NORTH CAROLINA
WASTEWATER LABORATORY ANALYST
CERTIFICATION PROGRAM

Sponsored by
North Carolina AWWA/WEA

GENERAL INFORMATION and POLICIES
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1. Wastewater Laboratory Analyst Certification Program History

In 1993, Arlene Roman (then of City of Charlotte), Kathy Southern (City of Winston-Salem) and Martie Groome (City of Greensboro) petitioned the NC AWWA/WEA Board to approve the formation of a Laboratory Analyst Committee of the North Carolina American Water Works Association/Water Environment Association [AWWA/WEA]. Approval was granted and the Laboratory Analyst Committee [LABNET] was formed in 1994. A Wastewater Laboratory Analyst Certification Board (“Board”) was created under this committee in 1995 and the first wastewater laboratory analyst certification exams (just the Class I) were given in February 1996.

The North Carolina AWWA/WEA sponsors this voluntary Wastewater Laboratory Analyst Certification Program. Although all wastewater laboratories are required to be certified by the State of North Carolina, this voluntary analyst program is a means by which the individual laboratory analyst can prove their competence and increase their professional skills.

2. Certification Board Members

a. Original Founding Board Member Criteria and Board Members

The original seven board members agreed to take the Class I, II, III and IV Wastewater Laboratory Analyst exams through the Association of Boards of Certification [ABC] and not seek North Carolina AWWA/WEA certification.

The founding board members were as follows: Alwin Basden-Advisor (then of State of North Carolina Training and Certification Unit), A. D. Isley (City of Burlington), Kathy Southern (City of Winston-Salem), Arlene Roman (then of City of Charlotte), Bill Frazier (City of High Point), Martie Groome (City of Greensboro), Steve Rayburn (then of Guilford Laboratories, Inc.) and Martha Sexton (City of Graham).

b. Board Member Criteria

North Carolina AWWA/WEA Wastewater Analyst Certification Board Members:

- Shall have obtained Class IV Laboratory Analyst Certification through ABC or North Carolina AWWA/WEA. An exception can be granted by the Board for a Board member with a Class III Wastewater Laboratory Analyst certification who agrees not to review Class IV test questions or tests.
- Shall agree to actively participate in board activities including proctoring exams, exam application review, exam planning, exam applicant correspondence, applicant database maintenance, etc.
- Shall agree to keep confidential any and all exam question information including information from exam review during proctoring, pilot exam questions from ABC, question review during Needs to Know development, etc.
- May continue to serve after retirement if they so desire
- May request to remove themselves from the Board for any reason
- May be removed from the Board through majority Board vote for lack of participation or failure to comply with Board Member requirements

The Board Chair shall be selected by a majority vote of the Board and may serve until resignation or removal.
c. **New Board Members**
The Wastewater Laboratory Analyst Certification Board shall maintain at least five members in order to carry out the Board functions. New Board member candidates will be selected by the current Board members from the pool of North Carolina Class IV Wastewater Laboratory Analysts. A majority vote of the current Board and a willingness to serve confirms the new Board member.

d. **Current Board Members**
As of this date the current NC AWWA/WEA Wastewater Laboratory Analyst Certification Board Members are as follows: Martie Groome (City of Greensboro), A. D. Isley (Retired-City of Burlington), Kathy Southern (Retired-City of Winston Salem), Arlene Roman (City of Gastonia), Glenn D. McGirt (City of Burlington).

3. **Wastewater Analyst Certification Board Responsibilities**

a. **Maintain Master Data Base for Examinees/Certificate Holders**
A master database of all Wastewater Laboratory Analyst examinees shall be maintained by the Board and shall include at least the following:
- List of all examinees and contact information for each examinee
- Dates of all exams attempted by each examinee
- All exam results for each examinee in Pass/Fail format
- A list of examinees that have taken and failed the same level of exam three times
- A list of examinees that have taken and failed the same level of exam six times
- Examinee Certificate Number(s) (if applicable)
The master database shall be maintained by the Board Chair, updated after each exam and distributed electronically to at least one additional Board member after each update.

b. **Needs to Know Study Material Development**
The Board shall develop and maintain Needs to Know Study Questions for the Class I, Class II, Class III and Class IV Wastewater Laboratory Analyst Exams. Exam information shall be monitored to ensure that the Needs to Know information is current and comprehensive.

c. **Wastewater Laboratory Analyst Exams**
Four levels of Wastewater Laboratory Analyst Exams are offered [Class I-IV, with the Class IV being the highest]. As the exams progress, wastewater analytical tests of increasing difficulty are covered. The exams consist of 100 multiple choice questions and are purchased from the Association of Boards of [Environmental] Certification in Ames, Iowa.

