specific to Colorado requirements.

Pass rates by type of exam are shown in Table 3 below. Water treatment examinations are given twice a year on a variety of dates and at a variety of locations within the state. Spring examinations run from mid-January through March (Boulder twice, Colorado Springs, Alamosa, and Rifle), and Fall examinations run from August through October (Fort Morgan, Leadville, Grand Junction, Alamosa, Pueblo, Boulder, and Durango). These examinations are administered by the Board’s contractor Colorado Environmental Certification and Testing, Inc.

**Table 3
Examination Information**

Fiscal Year	Number of Written Examinations Given	Pass Rate (%)	Number of Practical Examinations Given	Pass Rate (%)
00-01 Treatment	1178	49.8%	n/a	n/a
00-01 Collection & Distribution (C&D)	841 (Spring '01 only)	60.6%*	n/a	n/a
01-02 Treatment	1382	50.4%	n/a	n/a
01-02 C&D	943	41.9%	n/a	n/a
02-03 Treatment	1350	42.4%	n/a	n/a
02-03 C&D	410 (Fall '02 only)	71.2%	n/a	n/a

* Examinations for drinking water, domestic wastewater, and industrial wastewater treatment are administered separately from the examinations in wastewater collection and water distribution (denoted as C&D examinations).

Collection and distribution examinations are given in mid-May (Boulder, Pueblo, and Montrose) and in mid-November (Boulder and Montrose). These examinations are administered by the Board's contractor the Colorado Water Distribution and Wastewater Collection Certification Council.

Since the inception of the program, a total of 1,151 operators have qualified for the newly required certifications in water distribution (644) and wastewater collection (507); a total of 696 operators have qualified for new or upgraded water (495) or wastewater (201) treatment certifications. The Small Water Systems certification, which combines water treatment and water distribution for operators of small systems, was available for the first time in the Fall 2001 cycle. Since then, a total of 129 operators have qualified for the Small Water System certification.

Complaints/Disciplinary Actions

The Board does not generally receive consumer complaints about specific operator behavior (although, in theory, it could receive such complaints). Most complaints are perceived in terms of facility performance, and the consumer directs the complaint to the Division for action. The Division determines whether the complaint relates to the operator's behavior or to problems with the facility itself. In cases related to operator behavior, the Division investigates the matter and then recommends a disciplinary action (or "no action") to the Board.

Complaints that are received by the Board are generally in the nature of procedural or administrative complaints. Issues range from appeals of decisions on the credit assigned to an in-service training course, decisions on the acceptance of activities as fulfilling experience requirements, or questioning the certification requirement as applicable in a specific case. These issues are generally handled by a formal appeal to the Board. Such appeals are conducted according to the procedures defined in the Colorado Administrative Procedure Act.

Consumer complaints, other than those regarding misconduct during or in qualifying for an examination, are ordinarily directed to the Division as part of a complaint against a facility. The Division makes a determination whether the operator's conduct was a contributing factor to the complaint. The Division makes a similar determination when a system fails to meet compliance or reporting standards with respect to requirements of drinking water or wastewater regulations. Substandard operator practices are often discovered during the inspection process. Insofar as possible these are dealt with at the inspection level through the development of a compliance letter in which the facility responds to deficiencies noted during inspection and develops a plan to address them.

When operator misconduct rises to the level that warrants Board action, the Division develops the evidence of the misconduct and, after due notice and opportunity to respond are given to the operator, a case is brought before the Board for formal action. If requested by the operator, a formal Board action is preceded by a hearing conducted according to the procedures of section 24-4-105, C.R.S. In practice, most cases are resolved by a consent agreement with the operator. These agreements may spell out changes in the operator's practices and procedures which, if followed, should remedy or resolve the matters at issue. A formal Discipline and Enforcement Policy document is currently in draft form for Board consideration.

