



(Board of Waterworks and Waste Systems Operators Report) September 2011

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Prepared for:

Senate Education, Health, and Environmental Affairs Committee

House Environmental Matters Committee

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September 9, 2011



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EXECUTIVE SUMMARY

Statutory Authority and Scope

State Government Article §8-403 enacted in 2010 (see Appendix B for full text) extended the Sunset Review deadline of the Board of Waterworks and Waste Systems Operators until 2020, and under the authority of State Government Article §2-1246 requires the Maryland Department of the Environment (MDE) and the Board to provide a report on the status of nonstatutory recommendations contained in the Sunset Review: Evaluation of the State Board of Waterworks and Waste Systems Operators conducted by the Department of Legislative Services (2009). This report is intended to fulfill that statutory requirement.

Organization of the Report

Section One includes an overview of the Board of Waterworks and Waste Systems Operators purpose and activities. Section Two presents program-specific information to the Legislature as required by House 487 (2010) in response to the Department of Legislative Services – Sunset Review Report (2009). The supporting materials, including Sunset Review Report –Executive Summary (2009); House Bill 487 (2010); and MDE Recommendations for Changes to the Board of Waterworks and Waste Systems Statutory Authority are in Section Three, the Appendices.

BOARD OF WATERWORKS AND WASTE SYSTEMS OPERATORS

Overview:

The purpose of the Board of Waterworks and Waste Systems Operators is to ensure that operators of water treatment and wastewater treatment systems in the State of Maryland meet minimum professional standards. The citizens of Maryland require safe, reliable sources of water for drinking, washing, fishing and other recreational uses. State and federal standards require that water provided by public water systems be treated before it is distributed for use. In order to protect the resources of Maryland, and the environment, the wastewater operators must be trained to operate and maintain the municipal and industrial wastewater facilities located throughout the State.

In 1957, a law was passed to create the State Board, and to establish the authority for regulating water and wastewater superintendents. In 1981, the law amended the program to prohibit any person from working as an operator without the proper certification from the Board.

The Safe Drinking Water Act Reauthorization of 1996 required States to develop, implement and enforce operator certification regulations. Federal guidelines were published in the February 5, 1999 Federal Register in accordance with the guidance provided by the Environmental Protection Agency (EPA) headquarters. In response to the federal guidelines, the Code of Maryland Regulations for the Operator Certification Program were revised in January, 2001. The Environmental Protection Agency (EPA) approved Maryland's Operator Certification Program for public water systems on July 13, 2001.

The board oversees certification of operators and superintendents for five categories of facilities – two categories of waterworks and three categories of waste systems. Within these five broad categories are 24 classes of facilities, each with a unique certificate defined by process technology. In total, the board oversees about 3,600 certificate holders who hold approximately 7,500 certificates – with many individuals certified in multiple facility treatment technologies. Of these 7,500 certificates, about 36% are held by waterworks operators and superintendents, and about 64% by waste systems operators and superintendents. All certificates are renewable for three-year periods.

The Board has the responsibility to:

1. Establish the education, experience and examination standards that applicants must satisfy to be certified by the Board;
2. Issue and renew operator and superintendent certifications in accordance with these standards;
3. Prepare and revise certification regulations and Board policies and guidelines; and investigate allegations of misconduct by certificate holders and to take enforcement action against a certificate holder who is found to have violated the provisions of the certification regulations. The enforcement action that could be taken includes issuing a written reprimand, or suspending or revoking that individual's certificate.

The State Board is evaluated periodically under the Sunset Review process to determine if it is critical to the mission of the State. In 2010, the Board was approved until October, 2020.

LEGISLATIVE REPORT

The report to the legislature is organized to address the ten areas that were identified in the 2010 legislation (See Appendix B- House Bill 487).

Database Development Options for Enforcement Activities

Funding for database development is not available.

Overview

The Board and MDE share enforcement responsibilities related to water and wastewater operators. The Board oversees enforcement activities related to the individual operator, and MDE oversees enforcement activities related to the treatment facilities.

MDE utilizes various ORACLE-based systems for managing the enforcement activities of the programs such as the Water Supply Program (PDWIS), Compliance Program (TEMPO), and Wastewater Permits Program (TEMPO). The Water Supply Program's database associates individual operators with their employment at water treatment facilities. Currently, there is not a similar computer-based system for tracking wastewater operator employment.

The TEMPO database is an environmental management system that is used by multiple states nationwide. By 2014, a software system is expected to be developed for the State of Indiana for managing their operator certification program. Maryland plans to evaluate the updated software when it is available. Alternative plans will also be considered as funding is made available for this project.

