

Instructions



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
STATE BOARD FOR CERTIFICATION OF WATER AND WASTEWATER SYSTEMS OPERATORS

EXAMINATION INFORMATION

- ▶ You may apply for and take any examination(s) without meeting the experience requirements prior to taking the examination(s).
- ▶ Approximately two weeks before an examination session, qualified applicants will receive an examination notification letter from the exam provider.
- ▶ **In addition to the exam provider fee, DEP charges \$35 per exam session which is invoiced when you receive your examination results from DEP.**
- ▶ Examination results will be mailed to the applicant approximately 15 days after the exam.

Part 1: Applicant Information

Complete all information as requested, including your CLIENT ID, if DEP has assigned one to you.

Part 2: Requested Class	Part 3: Examination Date & Site
Choose class based on the size system where you are employed or where you want to work (see definition of classes below).	Choose only one testing date and site for the examination.

Part 4: Certification Examinations (Mark appropriate boxes)**Water Examinations**

PART 1 – GENERAL EXAMINATION	The General Examination is required for Class A, B, C, or D certification. Note: To be certified as a treatment system operator, an applicant must pass the Part 1 General Examination and at least one of the technology specific subclass examinations (Part 2) and have obtained the required operating experience.
PART 2 – TECHNOLOGY SPECIFIC EXAMINATION	Certification subclasses based on the treatment process at your system or the system where you would like to work.
CLASS E – DISTRIBUTION SYSTEM EXAMINATION	Distribution System certification can be a standalone certification or combined with class A, B, C, or D. Class E certification can also be combined with subclasses 7 through 14 (if applicable to your distribution system).
Dc – SMALL SYSTEM EXAMINATION	Stand-alone certification for groundwater systems that serves <500 individuals or <150 connections and requires disinfection. OPERATORS MUST VERIFY THAT THEIR FACILITY QUALIFIES AS A Dc WITH THEIR DEP INSPECTOR. Class Dc certification cannot be upgraded without retesting.
Dn – SMALL SYSTEM EXAMINATION	Stand-alone certification for groundwater systems that serves <500 individuals or <150 connections and does not require treatment. OPERATORS MUST VERIFY THAT THEIR FACILITY QUALIFIES AS A Dn WITH THEIR DEP INSPECTOR. Class Dn certification cannot be upgraded without retesting.

Wastewater Examinations

PART 1 – GENERAL EXAMINATION	The General Examination is required for Class A, B, C, or D certification. Note: To be certified as a treatment system operator, an applicant must pass the Part 1 General Examination and at least one of the technology specific subclass examinations (Part 2) and have obtained the required operating experience.
PART 2 – TECHNOLOGY SPECIFIC EXAMINATIONS	Certification subclasses based on the treatment process at your system or the system where you would like to work.
CLASS E4 – SATELLITE COLLECTION	Satellite collection system with a pump station(s). Single entity owner collection system certification. This certification cannot be upgraded without retesting.

Guidelines on the average time to take each examination are in brackets next to each examination name on the test registration form. These are suggested time limits only. Examination sessions are limited to four (4) hours. Applicants may register for up to eight exams per session.

If you anticipate the need for a testing accommodation due to a disability, your written request must be submitted with your registration form. Written requests must contain the following: (1) a letter from a professional who has made an assessment of your disability, describing the way in which you would be best accommodated, and (2) a letter from you describing the requested accommodation. If you have questions, please contact the Board at 717-787-5236 or through PA AT&T Relay Services at 1-800-654-5984 (TDD).

For further information on the Operator Certification Program and the process for applying for certification, please refer to the Drinking Water and Wastewater Information Center at www.depweb.state.pa.us/operatorcenter.

DEFINITIONS OF CLASSES

WASTEWATER

Class A – Serving an average of more than 5 million gallons per day.

Class B – Serving an average of greater than 1 million gallons per day but less than or equal to 5 million gallons per day.

Class C – Serving an average of greater than 100,000 gallons per day but less than or equal to 1 million gallons per day.

Class D – serving an average of less than or equal to 100,000 gallons per day.

Class E – Satellite collection system with a pump station (combined with subclassification 4)

Class E

► **Collection system** – A system of pipelines or conduits, pumping stations and force or gravity mains used for collecting and conveying wastes to a point of treatment and disposal.

► **Satellite collection system** – A wastewater system consisting only of collection facilities with at least one pump station, which is designed to convey in excess of 2000 gallons per day of untreated wastewater to a wastewater system owned by a different entity.

WATER

Class A – Serving an average of more than 5 million gallons per day.

Class B – Serving an average of greater than 1 million gallons per day but less than or equal to 5 million gallons per day.

Class C – Serving an average of greater than 100,000 gallons per day but less than or equal to 1 million gallons per day.

Class D – Serving an average of less than or equal to 100,000 gallons per day.

Class E – Distribution and consecutive water systems.

Class Dc – Serving no more than 500 individuals or having no more than 150 connections, where the source of water for the system is exclusively groundwater and requires only disinfection.

Class Dn – Serving no more than 500 individuals or having no more than 150 connections, where the source of water for the system is exclusively groundwater and does not requires treatment.

Operators taking the Dc or Dn exam must verify their water system qualifies as a Dc or Dn with their DEP inspector, prior to taking these exams.

Class E

► **Consecutive water system** – A public water system that obtains all of its water from another public water system and resells the water to a person, provides treatment to meet a primary maximum contaminant level or provides drinking water to an interstate carrier. The term does not include bottled water and bulk water systems. If treatment is provided the examination for the type of treatment utilized must also be taken.