The number and type of complaints for the preceding two fiscal years are depicted in Table 4. The Enforcement Group, within the Division's Compliance Assurance and Data Monitoring Unit, works with the Program on enforcement matters. Enforcement orders issued to water plant systems for monitoring, reporting or standards violations routinely address operator certification violations. The Division's Technical Services Unit (TSU) provides technical advice on facility classification to the Program. This unit also alerts the Program to potential and actual operational problems within systems and assists in the investigation and documentation of operator misconduct. TSU assists in the identification of problems with respect to operator issues. These issues are discussed in open forum at TSU general meetings and policy recommendations for Board consideration are developed. There is a close working relationship between the Program and the Division's Capacity Development Program. These two groups work together, in cooperation with outside groups, to provide assistance to systems that have financial and technical difficulties. The Capacity Development Program is developing the work plan for the anticipated Operator Training and Certification Expense Reimbursement Grant funding and will administer that grant.

**Table 4
Complaint Information**

Nature of Complaints*	FY 01-02	FY 02-03
Standard of Practice	2	2 (pending)
Data Falsification	1	1 1 (pending)
Practicing without a certification	0	1 (pending)
Misrepresentation of Certification	0	0
Misconduct During an Examination	0	0
Fraudulent Qualification for an Examination	1	0
Administrative Appeals	5	6
Total	9	10

* Jurisdiction over the first six items in the above table is granted in section 25-9-104(6), C.R.S.

Compliance and enforcement functions with respect to water and wastewater systems have been assigned to an Environmental Protection Specialist who reports directly to the manager of the Water Quality Protection Section within the Water Quality Protection Division of the Colorado Department of Public Health and Environment. This person is also responsible to make disciplinary recommendations to the Board with respect to individual operators and to provide policy-making assistance to the Board.

The Water and Wastewater Facility Operators Certification Board has the authority to discipline certified operators for failure to perform their duties, as set out by rule, or for misrepresentation or cheating in the process of qualifying for or taking a certification examination. The Board may revoke or suspend a certification or may issue a letter of reprimand in response to demonstrated misconduct. Disciplinary cases are investigated by the Division and referred to the Board with a recommendation for action. It is the policy of the Board to negotiate a consent agreement in lieu of full disciplinary action whenever possible. Two of the three cases brought before the Board to date have been settled by consent agreement. In one case, the operator agreed to forfeit his certification; in the other, the operator agreed to accept a letter of reprimand with conditions on his future operational procedures.

Table 5 depicts final agency actions for the preceding three fiscal years.

**Table 5
Final Agency Actions**

Type of Action	FY 00-01	FY 01-02	FY 02-03
<i>Board Disciplinary Action</i>			
Revocation	1	0	0
Surrender of License	0	1	0
Suspension	0	0	0
Suspension with Conditions	0	0	0
Letter of Reprimand	0	0	0
Letter of Reprimand with Conditions	0	0	1
Decision of "no action warranted"	2	0	0
Pending	0	0	3
<i>Division Enforcement Action</i>			
Letter of Authorization ("Grandfathering" for collection and distribution only)	153	111	program no longer available
Compliance Schedule			
Reached compliance	60	45	4
Still in Effect	3	6	95
Expired – formal action in process or pending	4	16	0
Compliance Advisory	0	12	4
Notice of Violation	0	0	0
Enforcement Order	0	0	0
Consent Agreement	0	0	1
Penalty Assessment	0	0	0

The Division is responsible for enforcement of the operator certification statute and regulations with respect to the obligation of facilities to place their operations under the supervision of a certified operator. Because the new statute and regulations expanded the number of facilities subject to these requirements and upgraded the classification of some facilities, the Division has established a period of "compliance emphasis." This period will last through 2003. During this time, the Division is issuing compliance schedules to otherwise compliant treatment systems that do not have appropriately certified operators. To date 85 percent of the compliance schedules issued have resulted in facility compliance upon expiration. The Board has implemented a "grandfathering" program for experienced collection and distribution operators who had not been part of the pre-2001 voluntary certification program in their field (Regulation 100).