2009 DLS Recommendation 3: MDE should develop a database for waste systems enforcement personnel with functionality similar to that possessed by officials in the Water Supply Program.

2009 DLS Recommendation 4: MDE should ensure that its existing Oracle database, as well as any future database developed for tracking certified operators at waste systems, possesses the capability to also track the presence of superintendents among waterworks and waste systems.

MDE Action Plan

The Board and MDE concur with the recommendations however limited funding, and the need to focus on program mandates do not allow these items to be addressed at this time.

Current enforcement responsibilities limit staff availability for increased enforcement oversight of Board certification status.

Funding is not available for Recommendations 3 and 4. If funding is available, the Board and MDE will review the recommendation to develop a database for waste systems enforcement personnel and for tracking of certified operators at waste systems, for tracking the presence of superintendents among waterworks and waste systems, and determine how it should be prioritized with other outstanding database development issues. This improvement is not required by MDE under existing federal grant commitments.

Collection of information for water and wastewater facilities will create additional responsibilities for the Enforcement Division at MDE. It should be noted that minor wastewater dischargers may only be inspected once during a permit cycle (once in 5 years). Current staff resources are not available to monitor every facility one or more times a year.

Statutory Authority Related to the Certification of Superintendents

Overview

Since 1957, the Maryland Annotated Code, Environment Article has required that a water or wastewater works be under the supervision of a superintendent.

"Superintendent" means an individual who is designated by any employing or appointing person, county, municipality, sanitary district, or this State as the individual in responsible charge of a waterworks, wastewater works, or industrial wastewater works.

Maryland's certification program for combined Superintendents and Operators is unique in the Region.

Current authority under Maryland Annotated Code requires a water, wastewater, and industrial wastewater facility to employ a superintendent. Prior to 1982, only superintendents of waterworks and waste systems were required to be certified, and classifications of facilities were different (Class A,B,C,D). After 1981, Maryland required water and wastewater works to employ superintendents and operators (a "two-tiered program"). Most States do not have a "two-tiered program" for Operators and Superintendents. For the region, Maryland's program for superintendents is unique when compared to Pennsylvania, Delaware, West Virginia, and Virginia.

MDE supports an amendment to the statutory authority for superintendents.

The regulations (COMAR 26.06.01) do not specifically require a facility to employ a superintendent. However, the regulations do distinguish between the responsibilities of an operator and a superintendent. Other MDE regulations that cite the Board's regulations for operators include COMAR 26.04.01 which is enforced by the Water Supply Program. In application, MDE implements the water operator certification as specified under the Safe Drinking Water Act and regulations. The federal requirement is for all community and nontransient noncommunity water systems to have a certified operator. The Safe Drinking Water Act does not require that a water system employ a "superintendent".

In 2010, the Board surveyed MDE programs on the implementation of the Superintendent requirement under the regulations, and the consensus was that the statutory authority should be updated so that the Maryland requirements are not more stringent than the neighboring States, and to simplify the requirements for small regulated facilities.

2009 DLS Recommendation 1: Statute should be amended to clarify that MDE is the entity responsible for enforcement of the requirements that facilities have board-certified operators and are under the responsible charge of a certified superintendent.

2009 DLS Recommendation 5: The board, in conjunction with MDE, should report to the Senate Education, Health, and Environmental Affairs Committee and the House Environmental Matters Committee on or before October 1, 2011, regarding whether to amend statute to exempt facilities of a certain size or type from the requirement to employ a certified superintendent.

MDE Action Plan

The Board of Waterworks and Waste Systems Operators and MDE recommend that Environment Articles of the Annotated Code §12-402 and §12-501 be amended to provide relief to small treatment facilities, and to simplify the certification process. Appendix C includes the proposed amendments submitted by the Board and MDE to the Committees.

Use of Circuit Rider Operators and System Compliance

Circuit riders are Board-certified operators who are employed by more than one facility. Small water and wastewater facilities do not have the resources to employ full-time operators.

Adequate resources are not available for targeted monitoring of circuit riders

Circuit Rider Experience Credit

MDE will propose new regulations in FY2012 to adopt the Board's circuit rider experience crediting policy.

Overview

The Board and MDE do not have a mechanism for tracking circuit rider compliance, specifically. Typically, an operator who is employed as a circuit rider is fully certified by the Board. Full certification status typically means a minimum of three years work experience for the most complex treatment facilities.

Circuit riders are fully-certified operators; therefore, the use of circuit riders are not expected to have a deleterious impact on the water quality at the water or wastewater facility that employs them.

