

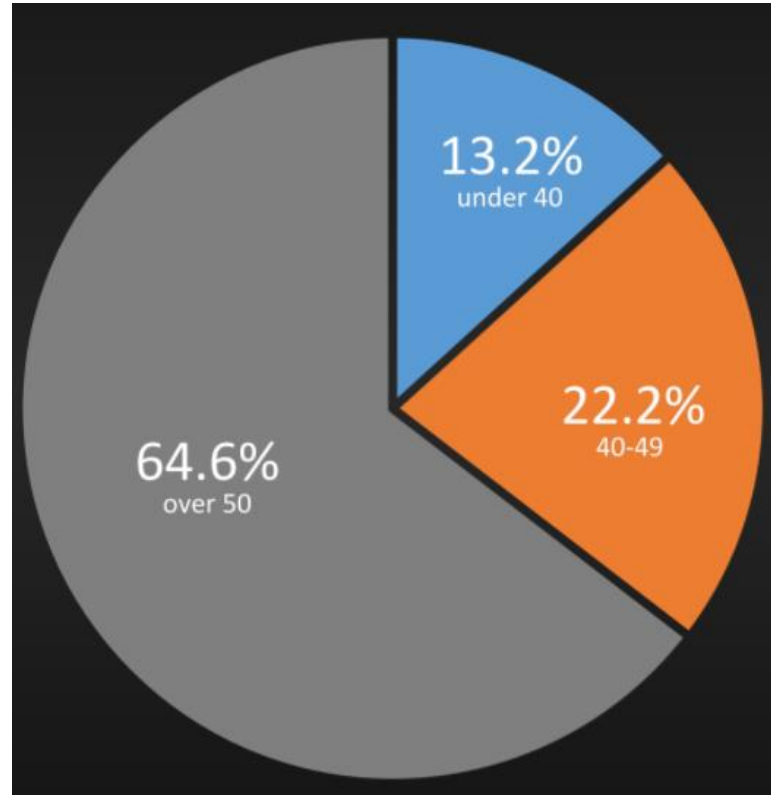


Setting the Certification Standard





Water and Wastewater Operator Age Breakdown



Source:



Fighting the Looming Operator Void
November 04, 2016



Trend

- Developing for quite some time
- Many simultaneous retirements
- Loss of knowledge due to poor records



Causes

- Utility operator job openings have been a great kept secret
- Buddy and family system of hiring
- Benefit packages help retain long term employees



Causes

- Employees love the job, and stay until retirement
- Operators feel obligated to help when new operators are not available
- Lack of promotion of job opportunities in the field



Effects

- Panic, Panic, and more Panic
- Certification Requirement Discussions
- Legislation Discussion



Effects

- Retired operators returning to the workforce
- Cross training of city employees
- The need to find more good, qualified operators



Water Pollution

- Water Quality Legislation:
 - Clean Water Act (1972)
 - Protects surface waters from pollution
 - Financed wastewater treatment facilities
 - Ocean Dumping Act (1972)
 - Unlawful to dump sewage or sludge into oceans
 - Safe Drinking Water Act (1974,1996)
 - Established federal program to monitor drinking water supply
 - Oil Spill Prevention and Liability Act (1990)
 - EPA can prevent & respond to oil spills





Drinking Water Rule Quick Reference Guides

These documents provide a simple and straightforward description of the rule and requirements. The documents include critical deadlines for drinking water systems and states and monitoring requirements.

On this page:

- [Arsenic Rule Quick Reference Guide](#)
- [Consumer Confidence Report Rule Quick Reference Guide](#)
- [Filter Backwash Recycling Rule Quick Reference Guide](#)
- [Groundwater Rule Quick Reference Guides](#)
- [Interim Enhanced Surface Water Rule Quick Reference Guide](#)
- [Lead and Copper Rule Quick Reference Guide](#)
- [LT1 Quick Reference Guide](#)
- [LT2 Quick Reference Guides](#)
- [Public Notification Rule Quick Reference Guide](#)
- [Stage 2 Rule Quick Reference Guides](#)
- [Standardized Monitoring Framework Quick Reference Guide](#)
- [Surface Water Treatment Rule Quick Reference Guide](#)
- [Total Coliform Rule Quick Reference Guide](#)
- [Variances and Exemptions Quick Reference Guide](#)
- [Radionuclides Rule Quick Reference Guide](#)
- [Small Systems Record Keeping Rules Quick Reference Guide](#)





Municipal Wastewater

On this page:

- [Overview](#)
 - [Wastewater Treatment Facilities](#)
 - [Collection Systems](#)
 - [Peak Flows at Treatment Facilities](#)
 - [Additional Information](#)
-

Overview

The collection and treatment of domestic sewage and wastewater is vital to public health and clean water. It is among the most important factors responsible for the general level of good health enjoyed in the United States. Sewers collect sewage and wastewater from homes, businesses, and industries and deliver it to wastewater treatment facilities before it is discharged to water bodies or land, or reused.

