

Operator Quiz Summer 2022 – Wastewater Characteristics

The following questions are designed for individuals/trainees pursuing certification as they prepare to take the ABC wastewater operator test. It is also designed for existing operators to test their knowledge. Each issue of *Clear Waters* will have more questions from a different process of wastewater treatment. Good luck!

1. Waste discharge requirements issued on a mass basis depend on pollutant _____.

- a. Concentration and flow rate.
- b. Concentration.
- c. Mass per liter of water.
- d. Mass per unit volume.

2. What is a sewer use ordinance?

- a. Laws that control discharges of wastewater to the sewer system.
- b. Laws that give authority to POTWs to require industrial pretreatment and to issue permits.
- c. Laws that allow POTWs to conduct inspections of industrial users.
- d. All of the above.

3. The acronym NPDES stands for National _____.

- a. Pollutant Discharge Elimination Service.
- b. Pollutant Discharge Elimination System.
- c. Permitted Discharge Elimination System.
- d. Permitting for Discharging Effluent System.

4. Solids loss over the weirs of a secondary clarifier will most likely lead to an increase in _____.

- a. Effluent pH.
- b. Skimmer speed.
- c. Chlorine demand.
- d. MLSS concentration.

5. The disinfection efficacy of chlorine _____.

- a. Decreases with time.
- b. Increases pH.
- c. Increases with TSS.
- d. Decreases with temperature.

6. What of the following is most used in toxicity tests?

- a. Trout.
- b. Large-mouth bass.
- c. Salmon.
- d. Minnows.

7. In the United States, as part of the national pretreatment program, plants with a design flow of more than _____ must have an industrial pretreatment program.

- a. 5 MGD
- b. 15 MGD
- c. 3 MGD
- d. 10 MGD

8. A sample with high _____ would have the most accurate result.

- a. Error and bias.
- b. Precision and accuracy.
- c. Dilution.
- d. Historical data.

9. What agency enforces requirements to ensure that industries pre-treat pollutants in their wastes in order to protect local sanitary sewers and wastewater treatment plants?

- a. OSHA
- b. EPA
- c. DOH
- d. DEC

10. In what year was the Federal Water Pollution Control Act amended?

- a. 1948
- b. 1776
- c. 1972
- d. 2022

Answers below.

For those who have questions concerning operator certification requirements and scheduling, please contact Carolyn Steinhauer at 315-422-7811 ext. 4, carolyn@nywea.org, or visit www.nywea.org.



Answers: 1. (a) Concentration and flow rate. 2. (d) All of the above. 3. (b) Pollutant Discharge Elimination System. 4. (c) Chlorine demand. 5. (d) Decreases with temperature. 6. (d) Minnows. 7. (a) 5 MGD. 8. (b) Precision and accuracy. 9. (b) EPA. 10. (c) 1972