2009 DLS Recommendation 7: By tracking the employing facility as part of the certification process, the board should monitor the prevalence of circuit riders in Maryland to ensure that the promotion of circuit riders results in certified operator compliance at previously noncompliant facilities. The board should also monitor whether facilities that had been employing full-time certified operators are switching to the use of circuit riders and whether such a practice poses a risk to water quality.

MDE Action Plan

MDE does not concur with the recommendation that the Board should track the employment status of individual operators who are circuit riders, and their employers. MDE and the Board do not believe there are adequate resources to implement the recommendation that it monitor the prevalence of circuit riders in Maryland as stated in Recommendation 7.

Overview

2009 DLS Recommendation 8: The board should ensure that regulations establishing its circuit rider experience crediting policy are adopted promptly.

MDE Action Plan

The Board agrees with Recommendation 8, and has incorporated this change in the regulations that will be proposed in FY2012.

Operator Workforce Conditions

Nationwide, the workforce is aging. This is also true of water and wastewater facility operators in Maryland.

Overview

Circuit riders who are employed by multiple water and wastewater facilities are important to meeting the workforce demand of the small utilities statewide. Some circuit riders may be employed full-time by a larger utility, and work part-time at a small utility.

The U.S. Department of Labor reports that by 2015, 19.5% of the workforce will be over 55 years of age. Nationwide, concerns have been raised about the aging workforce. This is also an issue for operators who, by the nature of their work, are required to meet both physical and mental demands related to the operation and maintenance of treatment facilities.

In 2008, the Board of Waterworks and Waste System Operators distributed a survey. Between 5 and 10 percent of the total number of certified operators participated in the survey. The following information summarizes the responses that were received about work conditions.

Survey respondents included operators, managers, owners, and consultants, and:

- associated themselves with various utility sizes: Greater than 10,000 persons (36.0 %), 500 to 10,000 (32.3%), and fewer than 500 (25.8%).
 - associated themselves with water facilities (66.5%) and wastewater facilities (28.2%)
 - employed full-time as an operator (73.2%), or part-time (26.8%)
 - years of experience as an operator: over 20 years (37.3%), 11-20 years (27.4%), 0-10 years (35.3%).
 - Expected to retire in next 5 years (21.2%).
- Other observations related to work conditions:
- Primary reasons for leaving: retirement (57.4%), better pay (26.6%), other employment (6.7%).
 - 80.9% responded that they receive adequate support in their effort to ensure the quality of system operations.

New federal initiative planned by EPA to address growing workforce shortage.

On August 8, 2011, the U.S. Environmental Protection Agency (EPA) and the U.S. Department of Agriculture (USDA) announced a national partnership to protect Americans' health by improving rural drinking water and wastewater systems. Nationwide, small water and sewage treatment facilities with limited funding and resources face challenges due to rising costs and aging equipment and pipes. Today's agreement will send federal resources to support communities that need assistance and promote job training to help put people to work while addressing the growing workforce shortage in the water industry.

2009 DLS Recommendation 6: The board should encourage the development of circuit riders to address noncompliance with operator certification requirements and to assist waterworks and waste systems with difficult and worsening labor market conditions. The board's new web site should contain links to information for current circuit riders as well as recruiters, trade schools, and the general workforce about the business opportunities presented by waterworks and waste systems without certified operators.

Promoting the use of circuit riders may be a conflict of interest for MDE and the Board.

MDE Action Plan

The Board feels there are adequate opportunities for small systems to employ certified operators. There are a number of private companies that provide circuit riders to water and wastewater systems in this area, including Maryland Environmental Service. It would be a conflict of interest for the Board or MDE to promote circuit riders on an official basis as the regulator of public water systems and waste systems.

Administrative Database Upgrade Options

Overview

The Board of Waterworks and Waste Systems Operators utilize a FOXPRO-based database for administrative and financial recordkeeping activities performed by the Board staff. The current system functions to meet the minimum needs of the program staff, but the age of the software and the inability to upgrade the forms indicate that the system will need to be replaced or upgraded in the next decade.

MDE maintains a centralized database (TEMPO) that utilizes ORACLE software. In 2006, the programmatic needs of the Board were evaluated, and it was determined

that the TEMPO database was not compatible. The TEMPO database is an environmental management system that is used by multiple states. By 2014, a software system is expected to be developed for the State of Indiana for managing their operator certification program. Maryland plans to evaluate the updated software when it is available. Alternative plans will also be considered as funding is made available for this project.

