Becoming a Certified Wastewater Operator in Massachusetts

Updated October 2026

www.neiwpcc.org

Agenda/Overview

- About NEIWPCC
- Massachusetts Wastewater Operator Certification Types
- Offered Training Courses
- Testing and Certification Process
- Renewals

Who We Are

NEIWPCC [pronounced NŪ-Ē-PĬK] is a regional commission that helps the states of the Northeast preserve and advance water quality.

Mission

To advance clean water in the Northeast through collaboration with, and service to, our member states.

NEIWPCC's Role in Massachusetts Wastewater

- NEIWPCC administers the Massachusetts wastewater operator certification program on behalf of the Massachusetts Department of Environmental Protection (MassDEP).

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

Massachusetts Wastewater Operator Certification

Certification of Wastewater Operators (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.

For more information view the MassDEP regulation 257 CMR 2.00

The Certification Classifications

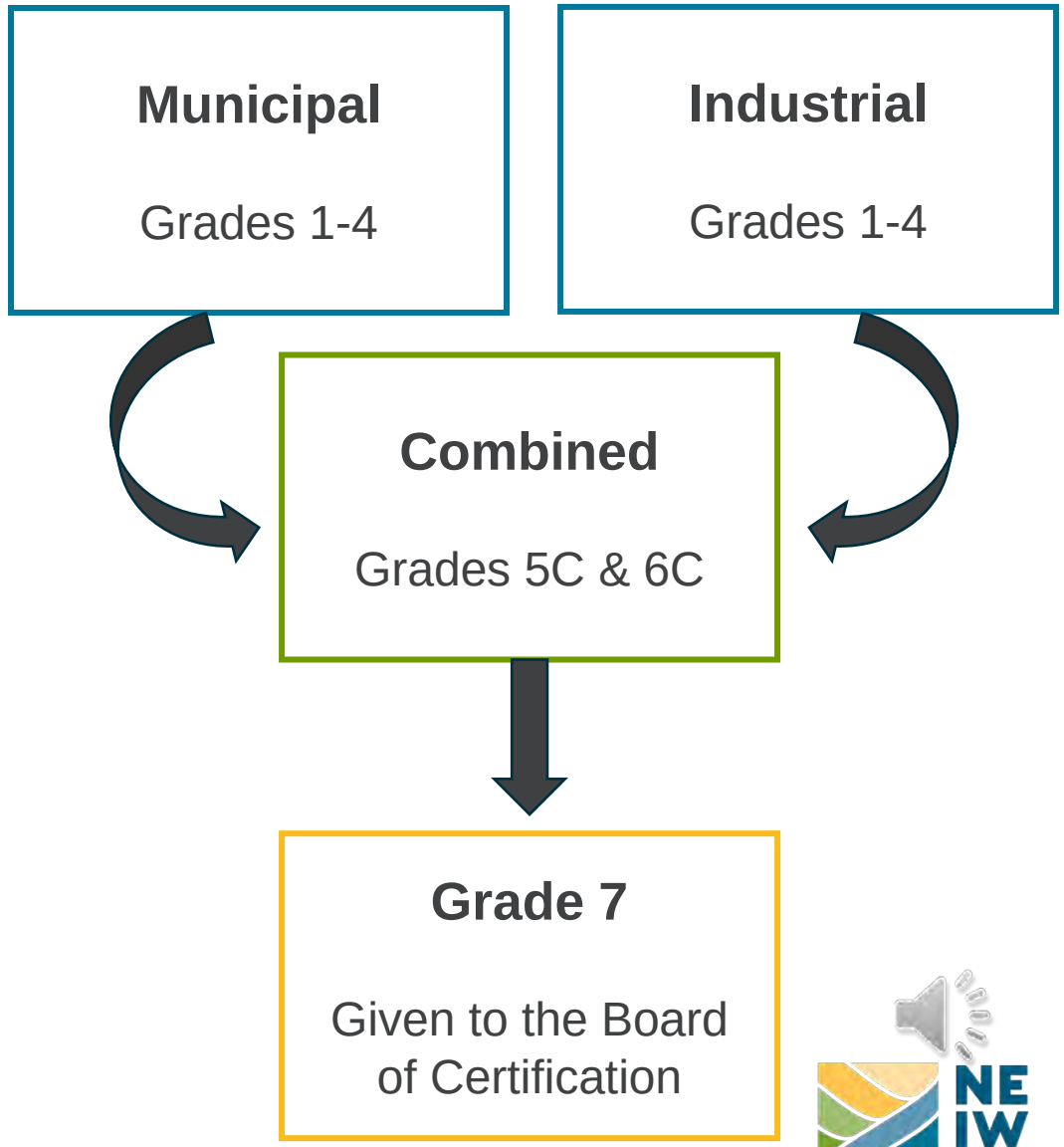
There are three categories of certification:

- **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.