Analysis and Recommendations

During the course of this sunset review, the Department of Regulatory Agencies (DORA) solicited input from a variety of sources. A number of significant issues were presented and considered, including:

- The potential loss of federal funding if requirements are not met; and,
- The role of subcontractors who in turn enter into subsidiary contracts.

Some of these issues are discussed in the recommendations that follow. Those that are not discussed, or not discussed in detail, were found to have fallen outside the scope of the statutory criteria that govern sunset reviews.

Recommendation 1 – Continue the Water and Wastewater Facility Operators Certification Board until 2013.

There are approximately 4,000 certified water and wastewater treatment, water distribution, and wastewater collection operators in Colorado. These operators serve more than 2,000 drinking water systems and a like number of wastewater systems, both domestic and industrial. Many operators, particularly those serving small communities, care for both water and wastewater systems and hold multiple certifications. In order for Colorado to receive its full allocation of federal funding under the federal Safe Drinking Water Act, certification for drinking water system operators is necessary. Certification for both water and wastewater system operators is mandated by Colorado statute (§ 25-9-101, *et seq.*, C.R.S.).

Water is a basic requirement for sustaining life. Having well-qualified operators of water and wastewater treatment systems is essential to maintaining an adequate and clean supply of water for domestic and commercial uses. A comprehensive and effective operator certification program helps to ensure that the strategic link between consumers and their water is properly maintained. This link—the operator—is strengthened by an oversight board that provides effective management and hence additional public protection.

Consequently, as an essential component of the existing regulatory scheme, the Water and Wastewater Operators' Certification Board should be continued until 2013. The Board performs effectively to certify, discipline, and provide guidance to certified water and wastewater operators, who in turn help to ensure healthy and safe water for every Coloradan.

Recommendation 2 – Reduce the size of the Board by four voting members and alter the Board's composition.

Statutory evaluation criteria direct DORA to assess "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."¹

¹ § 24-34-104(9)(b)(V), C.R.S.

The Water and Wastewater Operators' Certification Board is composed of thirteen members as discussed earlier in this report. In comparison to several other state regulatory boards, this is an unusually large size for such a body. In a national study of boards and commissions the average size of boards was found to be nine members. The study concluded that the interests considered by a board expand when there are more members, but may also slow the pace of decision making.² This is consistent with our own observations of the Board in action. The current Board seems to struggle to reach decisions, and at least on one occasion, delayed reaching a decision until the following meeting. Consequently, we recommend reducing the size of this Board to nine members to make it more efficient.

Moreover, in this instance, a reduction in size would not lead to a corresponding diminution in representation. The reason for this is that the current composition of the Board is redundant in certain respects. For example, section 25-9-103(2), C.R.S., mandates that "at least three of the members of the board shall represent private industry." In practice this is identical to section 25-9-103(1)(b.5), C.R.S., which calls for "a certified industrial wastewater treatment facility operator." Similarly, it is duplicative to have representation from both municipal officials (§ 25-9-103(1)(i), C.R.S.) and a representative from the Colorado Municipal League (§ 25-9-103(1)(c), C.R.S.). It is also not necessary to have a voting member on the Board from the Department of Public Health and Environment (§ 25-9-103(1)(d), C.R.S.). To preserve the existing level of active Department participation, however, this member should be made an *ex officio* Board member. A final set of provisions which creates overlapping representation occurs between the Colorado Rural Water Association (§ 25-9-103(1)(h), C.R.S.) and the requirement for a small systems operator (§ 25-9-103(1)(b.7), C.R.S.). The several possible permutations in Board membership from each pair we have delineated above necessitates that we leave the final selection to considerations that are best suited to the General Assembly.

Finally, to effect this recommendation, subsection (2) of section 25-9-103, C.R.S., should be amended to make it consistent with the corresponding provisions of the Water Quality Control Commission. By simply specifying that at least three members are to represent a variety of interests, including those of the public, will provide maximum flexibility to the Governor to appoint Board members.

In conclusion, this recommendation can be effected without a significant loss in relevant representation while increasing its efficiency by reducing the number of members from 13 to nine.