2009 DLS Recommendation 9: MDE should upgrade the board's administrative database to a modern system that allows for the efficient tracking of both facilities and personnel by certain attributes including the presence of a certified operator or superintendent, the date a certificate is to lapse, and contact information for both the operator and system owner. The upgraded administrative database should be compatible with both the board's upgraded web site and MDE enforcement databases such as the existing Oracle database used by the Water Supply Program and any new database to be used by waste system enforcement personnel, as recommended in this report.

2009 DLS Recommendation 10: The board should ensure that its web site upgrade allows the site to be an interactive, "one-stop shop" for operator certification information. The web site should include resources for current operators, prospective operators, facility owners, and the public.

Funding for database development is not available.

MDE Action Plan

Funding is not available for Recommendations 9 and 10. The Board and MDE will review the recommendations that MDE should upgrade the Board's administrative database to a modern system that allows for the efficient tracking of both facilities and personnel by certain attributes including the presence of a certified operator or Superintendent, and determine how it should be prioritized with other outstanding database development issues. This is not required by MDE under existing federal grant commitments.

The Board coordinates web site development through the MDE Information Technology staff. Decisions related to website development and on-line application submittals will be evaluated by the Department, and implemented as resources become available.

Penalty Authority

MDE enforcement authority is utilized as appropriate to improve compliance by water and wastewater facilities.

Overview

MDE takes enforcement action against water and wastewater facilities in order to improve compliance and for punitive purposes. The penalty authority exists on three levels: administrative, civil and criminal for most programs.

The penalty authority for the Board is strictly a criminal penalty authority. Criminal penalty authority is investigated by the MDE – Environmental Crimes Unit, and action is taken as appropriate. As a criminal penalty, this authority would be used for those persons who are recalcitrant, detrimental to the health or safety of the public, or detrimental to the quality of the environment.

While the criminal authority is important to have, other penalty authority in the Department may resolve the matter satisfactorily, so that Environment Article 12-504 may not be cited.

2009 DLS Recommendation 11: MDE should begin using the penalty authority it has long possessed under § 12-504 of the Environment Article. Once existing penalty authority is being used, MDE should evaluate the necessity of changes to that authority.

MDE Action Plan

MDE and the Board have advised the appropriate programs of the criminal penalty related to COMAR 26.06.01. No statutory changes are recommended at this time.

Pre-Examination Training Opportunities for Operators

Overview

MDE and the Board recognize the importance of maintaining training opportunities for the operators. In addition, this training should be accessible for operators throughout the State.

The Board has a standing committee that reviews all training opportunities for operators. The Committee recommends approval or disapproval for training, and the Board will vote on the final approval. The Board does not have funding for training.

MDE works with various organizations to develop training for operators. MDE receives general funds that are used to contract training and technical assistance activities with the Maryland Center for Environmental Training, Charles County. The funds from MDE are used to develop classes that offered throughout the State. In addition, the community colleges charge the operators additional fees for the training and registration. In addition, organizations such as DelTech, Chesapeake Section American Waterworks Association, and Maryland Rural Water Association to provide a wide range of training classes for eligible operators. Training is developed in coordination with MDE and water and wastewater organizations on an ongoing basis.

Training is critical to maintaining knowledgeable operators; a variety of training opportunities are approved by the Board to meet operator's training needs.

2009 DLS Recommendation 12: As the week-long short course offered by the Water and Waste Operators Association (WWOA) has historically resulted in higher examination pass rates, the board should continue to support this and similar training opportunities.

MDE Action Plan

The Board does not have staff or funding to offer concentrated training opportunities such as the training identified in Recommendation 12. MDE and the Board recognize that training is critical to maintaining knowledgeable operators; however, the ability of operators to take a variety of training is also important for all operators who are required to meet continuing education requirements.

Computer-Based Examinations Availability

Overview

According to the 2009 DLS Report, the administration of paper-based examinations is becoming an outdated testing format and may be a significant factor related to low pass rates. Nationally, there is a trend toward upgrading to computer-based testing for operator certification. In 2009,

Computer-based examinations are available in Maryland for all operator classifications.

Fees are collected by the Board for issuance of operator certificates and offering examinations for certification. The current fees were adopted by the Board in the mid-1990s.

The Board certifies over 3500 water and wastewater operators in various categories. Similar to an individual's driver's license, the cost of certification is primarily an expense that the individual must pay.

During the Sunset Review process, it was noted that until recently, the Board fees had covered the expenses related to administration of the Board activities. In the FY2012, the Board contacted its examination developer and a computer-based testing vendor and initiated a process for administration of computer-based examinations.

