

2015 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.

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 2 MGD water system that requires treatment for copper (due to low pH), manganese and uses 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

Unit 3



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

1. Does the 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. When is a Stage 2 Disinfection Byproducts Rule Monitoring Plan due for a system that serves 12,000 people?

ANS: October 1, 2013

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

ANS: Yes

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

ANS: Yes

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

ANS: Yes

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

ANS: Yes

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

ANS: 3 years