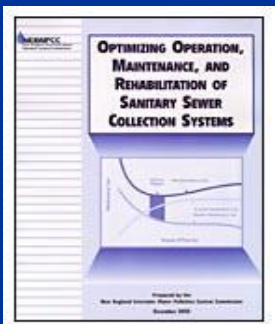


# Being a Certified Wastewater Operator in Massachusetts





- Working for Clean Water
  - Regional Coordination
  - Serving & Assisting Member States
  - Research
  - Training, Education & Information



# Why NEIWPCC?

NEIWPCC, in conjunction with MassDEP, has been administering wastewater certification programs on behalf of the state since 2005.

NEIWPCC has been providing wastewater training on a regional basis since 1968.

# MA Certification 257 CMR 2.00

While one does not have to be certified to work in a wastewater facility, those in *responsible charge* must be certified to the proper grade.

To be certified, you must pass a certification exam. To be “Full Active” at a particular grade, you must also possess a certain level of experience. All of this is described in the above regulation.

[www.mass.gov/eea/agencies/massdep/water/regulations/257-cmr-2-00-treatment-plant-operator-certification.html](http://www.mass.gov/eea/agencies/massdep/water/regulations/257-cmr-2-00-treatment-plant-operator-certification.html)

# Massachusetts Wastewater Operator Certification

There are 11 grades of certification in  
Massachusetts:

- Municipal – Grades 1 through 4
- Industrial – Grades 1 through 4
- Combined – Grades 5C & 6C
- Grade 7 – Given by the Board of Certification

# Municipal vs. Industrial Certification

- Municipal certification is for operators that work with a biological process, such as domestic wastewater treatment or organic industrial waste.
- Industrial certification is for those who work with physical/chemical treatment, such as pH adjustment, metals removal, etc.
- Certification in either of these areas is mutually exclusive of the other through Grade 4.
- The Combined certifications allows one to work in either area.

# What is Municipal Treatment?

- Municipal Wastewater Treatment deals with wastes from domestic sources such as residences, schools, hospitals, commercial establishments and industry.
- It is primarily a biological process, although there is some physical removal of materials that can not be treated biologically.
- Organic waste is broken down by billions of bacteria, which are ultimately removed as bio-solids.
- Treated water is disinfected before being discharged to the receiving streams, thereby protecting the health of downstream users.

# What is Industrial Treatment?

- Industrial Treatment is actually pretreatment of industrial wastes prior to discharging to a collection system (sewer).
- This is done to protect the municipal facility from harm that may be caused by the various pollutants found in industrial wastewater, such as extremes in pH, metals, materials that could interfere with the biological operation or pass-through untreated.
- Industrial treatment is physical/chemical removal of pollutants by screening, precipitation, and chemical reactions.