² Mitchell, Jerry (1997). "Representation in Government Boards and Commissions". *Public Administration Review*, Vol .57, no. 2, p. 165.

Recommendation 3 – Institute term limits for Board members.

Term limits have become the standard practice in Colorado politics. The Governor is limited to two terms, as well as members of the General Assembly. In addition, nearly all of the members of the professional licensing boards in DORA are subject to term limits. It is also in keeping with effective public protection to institute term limits for members of the Water and Wastewater Facility Operators Certification Board. Arguments for term limits are generally well known. Proponents of term limits argue that they ensure that new people are given the opportunity to serve. They also maintain that term limits help to reduce the likelihood of boards being dominated by a single, long-serving member.

Opponents of term limits often argue that term limits help to reduce institutional memory given that turnover removes long-serving members who possess institutional knowledge and experience. The arguments against term limits, however, are far less convincing when it comes to service on regulatory boards. Agency staff provide the necessary institutional memory, and given the talents that prospective board members would bring, new people should be afforded the opportunity to serve.

We recommend therefore that term limits be adopted so as to permit each Board member to serve a maximum of two consecutive four-year terms, which is consistent with many other state regulatory boards. This will encourage greater representation by means of member rotation while preserving the expertise necessary to regulate water and wastewater operators in Colorado.

Recommendation 4 – Amend the duties of the Board to include the setting and coordination of examination schedules, and include the elements of this provision as performance items in subsequent contracts.

Section 25-9-104(1)(a), C.R.S., sets out the duties of the Water and Wastewater Facility Operators Certification Board. More specifically, the statute provides that “the board may adopt such rules in accordance with article 4 of title 24, C.R.S., as are necessary to ensure the proper administration of the program and shall enter into contracts with any nonprofit corporation selected or appointed by the board to ensure that each nonprofit corporation receives applications and fees, conducts such examinations as may be directed by the board, records the results thereof, notifies applicants of results, recommends issuance of certificates, conducts failed exam reviews, and prepares and distributes an annual report.”

Certification examinations are offered in two separate exam cycles each year. Separate schedules apply for (1) treatment plant operator certification examinations and (2) distribution and collection system operator certification examinations.

For treatment plant operator certification exams two examination cycles are offered each year for treatment plant operator certification examinations, under the administration of Colorado Environmental Certification and Testing, Inc. (CECTI). The “spring” cycle includes examinations offered on several dates from mid-January through March. The “fall” cycle includes examinations offered on several dates from August through mid-November. The locations of the examinations vary for the individual dates offered. Although examinations for all certification levels (Water, Wastewater, and Industrial, levels “A” through “D;” Small Water and Wastewater; and Transient Non-Community) are offered during each exam cycle, all levels are not offered on each of the exam dates.

For distribution and collection system operator certification exams two examination cycles are offered each year for water distribution and wastewater collection system operator certification examinations, under the administration of the Colorado Distribution and Collection Systems Certification Council (the Certification Council). For each cycle, examinations are offered at multiple locations, but all on the same date. The spring exam date is typically in mid-May. The fall exam date is typically in mid-November. On each date, examinations are offered for all water distribution and wastewater collection certification levels (1 through 3) and for Small Water and Wastewater System certifications.

Clearly, the current examination schedule is overly complicated given that a number of individual operators hold multiple certifications. Furthermore, some facility managers may find it difficult to simultaneously coordinate their staffing needs with the objective of accurately assessing the competencies of their operators. Given that the primary objective of the program is to ensure compliance with the law, the existing complexity in the examination process is not conducive to ease of compliance on the part of operators and facility managers. Consequently, section 25-9-104 (1)(a), C.R.S., should be amended to include “sets and coordinates examination schedules.” In addition, the Board should negotiate with each of its primary contractors the actual examination schedules for the period in which the next contract will be in force. In doing so, the Board’s top priority should be the best possible examination schedules that benefit operators, including those seeking multiple certifications, as well as those of facility managers and the contractors themselves. These performance items should be enumerated in the next set of contracts.

