

North Carolina

Water Treatment Facility Operators Certification Board

2014 Annual Report

To the Honorable Pat McCrory  
Governor of North Carolina

Prepared by:

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NCWTFOCB

## NCWTFO Certification Board 2014 Annual Report

### *A. Description of Program:*

In 1969 the General Assembly passed the law providing for the professional certification of water treatment facility operators. NCGS 90A-20 through 90A-32 provide for the establishment of the Water Treatment Facility Operators Board of Certification, for the classification of water treatment facilities, and for the issuance of licensing certificates to water treatment facility operators.

NCGS 90A-20 states that the purpose of the certification program is “to protect the public health and to conserve and protect the water resources of the State; to protect the public investment in water treatment facilities; to provide for the classifying of public water treatment facilities; to require the examination of water treatment facility operators and the certification of their competency to supervise the operation of water treatment facilities; and to establish the procedures for classification and certification. Further, it is the purpose of this Article to provide for the certification of personnel operating the distribution portion of a water treatment facility.”

The Operators Certification Program serves the NC Water Treatment Facility Operators Certification Board (NCWTFOCB). The Program supports staff that includes education and training specialists as well as administrative support. Program staff are located within the Public Water Supply Section of the Division of Water Resources. Staff perform a variety of functions that include: administering statewide examinations, approving continuing education opportunities, managing database and state records, providing training and outreach, depositing fee receipts, participating in the enforcement of *Rules Governing Water Treatment Facility Operators* (Title 15A Subchapter 18D), and coordinating an annual license renewal process.

The existence and successful function of the state’s certification efforts has consequences with respect to federal funding. On an annual basis, the EPA reviews and approves certification program activities and reserves the authority to withhold twenty percent of the Drinking Water State Revolving Fund, a federal grant that supports drinking water infrastructure, if baseline program expectations are not met. To date EPA has always approved North Carolina’s certification program activities.

### *B. Budgetary Considerations:*

Certification activities are supported by operator fees generated by the program (as per 15A NCAC 18D .0304). The program does not receive money from the general fund nor does it regularly receive federally appropriated funds. Fee receipts are used for a variety of purposes, including salary support, IT services/software development, capital equipment, and expenditures associated with trainings and examinations administered throughout the state.

Table 1 (below) provides five years of historical data relevant to the program’s financial status. Additional financial data is available for earlier years and is available upon request. In recent

years, unspent funds remaining at the end of the fiscal year have been transferred to the General Assembly. This situation has resulted in difficulty budgeting for items that are necessary to improve the program (such as IT applications and database updates). Relatively lower expenses incurred in 2014 reflect a retirement vacancy associated with a key program supervisory position. This vacancy was filled in November 2014.

Table 1. Historical financial data (dollars)

<b>Financial Indicator:</b>	<b>FY2010</b>	<b>FY2011</b>	<b>FY2012</b>	<b>FY2013</b>	<b>FY2014</b>
<b>Projected Budgetary Needs</b>	303,078	291,655	303,226	306,458	306,458
<b>Actual Expenses</b>	268,822	263,059	286,984	282,963	250,609
<b>Actual Fee Receipts</b>	285,970	291,175	292,570	292,300	297,660

*C. Status of Professional Operators:*

North Carolina requires four distinct categories of certified professionals to operate the state’s drinking water treatment facilities. These categories include surface, well, distribution and cross connection operators. To become certified, an operator must complete a Board-approved training program and also pass an examination administered by the certification program.

For the most part, the state’s community of certified operators has remained consistent for the past five years, as shown below in Table 2. The current number of operators appears adequate to meet demand. It is interesting to note that the total number of regulated public water supply systems tends to decrease over time. This is likely due to consolidation of water systems across the state.

