

Understanding the Pathway to Becoming Drinking Water Operator in Massachusetts

What is a drinking water operator? A drinking water operator is a licensed professional who works in a public water system’s distribution system or treatment plant ensuring that water supplied to customers meets all the regulatory requirements of the Safe Drinking Water Act. Community public water systems are required to have a primary and secondary operator, and many require other employees working in the water system to have a license as well.

What skills are desired in a water operator? A drinking water operator is responsible for protecting public health and safety by providing a safe supply of drinking water. Operators must have the ability to understand and comply with laws and regulations related to water supply. They must exhibit sound decision-making. They must have appropriate math skills. Mechanical aptitude is helpful in some positions. Minimum educational requirements are a high school diploma and higher-level licenses require some specialized training (see below).

What is the work environment like? Operator duties vary by water system. In smaller water systems, an operator might have to perform both distribution and treatment duties, while in larger systems, the work is usually more segregated. Distribution system operators are often out in the field working on pipes and pumps, they may take water samples and respond to emergency situations like water main breaks. Treatment plant operators’ work in plants monitoring the processes, adding chemicals, and making sure the treatment plant is running effectively. Some of the larger treatment plants run three working shifts.

What is the job outlook? The current workforce is aging, and a significant percentage is approaching retirement age. More openings are expected in the next 5-10 years. Water works associations often receive job postings for operator positions. Visit: www.masswaterworks.org/jobs and www.newwa.org/careercenter.aspx to view the latest openings.

Licensing: In Massachusetts, operators are licensed by the Board of Certification of Operators of Drinking Water Supply Facilities. There are 4 Grades of licenses for Distribution and Treatment, as well as licensing for operators of Very Small Water Systems or Vending Machine operators. To obtain a license, an interested candidate will need to take an exam. The Grade 1-4 exams must be taken sequentially (you do not have to apply for the license at each level, i.e. if you are interested in obtaining a Grade 4 Treatment license you have to take the 4 exams but you do not need to apply for and hold the Grade 2 license before you can take a Grade 3 exam). There are prerequisite course requirements that must be met prior to sitting for an exam for a Grade 2 or higher license. Operators who pass the exam may apply to the Board for the license, the Board may grant an “Operator in Training” or “Full” license depending on the applicant’s education and experience. See the following worksheet to help determine status:
<http://www.mass.gov/ocabr/docs/dpl/boards/dw/dwboiws.pdf>

DISTRIBUTION	Requirements	Where could you use the license
Very Small System (VSS)	No course requirements	Non-Community Public Water Systems or communities serving under 500 population
Grade 1 Distribution (D1)	No course requirements	Communities serving 501-1,500 population
Grade 2 Distribution (D2)	Must take a Board approved Distribution Course	Communities serving 1,501-15,000 population
Grade 3 Distribution (D3)	Must take a Board approved Distribution Course	Communities serving 15,001-50,000 population
Grade 4 Distribution (D4)	Must take a Board approved Distribution Course	Communities serving greater than 50,001 population

TREATMENT	Requirements	Where could you use the license
Grade 1 Treatment (T1)	No course requirements	Class I-T (determined by the complexity of the Treatment Process)
Grade 2 Treatment (T2)	Must take a Board approved Basic Treatment Course	Class II-T (determined by the complexity of the Treatment Process)
Grade 3 Treatment (T3)	Must take a Board approved Advanced Treatment Course	Class III-T (determined by the complexity of the Treatment Process)
Grade 4 Treatment (T4)	Must take a Board approved Advanced Treatment Course	Class IV-T (determined by the complexity of the Treatment Process)

Where can I take a Board-approved course?

- **Massachusetts Water Works Association** has approval from the MA Board of Certification for the three courses (Distribution, Basic Treatment and Advanced Treatment) and offers them in the spring and fall at various locations in Massachusetts, including Cape Cod Community College (Hyannis), Massasoit Community College (Middleborough Campus), and **online** in partnership with Springfield Technical Community College. MWWA also offers training for operators who are new to the field who need assistance in preparing for the Treatment Grade 1 (T1) or Distribution Grade 1 (D1) licensing exam, visit: www.masswaterworks.org
- **New England Water Works Association** has approval from the MA Board of Certification for the three courses (Distribution, Basic Treatment and Advanced Treatment) and offers them in the spring and fall at their training facility in Holliston, MA. They also offer training for operators who need assistance in preparing for the Treatment Grade 1 (T1) or Distribution Grade 1 (D1) licensing exam, visit: www.newwa.org
- **Bristol Community College** has approval from the MA Board of Certification for the Basic and Advanced Treatment courses. They offer courses at their Fall River campus, contact: BCC's Blue Center for Water Technologies, Professor Robert Rak, Environmental Science and Technology Coordinator, by calling 774-357-2771 or email Robert.Rak@bristolcc.edu.
- **Sacramento State** has approval from the MA Board of Certification for the Basic and Advanced Treatment courses. These are correspondence courses. An operator must take both the Volume I and Volume II courses before they are eligible to sit for the Treatment Grade 2 (T2) exam. Completion of both courses also allows the operator to sit for the Treatment Grades 3 & 4 exams. <https://www.owp.csus.edu/courses/drinking-water.php>

Exam Resources:

- www.abccert.org -- Associated Boards of Certification, developers of the distribution and treatment exams. While there, view the "Need to Know Criteria."
- www.goamp.com -- Applied Measurement Professionals, authorized to administer the Distribution and Treatment exams to Massachusetts operators. You will use this website to register for the exam. The computer-based exams are offered at PSI testing centers around the state. The cost of each exam is around \$100.

Want a glimpse into the water profession?

- Visit USEPA's Water Sector Workforce website and scroll to the link for "Water you Waiting for?" a brief video describing the career opportunities: <https://www.epa.gov/dwcapacity/water-you-waiting>
- Work for Water: <https://www.workforwater.org/>