Although paper examinations are still offered to those applicants who are more comfortable with this format, the Board recognizes that a quickly growing majority of test takers each year seems to express a preference for computer-based testing. There would be additional costs for applicants for computer-based testing. The computer-based testing facility charges between \$42 and \$59 for an electronic exam, depending on the amount of time allotted for the examination. It would be the responsibility of the applicant to pay this fee to the vendor in addition to the examination fee due to the Board. Currently, there is one location in Glen Burnie and one in the District of Columbia that would be available for electronic testing.

2009 DLS Recommendation 13: The board should continue its current efforts to ensure that computer-based examinations are available beginning as early as January 2010. In addition to phasing out paper-based examinations, the board should also consider additional computer-based testing facilities, especially at locations near Western Maryland and the Eastern Shore.

MDE Action Plan

As of October 2010, all examinations may be taken at computer-based testing facilities. Only two locations are currently available however the Board is working with the contractor to open more locations. Outreach materials are being developed to notify operators of the availability of computer-based training.

Sufficient Fee Revenue for the General Fund to cover Board Expenses

MDE will propose new regulations in FY2012 to increase certification and examinations fees.

Overview

Board will propose a \$10 increase to the certification fees and examination fees.

2009 DLS Recommendation 14: The board should continue its efforts to adjust its fees and should monitor whether new factors such as the introduction of computer-based testing or an increase in the number of certified operators at small facilities require further adjustments.

MDE Action Plan

The Board and MDE routinely monitor its fees and are open to adjusting the fees as needed. The Board and MDE agree with Recommendation 8, and have incorporated this change in the regulations that will be proposed in FY2012.

APPENDIX A

Sunset Review: Evaluation of the State Board of Waterworks and Waste Systems Operators

Department of Legislative Services Office of Policy Analysis

Annapolis, Maryland

October 2009 (pp. vii –xi) (Excerpt)

Executive Summary

Pursuant to the Maryland Program Evaluation Act, the Department of Legislative Services (DLS) has evaluated the State Board of Waterworks and Waste Systems Operators, the State entity charged with regulating the practice of water and wastewater treatment in Maryland. The 15 recommendations in this evaluation are summarized below.

Currently, statute governing the board does not specify who is responsible for ensuring that waterworks and waste systems employ certified operators and are under the responsible charge of a certified superintendent. However, officials from both the Maryland Department of the Environment (MDE) and the board agree that MDE is the entity most suitable to handle this responsibility.

Recommendation 1: Statute should be amended to clarify that MDE is the entity responsible for enforcement of the requirements that facilities have board-certified operators and are under the responsible charge of a certified superintendent.

One of the five types of certificates authorized in statute can no longer be issued since no one can qualify for a new certificate and the last renewal certificate expired a few years ago. The limited certificate was only authorized to be issued by the board following submission of an application before July 1, 1982.

Recommendation 2: Statute should be amended to repeal, as obsolete, provisions related to the issuance of a limited certificate.

Due to federal drinking water regulations, MDE and the board have developed a substantially greater ability to track the presence of certified operators at waterworks as compared to waste systems. MDE enforcement personnel should have the ability to identify all systems without certified operators.

Recommendation 3: MDE should develop a database for waste systems enforcement personnel with functionality similar to that possessed by officials in the Water Supply Program. This can be accomplished by expanding the license agreement with Oracle, procuring a new low-cost database, or utilizing existing information technology resources at MDE to develop a simple database. Any waste systems database that is created should be able to share data with the board's administrative database to facilitate greater communication between the board and MDE enforcement.

Just as federal law has caused MDE to develop greater resources for oversight of waterworks as compared with waste systems, the ability of MDE and the board to track the certification of operators is much greater than for superintendents. This is because the requirement that waterworks and waste systems be under the responsible

charge of a superintendent comes from State law, which is decades older than the federal requirement pertaining only to operators.

Recommendation 4: MDE should ensure that its existing Oracle database, as well as any future database developed for tracking certified operators at waste systems, possesses the capability to also track the presence of superintendents among waterworks and waste systems.

Although it is advisable that MDE and the board develop the ability to track compliance with the superintendent requirements in State law, it may be neither necessary nor practical to continue requiring *all* waterworks and waste systems of all sizes and types to employ a superintendent. It is unclear whether it is the nature of the industry or the role of superintendents within the industry that has changed significantly since the 1950s. However, it is clear that, since the board's enabling statute was enacted, the industry the board regulates has been allowed to evolve in the absence of superintendents for a large share of facilities.