Table 2. Trend indicators regarding certified operators

<b>Trend Indicator:</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>No. of Certified Operators</b>	5,171	5,209	5,017	5,405	5523
<b>Initial Certifications Issued</b>	281	412	258	274	267
<b>Upgraded Certifications Issued</b>	264	288	314	293	314
<b>No. of Operators Decertified</b>	464	300	487	344	360

*D. Enforcement Activities:*

With few exceptions, public water systems in North Carolina must have a certified operator in responsible charge (ORC) for each water treatment facility that: (i) alters the physical, chemical or microbiological characteristics of the water; (ii) has approved plans for such alterations; or (iii) has equipment installed for such alterations (as per 15A NCAC 18D .0206). The certification program, with input from Regional Office staff and water system officials, maintains ORC information for all the state’s public water systems. In instances of non-compliance, the program issues notices of violation (NOVs). The Section Chief of the Public Water Supply Section has designated authority to assess administrative penalties (APs) in cases when non-compliance exceeds 90 days. Once an administrative penalty is assessed, the Protection and Enforcement Branch of the Public Water Supply Section pursues enforcement actions with assistance from the NC Department of Justice. Table 3 (below) shows a summary of enforcement activities that have occurred over the last five years.

The Certification Board has authority to take disciplinary action and revoke certifications in cases where negligence, operator incompetence, or criminal activity has occurred. Such cases are rare and no disciplinary actions were levied against operators in 2014.

Table 3. Enforcement related activities

<b>Enforcement Indicator:</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
<b>No. of NOVs</b>	44	31	36	34	22
<b>No. of APs</b>	16	9	6	9	3
<b>Disciplinary Actions</b>	0	0	1	0	0

*E. General Goals and Objectives:*

The certification program maintains a set of general objectives that are used to prioritize staff activities. The program continued to successfully meet these objectives in 2014, despite the retirement of the program’s supervisor and reduced reliance on temporary employee labor. The program’s general objectives include:

1. Ensure public water treatment facilities have properly certified operators.

As discussed in section D of this report, the program tracks ORC assignments at all applicable water systems across the state. To assist with ORC placement, the program provides lists of available operators upon request to any water system attempting to fill a vacancy.

2. Certify water treatment facility operators by examination.

Traditional examinations are held across the state on a quarterly basis. In addition, three electronic exams are offered in the interim. The examination procedure is intensive, with major focus on security and maintaining the integrity of the exam. In 2014, the certification program administered 1416 examinations. The passing rate averaged across all exam categories was 49%.

3. Provide logistical support for the NCWTFOC Board.

Program staff supports the Board by conducting its routine business and functioning as secretary during the Board’s quarterly meetings. Activities typically include logistics and support, which include compiling statistical reports, preparing documents, creating meeting agendas and providing input on policy decisions.

4. Provide online availability of operator information for operators.

Certified operators expect and are provided information that is continually updated and delivered via the program’s website. Information of interest includes forms and publications, rule reference materials, course offerings for continuing education, information regarding approved schools, and monthly updates on operator status.

5. Review and preapprove courses for continuing education.

The certification program reviews requests from vendors and trainers to approve educational opportunities for the state’s operators. To date, the program has reviewed material and instructor qualifications to approve more than 3,000 courses for professional growth.

#### 6. Maintain operator records.

The certification program maintains an IBEAM database to permanently record activities related to licensure. Information includes a history of exams taken, schools completed, professional growth hours earned, personal/contact information, active certifications, ORC appointments, and fees paid to the Board. In addition, paper documents are scanned and maintained in electronic format in accordance with existing records and retention policy. Keeping records current and accessible is a major activity of the certification program.

#### 7. Manage the annual operator renewal process.

The certification program coordinates the annual renewal process for approximately 8,000 professional certifications in the state. The renewal process includes billing, processing fees, verifying professional growth hours, updating database records and expiring ineligible operators. The process is intensive and typically requires direct contact with many of the state's operators. Wallet identification cards are printed and mailed to all operators at the end of the renewal process.

