

Operator Certification Program at a Glance

What it means to be a certified water or wastewater system operator:

Only an “appropriately certified operator” can make **process control decisions** at a water or wastewater system. An **appropriately certified operator** is an operator who holds a certificate of the same or higher class and with all the subclass (es) of the system at which they work or want to work. The classification of a system is determined by the hydraulic design capacity of the plant and the subclasses are determined by the treatment technologies used (see Table 1). A **process control decision** is any decision that *changes* or *maintains* water quantity or water quality of a water or wastewater system in a manner that may affect public health or the environment.

Becoming a certified operator encompasses the following:

- **Meeting education requirements** - The applicant must be at least a high school graduate, possess a GED or was working in a water or wastewater system before February 21, 2002.
- **Passing examination(s)** - To become an appropriately certified operator the applicant must pass the Part 1- General Exam and all the Part II - Technology Specific Exams that apply to the system at which they work or want to work. The certified operator could also take one of the stand-alone exams (see Table 2).
- **Meeting operating experience requirements** - An applicant must meet the appropriate work experience requirements for the class and subclass in which they would like to be certified. Applicants that currently work, or previously worked, at a system will be issued a license with a classification and subclassification based on that experience. Education can also supplement some of the experience requirement.
- **Applying for certification** – Once the necessary examinations have been passed, an applicant must complete and submit an application for certification to the State Board for Certification of Water and Wastewater Systems Operators with the appropriate fee. This application must also include a criminal history record report from the Pennsylvania State Police. The application must be presented to the Board for approval. If, and when, the application is approved, the applicant will be issued the appropriate operator certificate.

Summary of the certification process (Five steps):

1. The applicant registers for an examination:

An applicant for certification can take any examination. The Part I General Water or Wastewater examination covers all the knowledge, skills and abilities of any water or wastewater operator at any system regardless of treatment technologies. The Part II subclass examinations are technology specific. To register for an exam, the applicant must contact an Approved Examination Provider (AEP). Training, education or experience is not required to sit for an examination

Information on sources of training, approved courses, certification examinations, approved exam providers, examination locations and Board meeting dates, can be found on the DEP Operator Website:

<https://www.dep.pa.gov/Business/Water/BureauSafeDrinkingWater/OperatorCertification/Pages/default.aspx>. Information on DEP-approved training can also be found on DEP's Earthwise Academy, which can be accessed by clicking on the Education and Training section on the left menu or through this link: <http://www.earthwise.dep.state.pa.us/edu/>.

2. The applicant passes the required examinations

An applicant must pass the appropriate examinations to be considered for certification (see Table 2).

3. The applicant is sent their test scores and a certification application

If the applicant passes the required examinations for certification, the applicant is sent an *Application for Certification to Operate Water or Wastewater Systems* along with an examination pass letter. This application will also indicate the amount of money the operator is obligated to pay in order to obtain certification.

4. The applicant submits application, fees, and criminal history check

The applicant details his/her experience and education and obtains a Criminal History Check from the Pa. State Police. To qualify for certification, an applicant must meet minimum operating experience requirements (See Table 3). The applicant will need a criminal history report submitted with their application. The applicant can obtain this report electronically through the Pennsylvania State Police Website at <https://epatch.pa.gov/home>. This report must be dated within 90 days of the date the application is received by the State Board for Certification of Water and Wastewater Systems Operators.

5. Board Official Review

The State Board for Certification of Water and Wastewater Systems Operators reviews all applications deemed complete. If the applicant is qualified, the Board will officially approve the application and award the applicant the appropriate level of certification.

- All the certification requirements can be found on the operator website at <https://www.dep.pa.gov/Business/Water/BureauSafeDrinkingWater/OperatorCertification/Pages/default.aspx>

Table 1
Drinking Water and Wastewater Classes and Subclasses

DRINKING WATER		WASTEWATER	
CLASS	WATER SYSTEMS SERVING AN AVERAGE OF NOT MORE THAN:	CLASS	WASTEWATER SYSTEMS WITH A PERMITTED AVERAGE DAILY DISCHARGE FLOW EQUAL TO OR LESS THAN:
A	All water systems of any capacity	A	All wastewater systems with unlimited permitted discharge flows
B	Up to 5,000,000 Gallons/Day	B	Up to 5,000,000 Gallons/Day
C	Up to 1,000,000 Gallons/Day	C	Up to 1,000,000 Gallons/Day
D	Up to 100,000 Gallons/Day	D	Up to 100,000 Gallons/Day
E	Distribution or consecutive system	E	Satellite wastewater collection systems with pumping stations
Dc	Systems using disinfected groundwater only, and serving <500 people or <150 connections, whichever is less		
SUBCLASS	DESCRIPTION	SUBCLASS	DESCRIPTION
1	Conventional filtration	1	Activated sludge
2	Direct filtration	2	Fixed film
3	Diatomaceous earth filtration	3	Treatment ponds and lagoons
4	Slow sand filtration	4	Single entity wastewater collection systems
5	Cartridge or bag filtration		
6	Membrane filtration		
7	Corrosion control and sequestering		
8	Chemical addition		
9	Ion exchange and greensand		
10	Aeration and activated carbon adsorption		
11	Gaseous chlorine disinfection		
12	Non-gaseous chemical disinfection		
13	Ultraviolet disinfection		
14	Ozone disinfection		