Recommendation 5: The board, in conjunction with MDE, should report to the Senate Education, Health, and Environmental Affairs Committee and the House Environmental Matters Committee on or before October 1, 2011, regarding whether to amend statute to exempt facilities of a certain size or type from the requirement to employ a certified superintendent.

One option for improving compliance with the operator certification requirement is promotion of the use of "circuit riders." Circuit riders are certified operators employed on a contractual basis by multiple waterworks or waste systems. Many states

promote the use of circuit riders to ensure that smaller facilities that would otherwise not be financially capable of employing a full-time certified operator are able to afford professional oversight as required by law.

Recommendation 6: The board should encourage the development of circuit riders to address noncompliance with operator certification requirements and to assist waterworks and waste systems with difficult and worsening labor market conditions. The board's new web site should contain links to information for current circuit riders as well as recruiters, trade schools, and the general workforce about the business opportunities presented by waterworks and waste systems without certified operators.

Although circuit riders may prove to be very useful in ensuring that waterworks and waste systems employ certified operators, it would be counterproductive if many facilities were to opt to contract with circuit riders rather than employ full-time operators. Safety of Maryland's water is the board's primary concern, and the economic advantages of circuit riders should be used to bring formerly noncompliant facilities into compliance rather than reducing the presence of certified operators at larger facilities as a cost-reduction measure.

Recommendation 7: By tracking the employing facility as part of the certification process, the board should monitor the prevalence of circuit riders in Maryland to ensure that the promotion of circuit riders results in certified operator compliance at previously noncompliant facilities. The board should also monitor whether facilities that had been employing full-time certified operators are switching to the use of circuit riders

and whether such a practice poses a risk to water quality.

One factor that may impede the growth and availability of circuit riders in Maryland is lack of a clear policy from the board on how experience will be credited for individuals working at multiple facilities. The board has employed a reasonable internal policy regarding granting experience credits for circuit riders but has not yet implemented plans to adopt this policy into regulations.

Recommendation 8: The board should ensure that regulations establishing its circuit rider experience crediting policy are adopted promptly.

The age and limited functionality of the board's current administrative database hinder its ability to track and effectively communicate with operators and superintendents, applicants, system owners, and MDE Water Management Administration officials. An upgraded database would provide the oversight and transparency needed to ensure that facilities have the necessary superintendents and operators and would afford board staff more time to monitor and process certification information.

Recommendation 9: MDE should upgrade the board's administrative database to a modern system that allows for the efficient tracking of both facilities and personnel by certain attributes including the presence of a certified operator or superintendent, the date a certificate is to lapse, and contact information for both the operator and system owner. The upgraded administrative database should be compatible with both the board's upgraded web site and MDE enforcement

databases such as the existing Oracle database used by the Water Supply Program and any new database to be used by waste system enforcement personnel, as recommended in this report.

MDE has indicated that the board's web site is scheduled to be upgraded. An upgraded web site can be a resource for recruiting new operators to the field. It can also be a resource for facility owners to provide information concerning facility requirements. Additionally, the new site is an opportunity to provide the public with information regarding the management of water and wastewater in the State.

Recommendation 10: The board should ensure that its web site upgrade allows the site to be an interactive, "one-stop shop" for operator certification information. The web site should include resources for current operators, prospective operators, facility owners, and the public.

Ensuring full compliance with the operator certification requirement also requires effective regulatory enforcement. Section 12-504 of the Environment Article states that any violation of Title 12 is a misdemeanor subject to a fine of \$25 per day. This \$25 fine has not been used. Merely informing waterworks and waste systems owners of the penalty for noncompliance is likely to spur an increase in compliance, especially if information about the low-cost service of circuit riders is made available to the owners.

Recommendation 11: MDE should begin using the penalty authority it has long possessed under § 12-504 of the Environment Article. Once existing penalty authority is being used, MDE should evaluate the necessity of changes

to that authority.

Examination pass rates in Maryland have averaged 35% over the past five years with no discernible trend indicating either an improvement or decline in this rate. One of the most successful efforts to improve examination performance has been the promotion of a week-long training course offered in a collegiate setting for examination candidates. Historically, the pass rates following this intensive short course have been above the overall average.

Recommendation 12: As the week-long short course offered by the Water and Waste Operators Association has historically resulted in higher examination pass rates, the board should continue to support this and similar training opportunities.

The administration of paper-based examinations is becoming an outdated testing format and may be a significant factor related to low pass rates. By currently offering only a limited number of paper-based examinations on certain dates throughout the year, applicants have found it somewhat difficult to schedule an examination at a time that is both convenient and follows a period of adequate study. Further under computer-based testing, the board staff person that currently spends significant time proctoring paper-based examinations can spend more time on issues related to operator outreach, training, test preparation, and other matters affecting the board.

