How Do I Become an Operator in Colorado?

Almost everything you need to know about becoming an operator and maintaining your license in Colorado can be found on the Colorado Certified Water Professionals website and in Regulation 100. The Certification Board also has several written policies for how they evaluate exam applications, experience, reciprocity, and education. Got a question? The answer is likely in Regulation 100 or one of the policy documents.

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You can become certified as a water or wastewater treatment plant operator, industrial treatment plant operator, water distribution system operator, collection system operator, or small systems or transient water systems operator. Many operators hold more than one type of license. Treatment exams and certifications are classified as D, C, B, and A with the A license being the highest level attainable. Water distribution and collection systems certifications are classified as 1, 2, 3, and 4 with the Grade 4 certification being the highest level attainable. The small systems certifications are S licenses and are equivalent to holding both a D and a 1 in either “Water Treatment and Distribution” or in “Wastewater Treatment and Collection Systems”. Many people prefer the small systems (S) certification because of its flexibility; however, it does require more training units to renew than a single level 1 or D certification. One other certification type is available for transient drinking water systems; the T certification. Transient systems are small systems that don’t serve the same people on a regular basis. An example of a transient system might be a gas station with its own well.

All certification levels, except T, require a minimum amount (time) of hands-on experience before becoming eligible to take an exam. Up to half of the experience requirement may be met with education.

You can’t skip certification levels. Before you can take a C level exam, for example, you must already hold a D level license.

Note: You don’t have to be certified to work as an operator; however, the operator who is in charge and legally responsible for the facility (Operator-in-Responsible Charge or ORC) must be certified at a level equal to or higher than the facility classification. The more complicated and larger the facility, the higher the certification that will be required.

Looking for a position in water or wastewater in Colorado? Check out the classified ads on the RMWEA website. Many, if not most, positions will be posted here.
**Step 1 – Create Your Operator Account.** Visit the [CCWP website](http://ccwp.org) and create an account through the [CCWP Portal](https://portal.coloradocwp.com/). The portal tracks all of your work experience, education, and training classes attended. When you are ready, you’ll apply for certification exams and renew your licenses through the portal as well.

As soon as you create an account, you’ll be assigned an operator ID number. You’ll need this number to get credit for completing training classes. It is located under the “Profile” section of your CCWP account.

**Step 2 – Get Your Hands-On Operating Experience.** Hands-on operating experience is required before one is eligible to sit for a certification exam. A level 1 or D requires 30 days, a level 2 or C requires 2 years, a level 3 or B requires 3 years, and a level 4 or A requires 4 years. Up to half of the hands-on experience requirement can be met through education. Generally, this means science related college courses and/or approved water and wastewater training classes. When using training classes, nine hundred (900) hours of classes are equivalent to one year of hands-on experience.

Any experience requirement MUST be met by the application deadline. While you may be getting more experience between the application date and the exam date, it won’t count toward your application. Unsure whether or not you have enough experience and education to sit for an exam? Check out this handy [guide](http://ccwp.org).

Regulation 100 allows anyone applying for a Class D, Class 1, Class S, or Class T certification exam to attend an approved week-long training class in lieu of hands-on experience. The course must match the type of certification desired. Options include:

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<tr>
<th>Course</th>
<th>Sponsor</th>
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<tbody>
<tr>
<td>Fundamentals School</td>
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<td>Loveland</td>
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<tr>
<td>Intermediate and Advanced School</td>
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<td>Leadville Operator School</td>
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<td>Leadville</td>
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<tr>
<td>On-Line Drinking Water Short School</td>
<td><a href="https://www.indigowatergroup.com">https://www.indigowatergroup.com</a></td>
<td>On Demand</td>
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<td>On-Line Wastewater Short School</td>
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**Step 3 – Complete Regulatory Training.** Before anyone can sit for a certification exam or renew a certification, they must complete an approved regulatory course in the same discipline as their exam. This requirement went into effect on March 1, 2019.

The State of Colorado will be offering two free regulatory classes: one for drinking water and distribution systems and one for wastewater, industrial, and collection systems. Links to the courses are posted on the CDPHE website and at the bottom of the Indigo Water Group website. The drinking water and distribution systems course became available on 01/15/2020.

Similar regulatory courses may be available from different course providers and can be found by searching the CCWP course catalog at [https://portal.coloradocwp.com/External/Pages/CourseCatalog/Operator/CourseCatalogSearch.aspx](https://portal.coloradocwp.com/External/Pages/CourseCatalog/Operator/CourseCatalogSearch.aspx).

**Step 4 – Apply to Sit for the Exam.** Applications are submitted directly through your operator account on the CCWP website.

Exams are given year-round. Once you’ve applied to take an exam, your application will be processed within 10 business days. Once you’re approved, make an appointment to take the exam at any one of
the multiple testing sites around the state. The exam is given electronically at PSI test centers. Read more about the testing process and associated fees on the state fact sheet.