Table 2
Wastewater and Drinking Water Examination Requirements

Classification	Part I General Exam	Part II Subclass Technology Specific Exams	Stand-Alone
Wastewater			
A, B, C, D	X	X	
E4 (Collection)			X
Drinking Water			
A, B, C, D	X	X	
E (Distribution)		X*	X
Dc (Small Systems)			X

* Only required for operators of distribution systems with some form of treatment.

Table 3
Drinking Water and Wastewater
Experience

Table 1

MINIMUM OPERATING EXPERIENCE TO BECOME CERTIFIED					
CLASS	High School Diploma or GED	DEP Approved Certificate Program in Water or Wastewater (CP)	DEP Approved Associates Degree Program in Water or Wastewater (ASP)	Associates Degree in Env'l or Physical Sciences or Engineering (AP)	BS/BA Degree in Biology, Chemistry, Env'l or Physical Sciences, or Sanitary or Env'l Engineering (BS/BA)
A	4 Years	2 Years	1 Year	3.5 Years	2 Years
B	3 Years	1 Year	6 Months	2.5 Years	1 Year
C	2 Years	6 Months	6 Months	1.5 Years	6 Months
D	1 Year	6 Months	6 Months	6 Months	6 Months
E	1 Year	6 Months	6 Months	6 Months	6 Months
Dc*	6 Months	0	0	6 Months	0
Dn*	6 Months	0	0	6 Months	0

*Class Dc and Dn only applies only to drinking water

Education/Experience Substitution

For individuals without a specialized degree defined in Table 1 (CP, ASP, AP, or BS/BA), up to 50% of the required experience can be substituted with education as follows (**the other 50% must be work experience**).

Education	Total Experience Allowance
Successful completion of every 10 hours of post high school or post GED training in water or wastewater treatment (as applicable) approved by DEP and determined by the State Board for Certification of Water and Wastewater Systems Operators (Board) to be applicable to the certification sought.	10 contact hours = 1 month = 1 CEU
Successful completion of a college course, from an accredited college or university, approved by DEP as specifically related to the water or wastewater disciplines. The Department will approve these courses in accordance with its training approval process guidelines.	1 college credit in DEP-approved water or wastewater treatment coursework = 1.5 months operating experience

Note: Education/Experience Substitution applies to new licenses and upgrades only. It does not apply towards reciprocity applications.

Maintaining certification

An operator certificate is valid for three years. Certified operators of drinking water and wastewater systems are required to complete continuing education in order to renew their certificates. Below is a list of the current continuing education requirements. Operators can use the Earthwise Academy to check their transcripts to see how many hours they have on record, search for potential approved training courses and to take on-line training courses for your continuing education credits. The link to the Earthwise Academy is <http://www.earthwise.dep.state.pa.us/edu/>

Operator Class	Training Hours Required First 3-Year Cycle	Training Hours Required for All Remaining 3-Year Cycles
A	15	30
B	15	30
C	15	30
D	8	15
E	8	15
Dc	4	9
Dn	3	6
Grandparented	8	15

This training must be **DEP-APPROVED** and **taken within the 3 year renewal cycle**. A course can be taken only once in a 3-year renewal cycle to meet the continuing education requirements. Extra hours cannot be “banked” to meet the requirements for a subsequent renewal cycle.

A certified operator will receive a renewal application in the mail approximately 70 days before their license is scheduled to expire. This application must be submitted with the application renewal fee in order for a certificate to be renewed. If an operator fails to complete the continuing education requirements within their renewal cycle or fails to submit the renewal application within two years of certificate expiration, the license is no longer valid, and the operator must apply for initial certification and re-take the appropriate examinations.

Who to contact with questions

- If you have additional questions regarding **Operator Certification**, contact the program staff at 717-787-5236 or RA-OperatorWebsite@pa.gov
- If you have questions regarding what **training** to take to prepare for the operator exams, or to complete the continuing education requirements, contact the Training Section at 717-787-9633 or WSTechTrain@pa.gov