Recommendation 13: The board should continue its current efforts to ensure that computer-based examinations are available beginning as early as January 2010. In addition to phasing out paper-based examinations, the board should

also consider additional computer-based testing facilities, especially at locations near Western Maryland and the Eastern Shore.

The board faces a small but persistent gap between revenues and expenditures, as well as an expected decrease in future examination fee revenues assuming examination pass rates increase under computer-based testing. A \$10 increase in the certificate renewal fee could generate an additional \$75,000 over a three-year period. This amount should be sufficient to cover 100% of board expenditures each year for the next several years and account for any reduction in revenue resulting from the introduction of computer-based testing.

Recommendation 14: The board should continue its efforts to adjust its fees and should monitor whether new factors such as the introduction of computer-based testing or an increase in the number of certified operators at small facilities require further adjustments.

There is a continuing need for effective oversight of those responsible for delivering drinking water and treating wastewater in Maryland. Further, federal regulations require a program for operator certification at waterworks. And despite a number of issues facing the board as discussed in this evaluation, the board has shown a high level of efficiency and professionalism in considering these issues and has been proactive in response to the findings of the preliminary sunset evaluation.

Recommendation 15: Statute should be amended to extend the termination date of the State Board of Waterworks and Waste Systems Operators by 10 years to July 1, 2021. In addition, the board, in conjunction with MDE, should report to

**the Senate Education Health, and
Environmental Affairs Committee and
the House Environmental Matters
Committee on or before October 1, 2011,
regarding the implementation status of
the nonstatutory recommendations
contained in this report.**

APPENDIX B

HOUSE BILL 487 (2007 Replacement Volume and 2009 Supplement)

BY repealing and reenacting, without amendments,

Article – State Government

Section 8–403(a)

Annotated Code of Maryland

(2009 Replacement Volume)

BY repealing and reenacting, with amendments,

Article – State Government

Section 8–403(b)(67)

Annotated Code of Maryland

(2009 Replacement Volume)

SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND, That the Laws of Maryland read as follows:

Article – Environment

12–101.

(c) (2) “Certificate” includes:

(i) A certificate; **AND**

(ii) A temporary certificate, as limited by § 12–305 of this title[; and

(iii) A limited certificate, as limited by § 12–305 of this title].

12–202.

(a) (2) With the advice and consent of the Senate, the Governor shall appoint 8 members who represent one or more of the following:

(i) Municipal government;

(ii) County government;

(iii) A sanitary or a metropolitan commission;

(iv) Waterworks supervision;

(v) Wastewater works or industrial wastewater works supervision;

(vi) Agriculture;

(vii) Industrial wastewater works superintendents; and

(viii) The [Department of Natural Resources] **MARYLAND ENVIRONMENTAL SERVICE.**

12–305.

[(c) The Board may issue a limited certification to any uncertified operator or industrial operator who:

(1) On or before July 1, 1982, submits an application to the Board on the form that the Board requires;

(2) Is employed in a waterworks, wastewater works, or industrial wastewater works; and

(3) Complies with any applicable rule or regulation adopted under this title for this purpose.]

12–308.

(a) Subject to the hearing provisions of § 12-309 of this subtitle, the Board may deny certification [, limited certification,] or temporary certification to any applicant, if the applicant:

(1) Fraudulently or deceptively obtains or attempts to obtain a certificate [,] OR temporary certificate [, or limited certification] for the applicant or for another; or

(2) Fraudulently or deceptively uses a certificate [,] OR temporary certificate [, or limited certification].

(b) Subject to the hearing provisions of § 12-309 of this subtitle, the Board may reprimand any certificate holder, or suspend or revoke a certification [, limited certification,] or temporary certification, if:

(1) The certificate holder:

(i) Fraudulently or deceptively obtains or attempts to obtain a certificate [,] OR temporary certificate [, or limited certification] for the certificate holder or another; or

(ii) Fraudulently or deceptively uses a certificate [,] OR temporary certificate[, or limited certification]; or

(2) The Board has any other reasonable cause for the action.

12-402.

(A) Each waterworks, wastewater works, and industrial wastewater works shall be under the supervision of a superintendent who is certified in the appropriate classification.

(B) THE DEPARTMENT SHALL ENFORCE THIS SECTION.

12-501.

(a) A person or municipal or private corporation may not operate a waterworks, wastewater works, or industrial wastewater works unless the facility is under the responsible charge of a certified superintendent.

