

Operator Quiz Test No. 105 – Wastewater Potpourri

The following questions are designed for trainees 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 section of wastewater treatment. Good Luck!

- The main cause of most odors in wastewater systems is due to:
 - Hydrogen sulfide
 - Hydrogen peroxide
 - Hydrogen gas
 - Nitrous oxide
- Chlorination of waste streams is an effective means of odor control because:
 - Chlorine is very reactive and oxidizes many chemical compounds in water
 - Chlorine can destroy bacteria that can convert sulfate to sulfide
 - Chlorine can destroy hydrogen sulfide at the point of application
 - All of the above
- Ozone as a means of odor control may be disadvantageous because:
 - Ozone is a powerful oxidizing agent
 - Ozone is able to remove odors from air collected over sources of odor
 - Ozone can be manufactured onsite
 - The effective concentrations of ozone at large plants may be too costly to use
- A common means of phosphorus removal is:
 - Microorganisms in a state of endogenous respiration
 - Lime precipitation
 - Aluminum sulfate flocculation followed by precipitation
 - Hypochlorite dosing followed by precipitation
- What is the name of the bacteria that converts nitrite to nitrate during the nitrification cycle?
 - Nitrobacter
 - Nitrosomonas
 - Nocardia
 - Thiothrix
- Of the following, the most precise piece of lab equipment for measuring liquid would be:
 - Beaker
 - Graduated cylinder
 - Erlenmeyer flask
 - Volumetric pipette
- An effective velocity for a grit removal channel would be:
 - 1.2 feet per second
 - 0.3 feet per second
 - 2.1 feet per second
 - 3.0 feet per second
- The most commonly known disinfection byproducts found in water/wastewater treatment are:
 - Oxidized metals
 - Trihalomethanes
 - Phosphates
 - Weak organic acids
- What is the purpose of a vacuum relief valve on your anaerobic digester?
 - To add air to the digester
 - To remove excess air
 - To decrease the pressure
 - To prevent liquid from leaving the digester
- Using only a single aliquot from a bacteriological sample, the probability of accurately estimating the coliform density is
 - High - because of the sampling techniques involved
 - Low - because of the lack of an appropriate culture media
 - High - because of the refined analytical technique
 - Low - because of the distribution of bacteria in the sample

Answers:
1 A, 2 D, 3 D, 4 C, 5 A, 6 D, 7 A, 8 B, 9 A, 10 D



For those who have questions concerning operator certification requirements and scheduling, please contact Tanya May Jennings at 315-422-7811 ext. 4, tmj@nywea.org, or visit www.nywea.org/OpCert.