Wastewater Treatment Facilities

NPDES permits establish discharge limits and conditions for discharges from municipal wastewater treatment facilities to waters of the United States. Resources for discharge requirements include:

- [Primer for Municipal Wastewater Treatment](#) - Overview of municipal processes used to treat domestic wastewater before discharge to the nation's waters.
 - [NPDES Permitting Framework](#) - Framework for establishing water quality and technology-based NPDES permit limits.
 - [Secondary Treatment Standards](#) - Minimum, technology-based standards for discharges from municipal wastewater treatment facilities.
-





Certification Issues

- Different Certification Standards
- Different Exams
- Different Priorities
- Different Educational Requirements





What is Driving Certification Standards

- Regulations
- Legislators
- Industry Organizations
- Operator Shortage





Certification Standards

Example #1

- Section 1. Classification of Water Operator Certifications. (1) Water treatment certifications.
- (a) Limited certification. As provided in _____, an operator issued a limited certificate may have primary responsibility for a water treatment facility for a school and for a semipublic water supply.
- (b) Class IA-D treatment certification.
- 1. A Class IA-D treatment operator may be in direct responsible charge for a Class IA-D or Class IB-D water treatment plant as established in _____, Section 2.
- 2. A Class IA-D treatment operator shall not be in direct responsible charge for a water treatment plant with a larger design capacity.
- (c) Class IB-D treatment certification.
- 1. A Class IB-D treatment operator may be in direct responsible charge for a Class IB-D water treatment plant, as established in _____, Section 2.
- 2. A Class IB-D treatment operator shall not be in direct responsible charge for a water treatment plant with a larger design capacity.
- (d) Class IIA treatment certification.
- 1. A Class IIA treatment operator may be in direct responsible charge for a Class IIA water treatment plant or a Subclass A or B water treatment plant of an equal to or smaller design capacity, as established in _____, Section 2.
- 2. A Class IIA treatment operator shall not be in direct responsible charge for a water treatment plant with a larger design capacity.
- (e) Class IIB-D treatment certification.
- 1. A Class IIB-D treatment operator may be in direct responsible charge for a Class IIB-D water treatment plant or a Subclass B water treatment plant of a smaller design capacity, as established in _____, Section 2.
- 2. A Class IIB-D treatment operator shall not be in direct responsible charge for a water treatment plant with a larger design capacity.





Certification Standards

Example #1

- (f) Class IIIA treatment certification.
 - 1. A Class IIIA treatment operator may be in direct responsible charge for a Class IIIA water treatment plant or a Subclass A or B water treatment plant of an equal to or smaller design capacity, as established in _____, Section 2.
 - 2. A Class IIIA treatment operator shall not be in direct responsible charge for a water treatment plant with a larger design capacity.
- (g) Class IIIB treatment certification.
 - 1. A Class IIIB treatment operator may be in direct responsible charge for a Class IIIB water treatment plant or a Subclass B water treatment plant of a smaller design capacity, as established in _____, Section 2.
 - 2. A Class IIIB treatment operator shall not be in direct responsible charge for a water treatment plant with a larger design capacity.
- (h) Class IVA treatment certification.
 - 1. A Class IVA treatment operator may be in direct responsible charge of any Subclass A or B water treatment plant, as established in _____, Section 2.
- (i) Class IVB treatment certification.
 - A Class IVB treatment operator may be in direct responsible charge of any Subclass B water treatment plant, as established in _____, Section 2.





Certification Standards Example #2

1. Examination Eligibility

To be eligible for operator licensing examinations, the applicant must meet the following criteria:

- Have a high-school diploma or its equivalent. (important information)
- Have successfully completed an approved required training course for the classification and level of the examination to be taken no more than five years before the examination.

Current License Holders - You must also be currently licensed as follows:

Treatment Plant Operators

- Licensed at the B level to take the A level examination.
- Licensed at the C level to take the B level examination.

Distribution System Operators

- Licensed at the Level 2 to take the Level 1 examination.
- Licensed at the Level 3 to take the Level 2 examination.

Operators from other states must meet the requirements. These requirements may be found in Rule 62-602.360(1)(a)-(d), F.A.C.



Certification Standards

Example #3

Levels of Licensure, Requirements for Each Level, Operator-in-Charge Requirements for Facilities.

- A. The board shall certify qualified applicants in accordance with the levels of licensure defined in this article. In each case, the applicant must meet at least the minimum experience requirements set for the level of licensure being sought. Further, each applicant must comply with the examination requirements, as established in 51-2, relevant to the level of licensure desired.
- B. An applicant's education, both degree-related and non-degree-related, may be considered by the board in determining whether the applicant meets the experience requirements for licensure. However, no applicant shall receive a graded certificate without having completed at least one (1) year of actual operating experience. This applies for "C", "B" and "A" level licensure only.
- C. There will be no additional application fee for an operator to progress from a lower license to a higher one. However, an examination fee will be charged for each examination taken by an applicant.





