

4.5 Drip Distribution System

Revision: September 18, 2014

Installer registration permit: Complex

Licensed professional engineer required: Yes

4.5.1 Description

Drip distribution systems are comprised of a shallow network of thin-walled, small-diameter, flexible tubing with self-cleaning emitters to discharge filtered effluent into the root zone of the receiving soils. The drip system is flushed either continuously or noncontinuously depending upon the system design. Minimum system components include, but are not limited to, the following:

1. Septic tank
2. Pretreatment system (not required in grey water system designs):
 - a. Intermittent sand filter
 - b. Recirculating gravel filter
 - c. Extended treatment package system
3. Filtering system: cartridge or disk filters (flushable filter cartridge)
4. Effluent dosing system: pump tank and dose pump
5. Process controller: programmable logic controller (PLC)
6. Flow meter
7. Drip tubing network and associated valving

4.5.2 Approval Conditions

1. Drip distribution systems shall only be installed at locations that meet the criteria in the site suitability subsection of IDAPA 58.01.03.008.02 and 58.01.03.013 (section 8.1).
2. The effective soil depths that are established for the alternative pretreatment systems listed in section 4.5.1(2) may be applied to drip distribution systems when they are used in the system design.
3. All pressurized distribution components and design elements of the drip distribution system that do not have design criteria specified within section 4.5 shall follow the design guidance provided in section 4.19.
4. Pretreatment system design, installation, operation, and maintenance will follow the specific pretreatment system guidance provided in this manual.
5. System must be designed by a PE licensed in Idaho.

4.5.3 Design Requirements

The following minimum design elements apply to both continuous and noncontinuous flush drip systems:

1. Application areas up to 2 square feet per foot (ft²/ft) of drip irrigation line may be used.
2. Drip tubes may be placed on a minimum of 2-foot centers.