



## Operation and Maintenance Service Provider – Study Guide

Tests will not be reviewed with the applicant. If applicant protests specific questions, submit a letter of protest detailing the protest at the time of test completion.

This is not an open book test. A calculator will also be necessary. A passing score is 70%. Should you not pass the exam, you may retake the exam in 10 days. Should you not pass the exam on the second try, you will be charged an additional \$193 to take the exam each additional time beyond the second try.

**READ ALL INSTRUCTIONS & QUESTIONS CAREFULLY.** This exam is intended to be a comprehensive testing of your knowledge of State and Health District Onsite Sewage Systems rules, regulations and guidelines, and prudent operation and maintenance (O&M) practices. There are 20 true/false, 20 fill-in-the-blank, and 20 multiple choice questions with each question worth 1 point (60 points total). There are also 8 math questions with each one worth 5 points (40 points total). Math questions are related to volume calculations, pump delivery rate, programming a digital timer, and event counters and time lapse meter readings.

Here is a typical math calculation example:

“The pump was ran for exactly 2 minutes and the liquid level dropped from 78” to 82” as measured from the top of the riser. If the tank is 22 gallons per inch (per the tank manufacture), what is the pump delivery rate per minute?”

Most of the questions were taken from:

- Pressure system Recommended Standards and Guidance document (RS&G):
  - Section 2.3.2.7 (outlet baffle screen and filter)
  - Understand residual pressure requirements with a give lateral size
  - Section 3 (O&M requirements)
  - Understand the difference between Figures 3A and 3B
- Sandlined Trench RS&G
  - Section 4.3 (O&M requirements)
- Intermittent Sand Filter RS&G
  - Figure 2 (understand how a sand filter is assembled)
  - Section 4.3 (O&M requirements)
- Subsurface Drip systems RS&G
  - Section 3.7 (understand the proper location of each component in the system)
  - Section 4.2 (routine service requirements)
- WAC 246-272A, sections:
  - 0200 (2) (understand what a Service Provider can do without a construction permit)
  - 0210 Table IV (understand minimum horizontal setbacks)

- 0220 Table V (understand the relationships between soil types and soil textural classification)
- 0238 (understand the design requirements that facilitate proper O&M)
- 0270 (understand the property owners responsibilities related to O&M)
- 0275 (understand O&M for Food Service establishments)
- 0280 (understand what is required for the repair of failures)
- “Residential Onsite Wastewater Treatment Systems: An Operation and maintenance Service Provider Program” from the Consortium of Institutes for Decentralized Wastewater Treatment (CIDWT).
  - Pages 67-69 (siphons)
  - Pages 130-133 (UV light disinfection)
  - All math calculations from pages 188-191 and 201-206
- Chelan-Douglas Health District’s O&M Program specifics

External Resources: “Residential Onsite Wastewater Treatment Systems: An Operation and maintenance Service Provider Program” 280-page manual from CIDWT can be purchased from the Iowa State University here: <https://www-mwps.sws.iastate.edu/catalog/soil-air-water/residential-onsite-wastewater-treatment-systems>

- This is an excellent reference and the national “standard” for O&M programs.
- All of the state RS&G’s can be found at the Dept. of Health’s website.