Certification Standards

Example #3

D. Licensees and applicants are responsible for notifying the board within fifteen (15) days, whenever they change employers and their position requires certification.

E. The levels of licensure for water treatment plant and water distribution operators, and the requirements for each level, are defined in Section 40-23-300, _____, 1976 as amended.

F. The levels of licensure for physical/chemical wastewater treatment plant operators, and the requirements for each level, are defined as:

1. To be licensed by the board as a “Trainee” physical/chemical wastewater treatment plant operator an applicant must:

a. submit an application on forms approved by the board and the prescribed fee.





Certification Standards

Example #3

2. To be licensed by the board as “D” physical/chemical wastewater treatment operator an applicant must:
 - a. hold a valid “Trainee” License;
 - b. have a high school diploma or the equivalent;
 - c. pass an examination approved by the board;
 - d. have completed at least one (1) year of actual operating experience at a physical/chemical wastewater facility, or the equivalent; and,
 - e. submit an affidavit of employment documenting the experience.

3. To be licensed by the board as a “C” physical/chemical wastewater treatment plant operator an applicant must:
 - a. hold a valid “D” License;
 - b. pass an examination approved by the board;
 - c. have completed at least two (2) years of actual operating experience at a physical /chemical wastewater facility, or the equivalent; and,
 - d. submit an affidavit of employment documenting the experience.





Certification Standards

Example #3

4. To be licensed by the board as a "B" physical/chemical wastewater treatment plant operator an applicant must:
 - a. hold a valid "C" License;
 - b. pass an examination approved by the board;
 - c. have completed at least three (3) years of actual operating experience at a physical/chemical wastewater facility, or the equivalent; and,
 - d. submit an affidavit of employment documenting the experience.

5. To be licensed by the board as an "A" physical/chemical wastewater treatment plant operator an applicant must:
 - a. hold a valid "B" License;
 - b. pass an examination approved by the board;
 - c. have completed at least four (4) years of actual operating experience at a physical/chemical wastewater facility, or the equivalent; and,
 - d. submit an affidavit of employment documenting the experience.





Certification Standards

Example #3

- G. The levels of licensure for biological wastewater treatment plant operators, and the requirements for each level, are defined as:
1. To be licensed by the board as a “Trainee” biological wastewater treatment plant operator an applicant must:
 - a. submit an application on forms approved by the board and the prescribed fee.
 2. To be licensed by the board as a “D” biological wastewater treatment plant operator an applicant must:
 - a. hold a valid “Trainee” License;
 - b. have a high school diploma or the equivalent;
 - c. pass an examination approved by the board;
 - d. have completed at least one (1) year of actual operating experience at a biological wastewater facility, or the equivalent; and,
 - e. submit an affidavit of employment documenting the experience.





Certification Standards

Example #3

3. To be licensed by the board as a “C” biological wastewater treatment plant operator an applicant must:

- a. hold a valid “D” Operator License;
- b. pass an examination approved by the board;
- c. have completed at least two (2) years of actual operating experience at a biological wastewater facility, or the equivalent; and,
- d. submit an affidavit of employment documenting the experience.

4. To be licensed by the board as a “B” biological wastewater treatment plant operator an applicant must:

- a. hold a valid “C” License;
- b. pass an examination approved by the board;
- c. have completed at least three (3) years of actual operating experience at a biological wastewater facility, or the equivalent; and,
- d. submit an affidavit of employment documenting the experience.





Certification Standards

Example #3

5. To be licensed by the board as an “A” biological wastewater treatment plant operator an applicant must:
 - a. hold a valid “B” License;
 - b. pass an examination approved by the board;
 - c. have completed at least four (4) years of actual operating experience at a biological wastewater facility, or the equivalent; and,
 - d. submit an affidavit of employment documenting the experience





Standards and Skillsets of Operator Talent Pool

- High School diploma or equivalent
- Technical or trade school in applicable areas of operation
- Water Biology and Chemistry Knowledge





Standards and Skillsets of Operator Talent Pool

- Willingness for hands on operation and duties
- Willingness to continue to learn
- Willingness to take some post secondary classes





Standards and Skillsets of Operator Talent Pool

- Leaders
- Followers of regulations
- Go-getters





Standards and Skillsets of Operator Talent Pool

- Disciplined
- Able to work independently and as part of a group
- Writing skills





Standards and Skillsets of Operator Talent Pool

- Able to read and understand permits, regulations, and other field related documents
- Be able to communicate with blue and white collar co-workers





Standards and Skillsets of Operator Talent Pool

- Be able to articulate well enough to conduct meetings, possibly presentations, as well as report to Utility Boards
- Be willing to attend Board meetings





Standards and Skillsets of Operator Talent Pool

- Be involved in Industry Organizations, understand each one, and how each benefits his or her utility, community, and regulatory community
- Understand how to keep utility in compliance through a good succession planning and employee pool



Discussion

1. How do we achieve 1 true Certification Standard
2. What talent identifiers have we not discussed
3. How do we do a better job of integrating the educational aspect

