

4.28 Two-Cell Infiltrative System

Revision: December 10, 2014

Installer registration permit: Complex

Licensed professional engineer required: No

4.28.1 Description

Domestic sewage is discharged into a two-cell infiltrative system (TCIS). The cells provide sewage storage during wet seasons. The second cell provides very slow infiltration into the surrounding soils. Evaporation and more rapid infiltration occur during dry seasons, reducing the liquid volume and replenishing the cell's storage capacity.

4.28.2 Approval Conditions

1. Cells may not be placed within 100 feet of the owner's property line and may not be placed within 300 feet from a neighboring dwelling.
2. Bottom of the finished cells must meet the effective soil depths for a design group C soil.
3. Soil design group must be C or *unsuitable clays*.
4. Site must be located in an area of maximum exposure to the sun and wind.
5. Slope must not be greater than 6%.
6. System cannot be placed on fill.
7. Source of make-up water with a backflow prevention system between the source and TCIS must be readily available.
8. Lot size shall be at least 5 acres.
9. This design is for an individual residential dwelling with up to six bedrooms and is not to be used for commercial or industrial nondomestic wastewater.
10. In areas of Idaho where the precipitation exceeds evaporation by more than 6 inches, this design would be considered experimental.
11. A reserve area equal to the size of the second cell shall be required.

4.28.3 Design Requirements

1. The first cell is approximately 32,100 gallons at a liquid depth of 4 feet and should operate full or nearly full at all times.
2. If the water level of the first cell drops below 2 feet, make-up water is added to raise the water level up to the 2-foot minimum pool.
3. The second cell is approximately 51,000 gallons at a liquid depth of 4 feet, which provides 182 days or about 6 months of storage when this cell is dry.
4. Total minimum volume of both cells combined is 83,100 gallons at a liquid depth of 4 feet.