► **Distribution system** – Pipelines, appurtenances, devices and facilities that convey potable water under pressure to customers. If treatment is provided the examination for the type of treatment utilized must also be taken.

DEFINITIONS OF SUBCLASSES

WASTEWATER

Subclassification 1 (Activated Sludge) – A treatment technology that mechanically introduces air into wastewater to achieve microbiological suspended growth treatment such as extended aeration, sequential batch reactors, contact stabilization, conventional, step feed or oxidation ditch.

Subclassification 2 (Fixed Film) – A wastewater treatment technology that uses a fixed contact media to achieve treatment such as trickling filters and rotating biological contactors.

Subclassification 3 (Treatment Ponds & Lagoons) – A wastewater treatment technology that utilizes a pond, lagoon or wetlands with anaerobic or facultative biological processes for the treatment of wastewater and meets the following criteria: (i) A design hydraulic detention time in the treatment process of 15 days or greater; (ii) A biological treatment process that does not have any return activated sludge system and (iii) A biological treatment process that is impacted by diurnal fluctuations as a result of photosynthesis.

Subclassification 4 (Single Entity Collection Systems) – A wastewater collection system consisting only of collection facilities with at least one pump station which is designed to convey in excess of 2000 gallons per day of untreated wastewater to a wastewater system owned by a different entity.

Subclassification 5 (Laboratory Supervisor) - An individual having the knowledge, skills and abilities necessary to supervise laboratory procedures and the reporting of analytical data for an environmental laboratory operated by a wastewater system in accordance with industry, State and Federal standards. An operator must already be certified in wastewater treatment to add this subclassification.

WATER

Subclassification 1 (Conventional Filtration) – A series of processes for the purpose of substantial particulate removal consisting of coagulation, flocculation, clarification and granular media filtration. The clarification step must be a solid/liquid separation process where accumulated solids are removed during this separate component of the treatment system.

Subclassification 2 (Direct Filtration) – A series of processes implemented for the purpose of substantial particulate removal consisting of coagulation, and filtration. The term includes flocculation after coagulation but does not include sedimentation.

Subclassification 3 (Diatomaceous Earth Filtration) – A process for the purpose of substantial particulate removal, in which a precoat cake of diatomaceous earth filter media is deposited on a support membrane (septum) and, while the water is filtered by passing through the cake on the septum, additional filter media, known as body feed, is continuously added to the feed water, to maintain the permeability of the filter cake.

Subclassification 4 (Slow Sand Filtration) – A process for the purpose of substantial particulate removal by physical and biological mechanisms during the passage of raw water through a bed of sand at low velocity, generally less than 0.4 meters per hour.

Subclassification 5 (Cartridge or Bag Filtration) – A process for the purpose of substantial particulate removal by straining with bag or cartridge filters manufactured of various materials and pore sizes.

Subclassification 6 (Membrane Filtration) – A pressure or vacuum driven separation process in which particulate matter larger than one micrometer is rejected by an engineered barrier, primarily through a size-exclusion mechanism, and which has a measurable removal efficiency of a target organism that can be verified through the application of a direct integrity test. The term includes the common membrane technologies of microfiltration, ultrafiltration, nanofiltration and reverse osmosis.

Subclassification 7 (Corrosion Control & Sequestering) – A water treatment process designed to mitigate the adverse effects of corrosion in drinking water.

Subclassification 8 (Chemical Addition) – A water treatment process designed to improve the quality of the water being treated through the addition of chemicals such as lime, soda ash, caustic soda and permanganate.

Subclassification 9 (Ion Exchange & Green Sand) – A water treatment process such as greensand filtration, ion exchange, or activated alumina designed to improve the quality of water being treated by removal of inorganic constituents.

Subclassification 10 (Aeration & Activated Carbon Adsorption):

Aeration – A water treatment process designed to improve the quality of water being treated by introducing air or oxygen into water to remove undesirable dissolved gases, to remove volatile organic compounds or to oxidize inorganic compounds so they can be removed as particulates.

Activated Carbon Adsorption – A water treatment process designed to improve the quality of water being treated by using activated granular or powdered carbon to remove specific organic chemical compounds by adsorption.

Subclassification 11 (Gaseous Chlorine Disinfection) – A water treatment process designed to inactivate pathogenic organisms from water being treated utilizing gaseous chlorine.

Subclassification 12 (Nongaseous Chemical Disinfection) – A water treatment process designed to inactivate pathogenic organisms from water being treated utilizing nongaseous chemical elements or compounds.

Subclassification 13 (Ultraviolet Disinfection) – A water treatment process that inactivates pathogenic organisms using light with a wavelength range of 1000 to 4000 angstroms.

Subclassification 14 (Ozonation) – A water treatment process designed to inactivate pathogenic organisms from water being treated utilizing ozone.

Subclassification 15 – Laboratory Supervisor – An individual having the knowledge, skills and abilities necessary to supervise laboratory procedures and the reporting of analytical data for an environmental laboratory operated by a drinking water system in accordance with industry, State and Federal standards. An operator must already be certified in drinking water treatment to add this subclassification.

IMPORTANT NOTICE:

Please be aware that in addition to the fee you paid to the exam provider to sit for this examination, DEP is required to collect a separate fee of \$35 per exam session.

You will be required to pay the DEP exam session fee when you submit your application for certification to DEP, or when registering for your fifth examination session. If you have questions on your outstanding balance, please call 717-787-5236