The Board shall offer Wastewater Laboratory Analyst exams at least twice per year. These exams will usually be given in May or June and November or December with dates and locations at the discretion of the Board. It has been the practice of the Board since its inception to offer exams in eastern North Carolina and western North Carolina every other year. Exams are given twice in a central North Carolina location on the alternate year.

Exam announcements shall be made via email, NC AWWA/WEA website and any other outlet the Board may deem necessary.
d. **Wastewater Laboratory Analyst Exam Application Development**

The Board shall develop and maintain a Wastewater Laboratory Analyst Exam application form with sufficient information to determine whether each candidate meets the minimum criteria for the exam taken. The application shall contain at least the following:

- Applicant Name and Contact Information
- Name and Address of Employer
- Employment history outlining specific wastewater laboratory experience and hours worked
- Academic Information including requirement to submit a copy of high school diploma or college diploma/transcript to document highest level of academic achievement.
- Applicant’s certification statement and signature
- Recommendation and Signature of Applicant’s Supervisor verifying work experience


e. **Wastewater Laboratory Analyst Exam Application Review**

Wastewater Laboratory Analyst Exam applications shall be reviewed/signed by a Board member and whenever possible, should be reviewed and signed by two Board members. No Board member shall be the sole reviewer for an application that contains their signature as the supervisor of the applicant.

All applications shall be reviewed to verify that the applicant qualifies for the exam listed on the application. The master database should be consulted to determine the number of times the exam has been taken previously. Any applicant not meeting the appropriate exam qualifications shall be notified in writing, including the specific qualification(s) in question.

f. **Exam Proctors**

All exam proctors shall be Board Members in good standing. There shall be at least one proctor for every 25 examinees (as per ABC requirements). Exam proctors shall follow ABC written guidelines provided with each set of exams concerning examinee check-in including photo ID, exam administration, instructions, answer sheets, return of exams to ABC, exam security, etc.

Starting with exams in 2009, Social Security numbers will no longer be used as ID numbers on ABC exam answer sheets. North Carolina Driver’s License numbers will be used as ID numbers. If the examinee does not have a NC driver’s license the proctor will assign a number to that individual for that exam.

g. **Certificate Issuance**

Each examinee that passes an exam and is in good financial standing for that exam will be issued a numbered Certified Environmental Analyst certificate from the North Carolina AWWA/WEA. Certificates will be signed by the Certification Board Chair and the current NC AWWA/WEA Chair.

h. **Exam Fees**

Exam fees shall be reviewed by the Board annually.
4. Wastewater Laboratory Analyst Exam Applicant Qualifications

Education and wastewater laboratory experience requirements for each exam level are based on the Association of Boards of Certification criteria. In addition, the North Carolina Board has developed several program-specific definitions.

a. Definitions
   - One “work year” is defined as 1800 hours of acceptable wastewater laboratory experience.
   - Acceptable Wastewater Laboratory Experience - The total time spent conducting/ supervising wastewater sampling and/or wastewater analyses in a laboratory, which performs wastewater analyses [including municipal, commercial, educational or other governmental laboratories].
   - Recognized Two-Year College or Technical School - Shall mean an accredited two-year institution awarding degrees on the associate level.
   - Recognized College or University - Shall mean an accredited four-year institution awarding degrees on the bachelor level.

Academic Qualifications:
   - Natural or physical sciences, engineering or related fields/majors include college degrees in: biology, chemistry, biochemistry, physics, environmental science/environmental studies, ecology, engineering, geology, zoology
   - College degrees that have been determined to not qualify as related fields/majors include degrees in: computer science, history, psychology, business, economics, art, music, sociology, geography, mathematics, accounting
   - The Board may make case-by-case decisions on any degrees not specifically listed and may request transcripts of specific courses taken.

b. Qualifications for Class I Wastewater Laboratory Analyst Exam
   1. 6 years of acceptable wastewater laboratory experience; or,
   2. completion of 8th grade of school and 5 years of acceptable wastewater laboratory experience; or,
   3. graduate of high school, or equivalent GED, and one year of acceptable wastewater laboratory experience; or,
   4. graduate of a recognized 2-year college or technical school with a major in natural or physical sciences, engineering or related field and one year of acceptable wastewater laboratory experience.
   5. graduate of a recognized college or university with a major in natural or physical sciences, engineering or related field and one year of acceptable wastewater laboratory experience.