**Step 5 – Start studying!** The pass rates on the exams are not very high. The 2017 report from the Operator Certification Program Office to EPA puts passing rates between 38 and 61%. Many people walk into the exam unprepared or they freeze up when faced with an exam. Don’t let that be you! There are many great resources out there for preparing for certification exams. Here are some of our favorites.

- **Get Familiar with the Exam**
  - The Association of Boards of Certification writes the multiple choice exams given in Colorado and many other states. Visit their website at [http://www.abccert.org](http://www.abccert.org) to get the Need-to-Know Criteria list and a copy of the math formulas that you’ll be given in the front of the text booklet.
  - This is a closed book exam. You may bring a non-programmable calculator and a pencil.
  - Each exam consists of 100 multiple choice questions.
  - There is no penalty for guessing.
  - A score of 70% or higher is passing.

- **Training Classes**
  - Indigo Water Group offers both classroom style training and on-line training classes. Classroom courses are great for people who can assimilate a lot of material in a short period of time or who just need to brush up or hate reading or sitting in front of a computer. On-line classes let you work at your own pace and repeat information that isn’t clear. Plus, e-courses are always ready when you are and can be easier to fit into a busy schedule. We even have an app for taking on-line training on the go when you don’t have immediate access to the internet. The downside to on-line training is that you can’t ask the instructor questions very easily and you have to be able to self-motivate and stick to a study schedule. To ask Sidney a question, send her an e-mail at sidney@indigowatergroup.com. If you’re not sure where to start, give us a call at 303-489-9226 and we’ll help you figure it out.
  - Use the course catalog on the CCWP website to search for courses in your area.
  - There are a few websites that can be useful for finding upcoming training classes.
    - Indigo Water Group’s Calendar
    - CCWP Course Catalog
    - WaterOperator.org

- **Study Guides, Books, and Other Resources**
  - Free math workbooks and practice questions from Indigo Water Group.
  - **Water Environment Federation** books and study guides are AMAZING!
    - Fundamentals of Wastewater Treatment (on-line course too)
    - Laboratory Procedures for the Operator-Analyst
    - Study guides and practice questions
  - **American Water Works Association** books and study guides.
  - **ACR Publications** – We love Skeet’s books because the are filled with diagrams.
    - Pumps and Pumping
    - Introduction to Small Water Systems
- Operation of Distribution Systems
- O&M of Chlorine Systems
- FlashCERT!
  - State of Colorado Safe Drinking Water Regulations

**Step 6 – Schedule Your Exam.** Exam are administered by PSI. There are eight (8) testing locations within Colorado: Centennial, Colorado Springs, Durango, Englewood, Fort Collins, Grand Junction, Pueblo, and Wheat Ridge. Exams may be scheduled by calling one of the testing locations directly or through their on-line scheduling system. For more information visit [https://www.colorado.gov/pacific/cdphe/ccwp-certification-examination](https://www.colorado.gov/pacific/cdphe/ccwp-certification-examination)

**Step 7 – Continuing Education.** Once you have your certification, you must participate in a minimum number of approved training classes to maintain it. Certifications must be renewed every three years. The number of training hours you’ll need is based on the certification level you need to renew. A D or 1 level licenses requires 12 hours of training and an A or 4 level license requires 30 hours. At least one of the training hours must be an approved regulatory training course.

When you complete a training class, the instructor should upload your training units to the CCWP database. Ultimately, operators are responsible for making sure their training record is accurate and complete. Be sure to log in and verify your training classes have been reported correctly.

**Summary**

- Step 1 – Create your account.
- Step 2 – Complete 1 hour of regulatory training.
- Step 3 – Get your hands-on experience.
- Step 4 – Apply to sit for an exam.
- Step 5 – Find training classes and materials. Study, study, study.
- Step 6 – Schedule and complete your exam.
- Step 7 – Attend classes to get continuing education credits (training units) towards renewal.

**Unsure which water career is right for you?**

Check out these great videos that talk about the different license types and daily duties.

Video 1 – Water and Wastewater Careers – Exploring Possibilities
[https://www.youtube.com/watch?v=jRlXaGKp_V4](https://www.youtube.com/watch?v=jRlXaGKp_V4)

Video 2 – Water Supply and Treatment Careers (Operations)
[https://www.youtube.com/watch?v=9T1i0gL_wK8s](https://www.youtube.com/watch?v=9T1i0gL_wK8s)

Video 3 – Water Distribution Careers (Operations)
[https://www.youtube.com/watch?v=t-HWW8KetyA](https://www.youtube.com/watch?v=t-HWW8KetyA)
Video 4 – Wastewater Collection Careers (Operations)
https://www.youtube.com/watch?v=p0I_FBtgSdw

Video 5 – Wastewater Treatment Careers (Operations)
https://www.youtube.com/watch?v=z2NLOTSS-tM

Video 6 – Process Control and Laboratory (Operations)
https://www.youtube.com/watch?v=aXVqmFYT2nY

Video 7 – Water Utility Management and Infrastructure Career Insights
https://www.youtube.com/watch?v=W_vTYlqMv9M

Video 8 – Career Opportunities and Options – Working with Water
https://www.youtube.com/watch?v=zHNwdsRC9BM