Recommendation 5 – Amend section 25-9-104(1)(a), C.R.S., to allow contractors to provide “exam feedback” instead of “failed exam reviews.”

One of the provisions in section 25-9-104(1)(a), C.R.S., specifies that a nonprofit contractor implementing the Operators Certification Program is to conduct “failed exam reviews”. Previously, when operator certification examinations were essay-type exams developed and graded by committees of Colorado operators, an “exam review session” was scheduled after each exam cycle to allow operators to review the grading of their responses. Now that the program uses standardized, multiple-choice exams developed by the Association of Boards of Certification (ABC), review of individual exams and answer sheets is not allowed.

The “failed exam review requirement” is currently implemented by providing individual analyses of how an operator performed in the various subject matter areas tested on an exam. This feedback constitutes of a statistical breakdown in approximately 20 subject areas. Operators and prospective operators receive this feedback regardless of whether they pass or fail a particular exam. In addition, those examinees who fail receive a list of suggested reading materials to improve their future performance.

In short, the exam review provision is outdated. Consequently, this provision should be made more general in nature so as to provide positive feedback regarding exam performance to operators failing certification examinations.

Recommendation 6 – Revise the next set of contracts with all prospective contractors to include a clause that selection of subcontractors is contingent upon the approval of the Board.

The Water and Wastewater Operators' Certification Board in accordance with section 25-9-104(1)(a), C.R.S., is empowered to select one or more nonprofit corporations to carry out the administration of the program. On the 26th of November 2002, the Board entered into contracts with Colorado Environmental Certification and Testing, Inc. (CECTI) and Colorado Water Distribution and Wastewater Collection Systems Certification Council, Inc. to administer, among other things, receiving and evaluating applications for operator certification and renewal of certification; scheduling and administering two certification examination cycles each year; issuing certificates; maintaining records of the Operator Certification Program; evaluating requests for training unit approval and assigning training units; collecting and distributing application, examination and other program fees; and, maintaining an office for contact with operators and facility owners. Both of these contracts expire on June 30, 2004.

In turn these contractors are empowered to enter into subsidiary agreements. According to section 25-9-104(1)(a), C.R.S.:

with the permission of the board, a nonprofit corporation contracted with 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. The board shall be responsible for and shall retain the final authority for all actions and decisions carried out on behalf of the board by any such nonprofit corporation, educational institution, or for-profit corporation.

Although the Board retains ultimate responsibility, in practice, subcontractors are not subject to extensive oversight by the Board. For example, CECTI has contracted with Total Events and Management Services (TEAMS) to meet its contractual obligation of maintaining an office for contact with operators and facility owners. The contractor, however, did not seek approval from the Board in selecting this particular subcontractor. It is also true, however, that the Board did not request to review the specific financial arrangements or contracts with these subcontractors. Clearly, it is unreasonable for the Board to be responsible for program outputs without having any oversight role regarding inputs.

We contacted a senior official at the State Purchasing Office who informed us that the best way to increase the accountability of agents acting on behalf of the Board would be to include a clause to this effect in the contract that obtains between the Board and its primary contractors. We recommend therefore that upon the expiration of the two relevant contracts on or about June 30, 2004, that the Board draft new contracts to include a provision that a contractor's selection of any subcontractors is contingent upon the Board's approval.

Appendix A – Sunset Statutory Evaluation Criteria

- (I) 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;
- (II) 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;
- (III) 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;
- (IV) Whether an analysis of agency operations indicates that the agency performs its statutory duties efficiently and effectively;
- (V) 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;
- (VI) The economic impact of regulation and, if national economic information is not available, whether the agency stimulates or restricts competition;
- (VII) 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;
- (VIII) Whether the scope of practice of the regulated occupation contributes to the optimum utilization of personnel and whether entry requirements encourage affirmative action;
- (IX) Whether administrative and statutory changes are necessary to improve agency operations to enhance the public interest.