Grades of Certification

There are 11 grades of certification in Massachusetts:

- Municipal (M) – Grades 1 through 4
- Industrial (I) – Grades 1 through 4
- Combined (C) – Grades 5C and 6C
- Grade 7 (C) – Given by the Board of Certification



Combined Certification (C)

- Combined certification, **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 my apply to the Board of Certification for **Grade 7** status. This is the highest level in Massachusetts 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.

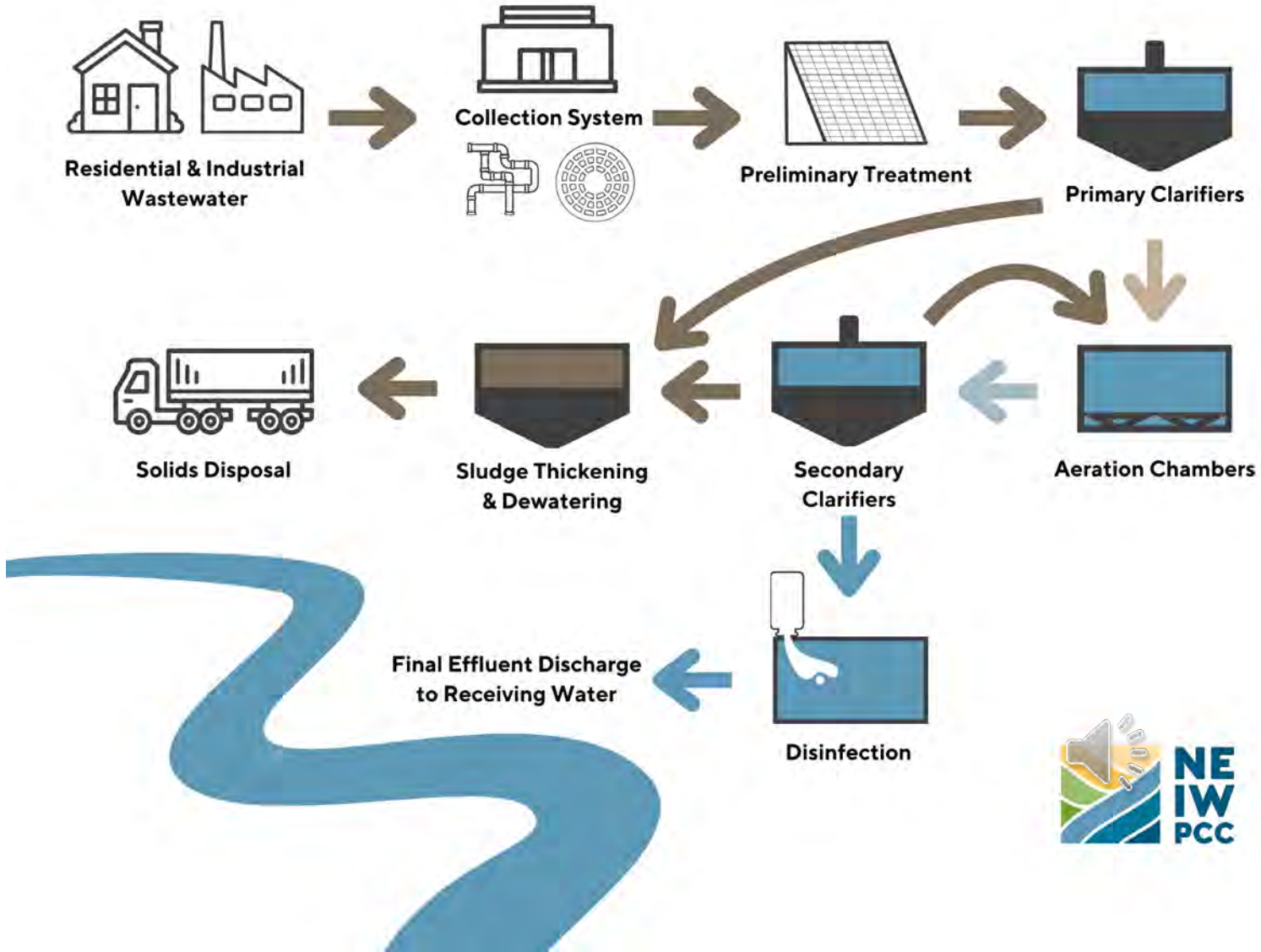
Industrial certification is for those who work with physical/chemical treatment, such as pH adjustment, metals removal, etc.

