

Revised DW Module 1: General Overview – VOLUME I  
**Answer Key**

**Unit 1:**

**Noncommunity  
Nontransient or Transient**

*The distinguishing difference between nontransient and transient systems is that nontransient systems are serving the **SAME** people and transient systems serve different (transient) populations.*



What are some examples of a non-transient water system?

**ANS: Any business (office, school, hotel, factory) with at least 25 employees with its own water supply.**



What are some examples of a transient water system?

**ANS: Restaurant, campground, vacation resort with its own water supply.**



**Unit 1 Exercise**

Look at the following descriptions of water systems. Identify them as Community or Noncommunity. If Noncommunity, further identify them as Transient or Nontransient.

1. A hospital has its own private well and water treatment system.

**ANS: NTNCWS because it employs 25 of the same people at least 6 months of the year.**

2. A farmer has a good spring on his property and provides drinking water to 16 of his neighbors, free of charge.

**ANS: CWS because it has 16 service connections.**

3. A real estate developer drills a well and provides the water to the 17 homes in his development.

**ANS: CWS because it has 17 service connections.**

4. A restaurant with its own well supply has an apartment above that's connected to the restaurant's plumbing system.

**ANS: TNCWS because the restaurant serves a transient population.**

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## Unit 2:



What is an appropriately certified operator?

What is a process control decision?



An **appropriately certified operator** is defined as having a certificate containing the class and subclass(es) matching the class and subclass(es) of the system that they operate.



A **process control decision** is a decision, which maintains or changes the quality or quantity of water or wastewater in a water system that may affect the public health or environment.

Additionally, an appropriately certified operator must be available at all times during system operations.



*Available* means that an appropriately certified operator is on-site or able to be contacted in a timely manner to make process control decisions to protect the environment and the public health.



### Unit 2 Part 1 Exercise

Answer the next three questions.

1. What certificates would be needed to run a 1 MGD water system that requires treatment for copper (due to low pH) and uses conventional filtration with gaseous chlorination as a disinfectant?

**ANS: Class B, Subclasses 1, 7, 11**

How much experience would be needed for a person with only a high school diploma before the board would grant a certificate to make process control decisions at this plant?

**ANS: 3 years**

2. What certificates would be needed to run a 10 MGD water system that uses conventional filtration and non-gaseous disinfection?

**ANS: Class A, Subclasses 1 and 12**

How much experience would be needed for a person with an associates' degree in environmental science before the board would grant a certificate to make process control decisions at this plant?

**ANS: 3.5 years**

3. What certificates would be needed to run a groundwater system with 100 connections and 450 customers and treats with non-gaseous chemical disinfection?

**ANS: Class Dc**

How much experience would be needed for a person with only a high school diploma before the board would grant a certificate to make process control decisions at this plant?

**ANS: 6 months**



### Unit 2 Part 2 Exercise

Complete the following sentences by filling in the blanks.

1. Class B operators must obtain 15 hours of continuing education during their first renewal cycle and 30 hours during all subsequent renewal cycles.
2. Owners, operators, non-certified operators and maintenance staff can be prosecuted for failing to comply with the Drinking Water and Wastewater Systems Operators Certification Act.
3. A process control decision is a decision, which maintains or changes the quality or quantity of water or wastewater in a water system that may affect the public health or environment.
4. An appropriately certified operator is defined as an operator having a certificate containing the class and subclass(es) matching the class and subclass(es) of the system that they operate.

5. If an owner directs a non-certified operator to make a process control decision, who may be in violation of the Operator's Certification Act?
- a) Owner
  - b) Non-certified operator
  - c) **Both a and b**
  - d) Neither owner nor non-certified operator



### Unit 2 Part 3 Exercise

1. The barium level in your treated water has exceeded the MCL of 2 mg/L.
- a. Are you in violation?  
**ANS: YES**
  - b. Are you required to notify DEP within 1 hour?  
**ANS: YES**
  - c. Name the tier type of the public notice you must issue? (Options: Tier 1, Tier 2, or Tier 3 PN)  
**ANS: Tier 2 PN**
  - d. In what timeframe is this public notice required?  
**ANS: 30 days**
2. A groundwater under the direct influence of surface water (GUDI) source is subject to:
- a) Disinfection requirements
  - b) Filtration requirements
  - c) **Both (a) and (b)**
  - d) Neither (a) and (b)

3. A water supplier has one hour reporting to DEP for the following violations or situations:
  - a) All Tier 1 violations or situations
  - b) Most Tier 2 violations or situations
  - c) Any sample that requires a check sample.
  - d) **All of the above**
  
4. In a Tier 1 PN, how long should customers boil their water?
  - a) 30 seconds
  - b) **1 minute**
  - c) 2 minutes
  - d) 5 minutes

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### Unit 3



**Unit 3 Exercise** Using the tables in Unit 3, answer the following questions:

1. Does the Revised Total Coliform Rule Sample Siting Plan require routine and check sample locations?

**ANS: Yes**

2. Does the Lead and Copper Rule Sample Siting Plan require a certification that proper sampling procedures were used?

**ANS: Yes**

3. Are water suppliers required to keep a record of consumer complaints?

**ANS: Yes**

4. Does an Operation and Maintenance Plan include an explanation of start-up and normal operation procedures?

**ANS: Yes**

5. Does an Emergency Response Plan include corrective actions for probable emergency situations?

**ANS: Yes**

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6. Are water suppliers required to conduct a sanitary survey?

**ANS: Yes**

7. How long do you keep records of your public notices and PN certification forms?

**ANS: 3 years**