



Roy Pelletier

## Miscellaneous Wastewater Treatment Topics

- Which environment does filamentous bacteria like best?
  - Aerobic
  - Anaerobic
  - Facultative
  - Anoxic
- What does one cubic foot of water weigh at 4°C?
  - 7.48 lbs
  - 8.34 lbs
  - 3.14159 lbs
  - 62.4 lbs
- Which two age parameters are most similar to each other?
  - Gould Sludge Age (GSA) and Food to Microorganism (F/M) ratio
  - Sludge Retention Time (SRT) and Mean Cell Residence Time (MCRT)
  - SRT and GSA
  - GSA and MCRT
- Which of the following lines are not used in transporting wastewater from their source in a home to the treatment plant?
  - House sewers
  - Lateral sewers
  - Trunk sewers
  - Storm sewers
- Which formula is used to calculate the circumference of a circular tank?
  - $\pi r^2$
  - $\pi d^2$
  - $0.785 d^2$
  - $\pi d$
- What is the average velocity, in ft/s, in a 12-inch diameter pipeline carrying a daily flow of 2.5 mgd?
  - 4.94 ft/s
  - 3.86 ft/s
  - 0.21 ft/s
  - 5.80 ft/s
- What does H<sub>2</sub>S smell like at high concentrations?
  - Rotten eggs
  - Cabbage
  - No smell
  - Sweet orange
- Which practice is appropriate when working in a laboratory?
  - Carefully add acid to water.
  - Hold glassware in your bare hands while heating it.
  - Draw a sample into a pipette by mouth.
  - Carefully add water to acid.
- Which operating parameter is not common for a conventional activated sludge process?
  - Dissolved Oxygen (D.O.) between 1.0 to 2.5 mg/l.
  - SRT between 5 to 10 days.
  - Return Activated Sludge (RAS) to Q ratio about 50 percent.
  - F/M ratio between 0.1 to 0.15.
- What is the total length of weir for two 100-foot diameter secondary clarifiers?
  - 628 feet
  - 912 feet
  - 314 feet
  - 157 feet

Answers on page 66



### SEND US YOUR QUESTIONS

Readers are welcome to submit questions or exercises on water or wastewater treatment plant operations for publication in Certification Boulevard. Send your question (with the answer) or your exercise (with the solution) by email to [roy.pelletier@cityoforlando.net](mailto:roy.pelletier@cityoforlando.net), or by mail to:

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