Certification in either of these categories is mutually exclusive of the other through Grade 4.

The Combined Certifications (5C, 6C and 7) allows one to work in either municipal or industrial treatment.

Municipal Wastewater Treatment

Municipal wastewater treatment deals with wastes from **domestic sources** such as residences, schools, hospitals, commercial establishments, and industry.



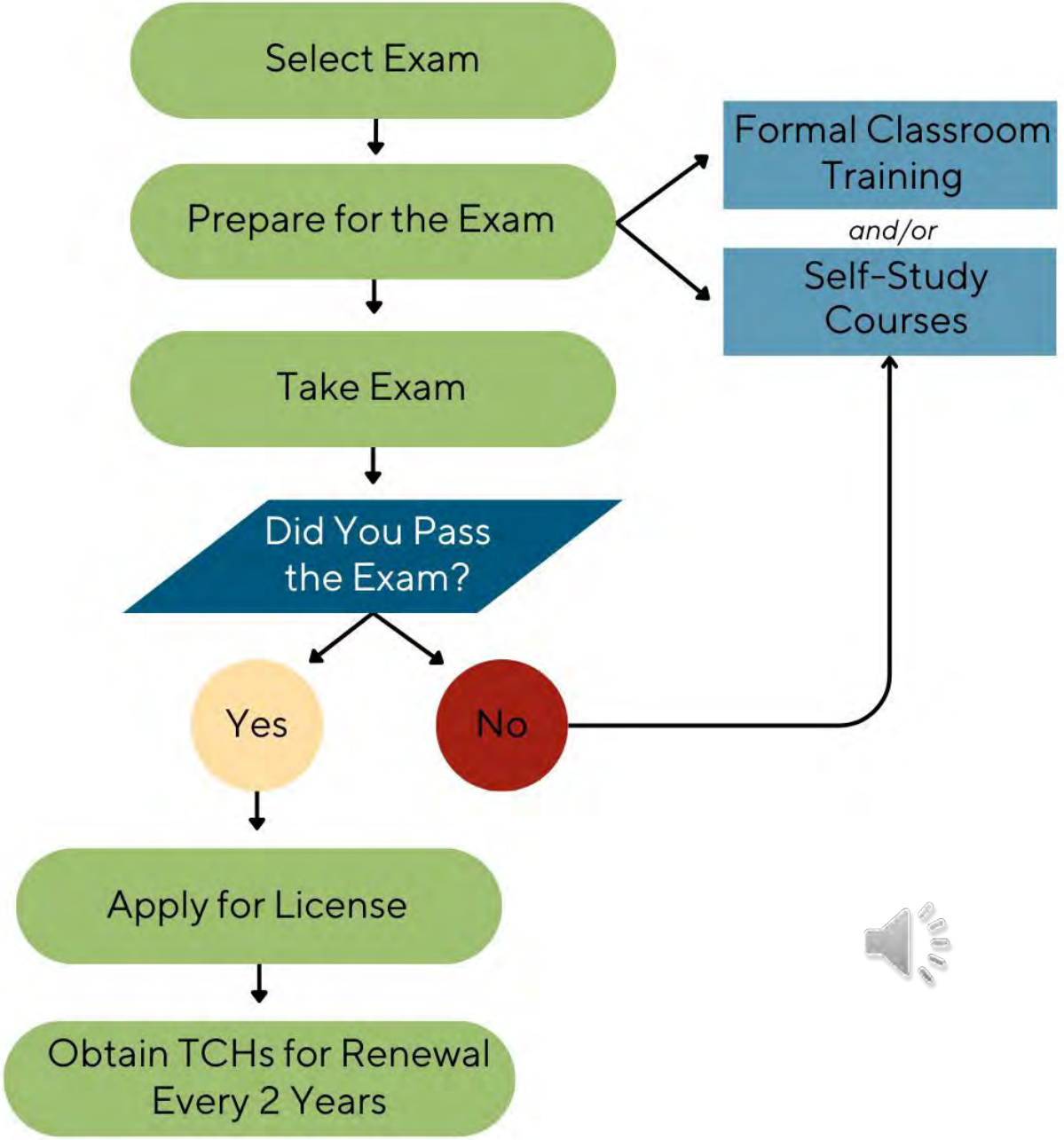
Municipal Wastewater Treatment

- 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 biosolids.
- Treated water is disinfected before being discharged to the receiving streams, thereby protecting the health of downstream users.

Industrial Wastewater Treatment

- Industrial Treatment is 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.

Recommended Preparation for a Wastewater Operator's Certification Process



NEIWPCC Municipal Courses for Exam Preparation

Grades 1M-2M

Class name	TCHs
Introduction to Municipal Wastewater Treatment	3
Basic Wastewater Math - Part I	3
Introduction to Collection Systems	3
Introduction to Water & Wastewater Laboratory	3
Basic Municipal Wastewater - Preliminary & Primary Treatment	3
Water Quality & NPDES Permitting	3
Basic Wastewater Math – Part II	3
Basic Municipal Wastewater - Secondary Treatment - Part I	3
Basic Municipal Wastewater - Secondary Treatment - Part II	3
Introduction to Pumps - Part I	3
Basic Municipal Wastewater - Disinfection	2
Introduction to Pumps - Part II	3
Massachusetts Wastewater Regulations & Certification Overview	2
Basic Municipal & Industrial Wastewater - Solids Handling	3
Wastewater Safety	3

Grades 3M-4M

Class name	TCHs
Introduction to Water & Wastewater Laboratory	3
Water Quality & NPDES Permitting	3
Laboratory Analyses - pH & Total Residual Chlorine	3