(b) After July 1, 1982, a person or municipal or private corporation may not operate a waterworks or wastewater works unless all operators in the waterworks or wastewater works are certified operators.

(c) After July 1, 1982, a person or municipal or private corporation may not operate an industrial wastewater works unless all industrial operators in the industrial wastewater works are certified industrial operators.

(D) THE DEPARTMENT SHALL ENFORCE THIS SECTION.

12-602.

Subject to the evaluation and reestablishment provisions of the Program Evaluation Act, and except for the rules and regulations adopted by the Secretary, this title shall terminate and be of no effect after July 1, [2011] **2021**.

Article – State Government

8-403.

(a) On or before December 15 of the 2nd year before the evaluation date of a governmental activity or unit, the Legislative Policy Committee, based on a preliminary evaluation, may waive as unnecessary the evaluation required under this section.

(b) Except as otherwise provided in subsection (a) of this section, on or before the evaluation date for the following governmental activities or units, an evaluation shall be made of the

following governmental activities or units and the statutes and regulations that relate to the governmental activities or units:

(67) Waterworks and Waste Systems Operators, State Board of (§ 1 12–201 of the Environment Article: July 1, [2010] **2020**); and

SECTION 2. AND BE IT FURTHER ENACTED, That, on or before October 1, 2011, the State Board of Waterworks and Waste Systems Operators, in conjunction with the Department of the Environment, shall submit a report to the Senate Education, Health, and Environmental Affairs Committee and the House Environmental Matters Committee, in accordance with § 2–1246 of the State Government Article, on the status of nonstatutory recommendations contained in the Sunset Review: Evaluation of the State Board of Waterworks and Waste Systems Operators conducted by the Department of Legislative Services, specifically:

- (1) the options for development of a database to be used for tracking waste systems facilities and the employment of superintendents at facilities;
- (2) whether to recommend statutory changes to exempt facilities of a certain size or type from the requirement to employ a certified superintendent;
- (3) the use of circuit riders by facilities in Maryland and system compliance for facilities with circuit riders;
- (4) the adoption of regulations establishing the Board’s circuit rider experience crediting policy;
- (5) workforce conditions, including retirement, turnover, and salary, that affect future facility compliance with the certified operator requirement;
- (6) the options for upgrading the Board’s administrative database and website, and the compatibility of the Board’s administrative database with the Department of the Environment’s databases;
- (7) the use of the Department of the Environment’s penalty authority and any recommended changes to that authority;
- (8) preexamination training opportunities for operators;
- (9) the status of implementing computer–based examinations; and
- (10) the Board’s ability to generate sufficient fee revenue for the General Fund to cover the Board’s expenses.

SECTION 3. AND BE IT FURTHER ENACTED, That this Act shall take effect October 1, 2010.

**APPENDIX C
RECOMMENDATIONS FOR STATUTORY CHANGES**

Environment Article - Annotated Code

Article – Environment

§12-402.

(a) EXCEPT AS OTHERWISE PROVIDED IN THIS SECTION, EACH [Each] waterworks, wastewater works, and industrial wastewater works shall be under the supervision of a superintendent who is certified in the appropriate classification.

(B) A WATERWORKS, WASTEWATER WORKS, AND INDUSTRIAL WASTEWATER WORKS MAY HAVE A CERTIFIED OPERATOR SERVE IN RESPONSIBLE CHARGE IN LIEU OF A SUPERINTENDENT IF APPROVED BY THE DEPARTMENT, AND IF THE FACILITY MEETS THE FOLLOWING CRITERIA:

- (1) THE FACILITY SERVES FEWER THAN 500 PERSONS;
- (2) THE FACILITY HAS MINIMAL TREATMENT REQUIREMENTS AS DETERMINED BY THE DEPARTMENT; AND
- (3) THE FACILITY EMPLOYS TWO OR FEWER OPERATORS.

(C) [(B)] The Department shall enforce this section.

§12-501.

(a) A person or municipal or private corporation may not operate a waterworks, wastewater works, or industrial wastewater works unless the facility is under the responsible charge of a certified superintendent OR CERTIFIED OPERATOR AS PROVIDED UNDER §12-402 OF THIS SUBTITLE.

(b) After July 1, 1982, a person or municipal or private corporation may not operate a waterworks or wastewater works unless all operators in the waterworks or wastewater works are certified operators.

(c) After July 1, 1982, a person or municipal or private corporation may not operate an industrial wastewater works unless all industrial operators in the industrial wastewater works are certified industrial operators.

(d) The Department shall enforce this section.