#### *F. Notable Changes and Achievements in 2014:*

1. The certification program has undergone major structural changes since reorganization in late 2013. A consolidation of the Division of Water Quality and the Division of Water Resources resulted in creation of a new organization unit (the Operator Certification Unit). This new unit combines the certification functions of the state's wastewater operators, animal waste operators, and drinking water facility operators. A mandate to identify and implement program efficiencies and consistencies accompanied the reorganization. The new unit employs a full time staff of seven and manages professional certifications for over 15,000 operators in the state. In November 2014, a new program supervisor was hired to manage staff and business procedures.

2. Following a server failure that disabled the program's Documentum retrieval system, a new structure to transfer paper documents into electronic format was developed and initiated. In the new electronic format, records are searchable and can be retrieved readily by a variety of search options. The new system includes secure access and conforms to the records retention and disposition schedule approved by the NC Historical Resources Director in April of 2012. In 2014 approximately 3,000 documents were scanned into the new system.

3. New software to receive electronic roster information was created and distributed to the state's training providers. Course instructors and vendors now have the capability to electronically transmit rosters for completed training classes directly to the certification staff for verification and upload into the database. This capability has greatly reduced both the errors in transcription of the data and the staff time required to process the data.

4. Sensitive personal information was decoupled from IBEAM database. The Certification Board is required to collect and maintain social security numbers from all applicants for licensure. The information can only be released upon request to the Department of Health and Human Services or the Department of Revenue. Procedures were implemented to remove the sensitive information from IBEAM and store it in a secured location, eliminating security issues related to database access.

5. The *Rules Governing Water Treatment Facility Operators* (15A NCAC 18D) were examined and categorized to identify improvements and options related to repeal/readoption. House Bill 74 required all State agencies to review their rules and the schedule for 18D was initiated in 2014. Board classifications were completed for all sections of NCAC 18D on September 16, 2014. Staff posted the Rules to the Rules Review Commission (RRC) website for public review and comment during the period of September 18 to November 23, 2014. The Board considered public comments received and approved final classifications for the Rules at their December 9, 2014 meeting. Final Rules Reports were forwarded on December 29, 2014 to the Board's Rules Coordinator for subsequent submittal to the RRC.

*G. Anticipated Program Improvements and Recommended for 2015:*

1. The *Rules Governing Water Treatment Facility Operators* (15A NCAC 18D), will continue to be examined to identify candidates for rule change or readoption. There is an opportunity for greater clarification as well as insertion of new rule language to better serve the state's certified operators. Changes in rules related to system classification are anticipated to reflect changes in treatment technology.

2. The most significant potential improvements to the certification program is probably via IT initiatives and solutions. Such improvements are consistent with the Division's instructions to identify and implement program efficiencies. In 2015, the program intends to pursue the following:

(a) Initiate a mechanism to accept electronic fee payment:

Many of the state's operators have stated a preference to pay fees via credit card over a secure website. Currently, the certification program only accepts a traditional paper check for fee payment. An electronic payment option will involve integration with two database structures, IBEAM and BIMS, to ensure accurate and timely record keeping. Implementing this IT improvement will likely be a major undertaking. We intend to work closely with the NCDENR Financial Systems Manager to implement electronic fee payments.

(b) Initiate "on demand" examinations:

Operators frequently inquire about the possibility of taking an examination outside the times of the program's published schedule. An on-site computer lab is nearing completion and it is our hope to be able to utilize it for on demand testing by mid-2015.

(c) A project has been initiated to allow operators to access their information and data through a web portal. Information available will include program updates, contact information, payments and account information, and professional growth hours. This portal will also serve as the link to the electronic payment system being developed by NCDENR (see item (a), above).

(d) Efforts to consolidate the exam grading process for water and wastewater certification exams are nearing completion including the completion of a standardized answer sheet to be used across the programs and procurement of a new grading scanner. The new exam grading system will automatically produce files for correspondence and digital records to further streamline filing requirements.