Basic Municipal Wastewater - Secondary Treatment - Part I	3
Basic Municipal Wastewater - Secondary Treatment - Part II	3
Introduction to Pumps - Part I	3
Laboratory Analyses - Biochemical Oxygen Demand & Dissolved Oxygen	3
Basic Municipal Wastewater - Disinfection	2
Introduction to Pumps - Part II	3
Massachusetts Wastewater Regulations & Certification Overview	2
Basic Municipal & Industrial Wastewater - Solids Handling	3
Laboratory Analyses - Bacteria	3
Intermediate Wastewater Math - Part I	3
Wastewater Safety	3
Intermediate Wastewater Math - Part II	3
Laboratory Analyses - Solids	3

View NEIWPCC Training Schedule and Registration: https://payments.neiwpcc.org/

NEIWPCC Industrial Courses for Exam Preparation

Grades 1I-2I

Class name	TCHs
Introduction to Industrial Wastewater Treatment	3
Basic Wastewater Math - Part I	3
Introduction to Water & Wastewater Laboratory	3
Basic Industrial Wastewater - Treatment Processes	3
Basic Wastewater Math – Part II	3
Basic Industrial Wastewater - Characteristics & Chemistry	3
Basic Industrial Wastewater - pH Neutralization	3
Introduction to Pumps - Part I	3
Introduction to Pumps - Part II	3
Massachusetts Wastewater Regulations & Certification Overview	2
Basic Municipal & Industrial Wastewater - Solids Handling	3
Wastewater Safety	3

Grades 3I-4I

Class name	TCHs
Introduction to Water & Wastewater Laboratory	3
Introduction to Pumps - Part I	3
Introduction to Pumps - Part II	3
Massachusetts Wastewater Regulations & Certification Overview	2
Intermediate Wastewater Math - Part I	3
Wastewater Safety	3
Intermediate Wastewater Math - Part II	3
Advanced Industrial Wastewater - Treatment Processes - Part I	3
Advanced Industrial Wastewater - Treatment Processes- Part II	3
Electricity, Motors, & Horsepower	3
Advanced Laboratory Procedures	3
Advanced Pumps & Hydraulics	3