c. Qualifications for Class II Wastewater Laboratory Analyst Exam
   An active Class I N.C. Wastewater Laboratory Analyst Certificate and one of the following:
   1. 8 years of acceptable wastewater laboratory experience; or,
   2. completion of 8th grade of school and 7 years of acceptable wastewater laboratory experience; or,
   3. graduate of high school, or equivalent GED, and 3 years of acceptable wastewater laboratory experience; or,
4. graduate of a recognized 2-year college or technical school with a major in natural or physical sciences, engineering or related field and 1.5 years of acceptable wastewater laboratory experience.
5. graduate of a recognized college or university with a major in natural or physical sciences, engineering or related field and 1.5 years of acceptable wastewater laboratory experience.

d. Qualifications for Class III Wastewater Laboratory Analyst Exam
An active Class II N. C. Wastewater Laboratory Analyst Certificate and one of the following:
1. graduate of high school, or equivalent GED, and six years of acceptable wastewater laboratory experience; or,
2. graduate of a recognized 2-year college or technical school with a major in natural or physical sciences, engineering or related field and four years of acceptable wastewater laboratory experience.
3. graduate of a recognized college or university with a major in natural or physical sciences, engineering or related field and two years of acceptable wastewater laboratory experience.

e. Qualifications for Class IV Wastewater Laboratory Analyst Exam
An active Class III N. C. Wastewater Laboratory Analyst Certificate and one of the following:
1. graduate of high school, or equivalent GED, and ten years of acceptable wastewater laboratory experience; or,
2. graduate of a recognized 2-year college or technical school with a major in natural or physical sciences, engineering or related field and six years of acceptable wastewater laboratory experience.
3. graduate of a recognized college or university with a major in natural or physical sciences, engineering or related field and four years of acceptable wastewater laboratory experience.

5. Other North Carolina Wastewater Laboratory Analyst Certification Board Exam Policies
a. Examinee Score Reporting
All examinees in good financial standing for that exam will be provided with their examination results. Test scores will not be released by the Board to any person other than the examinee. Test results from all previous exams shall be maintained and secured by the Board Chair.

b. Score Required for Certification
The passing score for all Wastewater Laboratory Analyst Certification examinations is 70. This score must be achieved solely through performance on the exam.

c. Repeated Exam Failures
An examinee that has taken the same level of a Wastewater Laboratory Analyst exam three times and failed all three times shall be required to:
- Wait at least one year before attempting the exam again
- Provide the Board with written documentation of completion of at least 3 (three) hours of continuing education directly related to wastewater laboratory topics before being allowed to take the exam again. Meeting the 3 hour continuing education requirement will allow the examinee to take the exam three more times.
An examinee that has taken the same level of a Wastewater Laboratory Analyst exam six times and failed all six times must wait at least one year from the sixth failure and then personally petition the Certification Board in order to take the exam again. The written petition must include written documentation of specific activities (e.g., additional education/college courses, additional training seminars, job shadowing, etc.) that the applicant has undertaken since the sixth failure in order to obtain the information necessary to pass the exam. The training/activities undertaken must be directly related to the knowledge required of a wastewater laboratory analyst. Although there is not a minimum number of “hours” required for a petition, the Board would expect significant effort and time investment on the part of the applicant in order to approve the petition. A decision on an exam petition shall be made by majority vote of the Board.

d. Reciprocity
ABC exams are national exams and an analyst certified in North Carolina may be able to receive direct reciprocity in other states that also use ABC exams. The North Carolina Board will also issue certification reciprocity to certain candidates.

In order to receive North Carolina reciprocity a candidate must provide the following:
- Official documentation of a passing score of 70 on a comparable Wastewater Laboratory Analyst Certification exam developed by and scored by the Association of Boards of Certification. The score of 70 must be achieved solely through performance on the exam.
- Reciprocity Certification Fee of $20.00 (twenty) dollars.
- The North Carolina Certificate issued via reciprocity will be designated with an “R” after the certificate number.

e. Use of Electronic Interpreter Devices
No electronic interpreter devices may be used during any NC AWWA/WEA Wastewater Laboratory Analyst Certification exams.

6. Relationship with Association of Boards of Certification
It is the intention of the North Carolina AWWA/WEA Wastewater Laboratory Analyst Certification Board to maintain a relationship with the Association of Boards of Certification and obtain exams and exam scoring services from that organization.