

## Objective:

The objective of this four-day workshop is to provide training in the design, inspection, operation and maintenance of alternative on-site wastewater treatment systems as well as design, inspection, operation and maintenance of gray water systems (referred to as Level 3 certification) in support of the Utah Division of Water Quality mandatory certification program for on-site wastewater system professionals (R317-11: Certification to Design, Inspect, and Maintain Underground Wastewater Disposal Systems, or Conduct Percolation and Soil Tests for Underground Wastewater Disposal Systems).

The workshop includes classroom lectures and problem solving sessions and a field trip to the Huntsman On-Site Wastewater Treatment Training Demonstration Site on the campus of Utah State University in Logan. At the end of the workshop, the examination for Level 3 certification is given. This examination covers Utah regulatory requirements for design, inspection and maintenance of alternative on-site systems, the design of pressurized distribution systems, and the design of gray water systems.

The topics covered in the class include:

Overview of Utah Alternative Systems Program;

Gray Water Program;

At-Grade Systems;

Sand Lined Trench Systems;

Mound Systems;

Notes from the Field;

Packed Bed Systems (textile filters, peat filters, intermittent sand filters, recirculating sand filters, recirculating gravel filters, synthetic polystyrene filters, and synthetic open cell foam filters)

Hydraulics and Design of Pressurized Systems;

Disposal of Treated Wastewater from Packed Bed Systems;

Membrane Bioreactor Systems;

Management, Monitoring, Inspection, and Maintenance of Alternative Systems;

Treatment of High-Strength Wastewater

Resources:

Onsite Wastewater Systems Rule, R317-4, Utah Administrative Code;

Graywater Systems Rule, R317-401, Utah Administrative Code;

Wisconsin Mound Soil Absorption System: Siting, Design, and Construction Manual, #15.24, January 2000;

Utah Pressure Design Manual, Utah On-Site Wastewater Treatment Training Program, Utah State University, October 2021

Level 3 Class Manual