View NEIWPCC Training Schedule and Registration: https://payments.neiwpcc.org/

NEIWPCC Combined Courses

Grades 5C-6C

Class name	TCHs
Water Quality & NPDES Permitting	3
Laboratory Analyses - pH & Total Residual Chlorine	3
Basic Industrial Wastewater - pH Neutralization	3
Laboratory Analyses - Biochemical Oxygen Demand & Dissolved Oxygen	3
Massachusetts Wastewater Regulations & Certification Overview	2
Laboratory Analyses - Bacteria	3
Intermediate Wastewater Math - Part I	3
Wastewater Safety	3
Intermediate Wastewater Math – Part II	3
Advanced Industrial Wastewater - Treatment Processes - Part I	3
Advanced Municipal Wastewater - Treatment Technologies	3
Advanced Industrial Wastewater - Treatment Processes- Part II	3
Advanced Municipal Wastewater - Activated Sludge	3
Electricity, Motors, & Horsepower	3
Advanced Laboratory Procedures	3
Advanced Municipal Wastewater - Process Control & Troubleshooting	3
Advanced Pumps & Hydraulics	3
Advanced Municipal Wastewater - Biological Nutrient Removal	3
Advanced Municipal Wastewater - Solids Handling	3
Advanced Municipal Wastewater - Administration, Management, & Finance	3

View NEIWPCC Training Schedule and Registration: https://payments.neiwpcc.org/

The Role of Math in the Exam

- Math involved in wastewater calculations is specific to the industry.
- NEIWPCC offers four math courses:
  - Basic Wastewater Math - Part I & II
  - Intermediate Wastewater Math - Part I & II

A new section of 8-inch diameter pipe is to be filled with water for testing. If the length of pipeline is 1,750 ft, **how many gallons of water** will be needed to fill the pipeline?

$$\text{Vol}, ft^3 = (0.785)(D)(D)(H) \times (conversion\ factor)$$

$$\text{Vol, gals} = (0.785)\left(8\ \cancel{in}\ \frac{1\ ft}{12\ \cancel{in}}\right)\left(8\ \cancel{in}\ \frac{1\ ft}{12\ \cancel{in}}\right)(1{,}750\ ft)\left(\frac{7.48\ gal}{ft^3}\right)$$

$$= (0.785)(0.67\ \cancel{ft})(0.67\ \cancel{ft})(1{,}750\ \cancel{ft})\left(\frac{7.48\ gal}{\cancel{ft^3}}\right) = 4{,}613\ \text{gal}$$

The Exam Process for Mass. Wastewater Certification

- The computer-based exams are available at PSI/AMP testing centers by appointment only.
- Schedule exam online or by phone through PSI.

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, submit an application for certification to NEIWPCC along with a copy of your test report and the administration fee.
- NEIWPCC will then issue your new Wastewater Operator credentials.

The Renewal Process

- NEIWPCC mails all active Massachusetts wastewater operators renewal invoices.
- Active operators are required to provide proof of 20 training contact hours (TCHs) during a given renewal period (i.e., January 1, 2026 – December 31, 2027).
- Renewal periods cover a two-year span coming to an end on odd number years (i.e., 2027, 2029).

NEIWPCC Contacts

For **training** related questions:

training@neiwpcc.org | 978-323-7929

For **licensing** questions:

renewals@neiwpcc.org | 978-323-7929

Resources

- NEIWPCC: https://neiwpcc.org/
- NEIWPCC Training and Registration: https://payments.neiwpcc.org/
- California State University, Sacramento: http://www.owp.csus.edu/
- Water Professionals International: https://www.gowpi.org/
- Water Environment Federation: http://wef.org/
- RoyCEU Continuing Education: http://royceu.com/
- Skillworks, Inc.: http://skillworks.com/
- CEU Plan: https://www.ceuplan.com/

Key Takeaways

1. First, understand which type of certification applies to the work you intend to perform; municipal, industrial, or Combined.
2. Second, identify the grade that matches your career goals and the level of responsibility you are pursuing.
3. Third, prepare for the certification examination using the available study materials and recommended training.
4. Fourth, schedule and successfully complete the required examination.
5. Fifth, submit the certification application and required documentation after passing the exam.
6. And finally, once you become an active operator, keep your certification current by completing the required training contact hours and renewing on time.