

PENNINGTON COUNTY PLANNING DEPARTMENT
MINIMUM DESIGN REQUIREMENTS FOR HOME WASTE
DISPOSAL SYSTEMS

1. **DESIGN:** In accordance with Administrative Rules of South Dakota, Article 74:03, Individual and small on-site wastewater systems.

Three (3) percolation tests must be done on all lots.

A soil profile hole to a depth of 4 feet beneath the bottom of the proposed system will be done to determine the presence of groundwater or bedrock.

2. **LOCATION:** DRAINFIELD must be installed so as to meet the following general guidelines: (This is not a complete list.)

Stay 10 feet inside property lines.

Stay 20 feet from buildings.

Stay 100 feet from surface water (high water line).

Stay 150 feet from a well with the top of the aquifer less than 100 feet deep.

Stay 100 feet from a well with the top of the aquifer more than 100 feet deep.

Keep at least 4 feet of soil separation between bottom of system and groundwater, including seasonal highs.

Keep at least 4 feet of soil separation between system and rock formations.

Stay out of areas subject to flooding.

3. **INSTALLATION:** To be done under the supervision of a certified installer.

**DO NOT BACKFILL UNTIL INSPECTED BY THE
PENNINGTON COUNTY FIELD INSPECTOR**

CONTACT
PENNINGTON COUNTY PLANNING DEPARTMENT
315 ST. JOSEPH STREET, RAPID CITY, SD 57701
(605) 394-2186

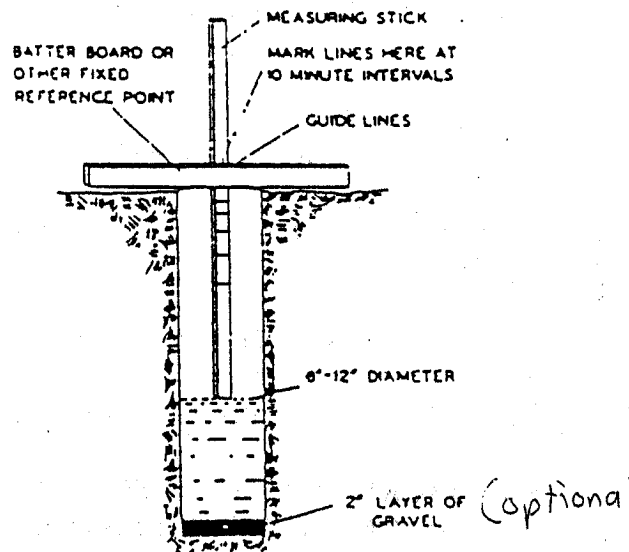
24 HOURS NOTICE IS REQUIRED FOR INSPECTION

Manner For Conducting Percolation Tests

A soil percolation test shall be made in at least 3 test holes within 5 feet of where the proposed absorption system or shallow wastewater system is to be located. The holes shall be randomly located in soil representative of and similar in character to the rest of the area where the system will be placed. An additional test hole shall be made to a depth of 4 feet beneath the bottom of the proposed absorption system, unless groundwater or bedrock is encountered first, to determine the type and depth of absorption system.

The horizontal diameter of the percolation hole shall be from 6 to 12 inches and the vertical sides shall extend to the maximum depth of the proposed absorption system or to a depth of at least 30 inches, whichever is greater.

Test holes shall be located in unfrozen soil and shall be filled at least 50 percent full with water for at least 8 hours but not more than 16 hours before making the soil percolation test. Immediately before making the test, each hole shall be refilled with water to at least 50 percent of its volume. When the water reaches the lower 25 percent of the test hole, the test shall begin. The percolation rate of a test hole shall be expressed in the number of minutes it takes the water level to drop 1 inch. The percolation rate for the area where the subsurface infiltration system is desired is the average percolation rate of all the test holes. The percolation tests shall be conducted for 2 hours unless the percolation rate is slower than 45 minutes per inch, in which case the percolation tests shall be run for at least 4 hours.



Soil percolation test.