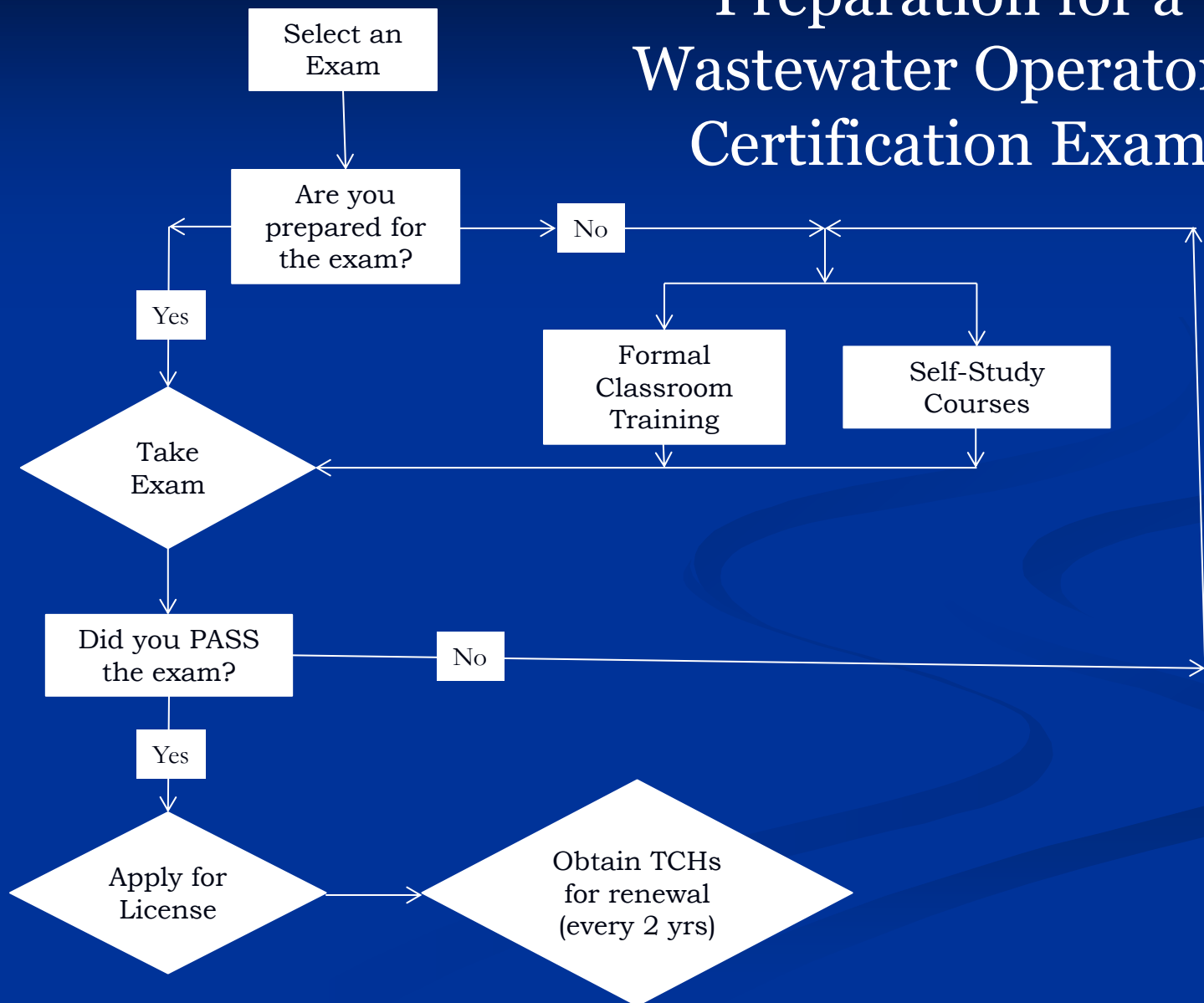


# What is a Combined Certification?

Combined certification, at Grades 5C and 6C, allows an operator to work in either municipal or industrial treatment facilities.

After working at the Grade 6C level for some time, operators may apply to the Board of Certification for Grade 7 status. This is the highest level in Massachusetts certification.

# Recommended Preparation for a Wastewater Operator's Certification Exam



# NEIWPCC Municipal Courses

## MUNICIPAL LICENSES

### Grades 1M-2M:

- Basic Wastewater Math (3 Sessions)
- Basic Operation of Municipal WWTP (6 Sessions)
- Basic Wastewater Laboratory Procedures (4 Sessions)

### Grades 3M-4M:

- Intermediate Operation of Municipal WWTP (3 Sessions)
- Advanced Math Review for Operators
- Municipal Wastewater Operation Review
- Process Control Laboratory

# NEIWPCC Industrial Courses

## INDUSTRIAL LICENSES

### Grades 1I-2I:

- Basic Wastewater Math
- Basic Industrial WWT (5 Sessions)
- Review for Industrial Certification Exams (Grades 1I-2I)

### Grades 3I-4I:

- Advanced Industrial WWT (3 Sessions)
- Advanced Pump Course

# NEIWPCC Combined Courses

- **Grades 5C-6C:**
- Advanced Operation of Municipal WWTP (3 Sessions)
- Advanced Math Review for Operators
- Review for Industrial Certification Exams (Grades 1I-2I)
- Advanced Pump Course
- Mass. Wastewater Management Program

# The Role of Math in the Exam

While the math involved in wastewater calculations is not very complicated, the formulae used are very specific to the industry.

Individuals who have not used math in many years would find the “Basic Wastewater Math” course to be helpful in refreshing math skills and also familiarizing them in the calculations used in the industry.

# The Exam Process

- Exams for the Massachusetts wastewater certification are developed by the Association of Boards of Certification (ABC).
- They are computer-based exams available at specific test centers, Monday through Saturday.
- Application for the exam is done through Applied Measurement Professionals (AMP) at [www.goamp.com](http://www.goamp.com)

# The Exam Process

Wastewater certification exams are multiple choice.

For both Municipal and Industrial exams:

Grades 1 & 2 exams are 50 questions each, with a passing grade of 66% or better.

Grades 3, 4 & 5C exams are 100 question each, with a passing grade of 65% or better.

Grade 6C exam is 100 questions with a passing grade of 70% or better.



# The Certification Process

Once the exam is passed, an application for certification is submitted to NEIWPCC, along with a copy of the test report and the administration fee.

This form can be found at:

<http://www.neiwpcc.org/training/training-docs/licenseapplicationWWTPO.pdf>

# The Certification Process cont'd

There are three categories of certification:

- When & If (W&I) – a person has passed the exam, but is not employed in the industry.
- Operator in Training (OIT) – a person has passed the exam and is working in the industry, but does not have sufficient experience for that grade level.
- Full Active – a person has passed the exam, is working in the industry and has sufficient experience for the grade level.

# Contacts

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# Resources

California State University, Sacramento  
<http://www.owp.csus.edu/>

Association of Boards of Certification  
<http://www.abccert.org/>

Water Environment Federation  
<http://wef.org/>

Royceu Continuing Education  
<http://royceu.com/Public/Default.aspx>

Skillworks, Inc.  
<http://skillworks.com/>