



Certification Boulevard

Roy Pelletier



Test Your Knowledge of Distribution & Collection

- When a check valve is mounted in a pipe, which direction will the flow normally be allowed to travel?
 - In both directions.
 - In one direction only.
 - A check valve should never be installed in a pipe.
 - It will totally stop the flow from traveling in either direction.
- Which may be the most appropriate chemical to use in a wet scrubber treating high levels of ammonia?
 - Sodium hydroxide
 - Sulfuric acid
 - Unchlorinated water
 - Polymer
- Given the following data, what is the detention time in this 24-inch diameter force main?
 - 14,700 feet long
 - 3,000 gpm pump capacity
 - Pumping cycle is 6 minutes ON and 5 minutes OFF
 - 2 hours 4 minutes
 - 3 hours 31 minutes
 - 4 hours 5 minutes
 - 250 minutes
- What is the most important reason why pumps in a lift station should not experience frequent starts and stops?
 - Not enough time for the pumps to be primed.
 - Because of the power surge problems.
 - Ultimately will result in premature failure of the check valve assembly.
 - Ultimately will result in premature failure of the motor winding insulation.
- What is the term that defines waste leaking out of a collection system pipe into the environment?
 - Infiltration
 - Aliquot
 - Cavitation
 - Exfiltration
- Given the following data, how many cubic yards of backfill are needed to fill a trench?
 - 9.25 feet wide
 - 28 yards long
 - 6.5 feet deep
 - 62 yd³
 - 257 yd³
 - 959 yd³
 - 187 yd³
- Which gases may be found in sewer collection systems?
 - Explosive gases
 - Hydrogen sulfide
 - Methane
 - All of the above
- What is the minimum velocity in a sanitary sewer pipeline necessary to prevent settling of solids and debris?
 - 1 fps
 - 0.5 fps
 - 2 fps
 - 2 fpm

- Given the following data, what is the capacity of this wet well?
 - flow entering is 255 gpm
 - frequency and duration of flow is 5 minutes every 15 minutes
 - detention time is 1.75 hours
 - 169,280 gals
 - 8,925 gals
 - 4,464 gals
 - 0.0744 mg
- What is the pipeline called that is installed on the discharge side of a sewage pump?
 - Suction
 - Sump
 - Gravity
 - Force main

ANSWERS ON PAGE 58.

SEND US YOUR QUESTIONS FOR CERTIFICATION BOULEVARD

Do you have a question or an exercise you would like to feature in "Certification Boulevard?" We'll be glad to publish it. Just send your question (with the answer) or your exercise (with the solution) to:

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There is no limit to the number of questions or exercises you may submit. Please include your name, city, and organization or company so we can give you credit.