Absorption Field

Properly constructed absorption fields do not require any maintenance, however the protection of your absorption field is critical. The following is a list of simple rules to follow regarding protection of your absorption field:

- A healthy, long-lasting and trouble free septic system is directly affected by what you put in it. Your septic system is not a dispose-all.
- Plant only grasses over the absorption field. Do not plant trees and shrubs over the absorption field as their roots may clog and damage it.
- Do not park or drive over any part of your septic system. This will compact the soil and damage your system.
- Effluent filters installed in your septic tank will help protect your absorption field from excess solids.
- All wastewater generated in your home (including wastewater from your washing machine, dishwasher, sinks, showers/bathubs and toilets) should flow to your septic system. All of these wastewater sources can contain disease-causing microorganisms and environmental pollutants.
- Divert all rain and surface water drainage systems away from your on-site septic system.
- Use water saving devices and repair any leaking plumbing fixtures immediately.
- Do not use caustic drain openers to unclog drains.
- Do not use septic tank additives or commercial septic tank cleaner chemicals.
- Use commercial bathroom cleaners and laundry detergents in moderation.
- Avoid dumping grease or fats down your kitchen drain.
- Keep paints, varnishes, thinners, waste oil, pesticides and other hazardous chemicals out of your system.

Water Conservation

Too much water can overload your system. Overloading is one of the most common causes of on-site septic system failure. The less water you use the better your system will work. Wastewater flow can be reduced greatly through the use of water conserving devices. Devices such as low-flow toilets or shower fixtures greatly reduce the amount of wastewater and will prolong the life of your septic system. Using too much water in a short period of time can also create problems. For example, as many as 53 gallons of wastewater can be discharged into your system with each load of laundry that you do. Laundry loads spaced throughout the week rather than all on one day will greatly reduce the stress on your septic system. Give your system a rest when you can.

An on-site subsurface septic system is a very simple treatment process and requires very little maintenance. However, as a homeowner with an on-site wastewater treatment system you must take an active role and learn how your system works to insure proper maintenance and operation are provided.

If you have any questions or need information regarding your on-site system contact your local DEQ office:

DEQ
OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL COMPLAINTS
AND LOCAL SERVICES DIVISION
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Oklahoma City, OK 73101-1677
(405) 702-6100
or 1-800-522-0206
Most Common Method

The most common method of treatment and disposal of wastewater in rural and suburban areas is through the use of subsurface on-site wastewater disposal systems, more commonly called on-site septic systems. Their popularity is due to their simplicity and construction cost.

Nationwide, more than 25 million homes and small businesses, almost 25 percent of the population, use on-site septic system to dispose of wastewater. According to the American Housing Survey for the United States, in 1993 of the four million new homes occupied, 1.5 million depended on on-site septic systems for treatment and disposal of wastewater.

Homeowners may not realize that owning a home with an on-site septic system, unlike homes connected to a public system, requires them to be responsible for maintenance and operation of their on-site septic system. This also requires that the homeowner has a basic understanding of how an on-site system is constructed and how it is supposed to function.

Components of On-site Septic System

On-site septic systems have two major components: (a) the septic tank, and (b) the subsurface absorption field.

Septic tanks are watertight and made of concrete, fiberglass, or plastic. Septic tanks have a minimum capacity of 1,000 gallons and are made in a variety of shapes (round, rectangular, short or long) to accommodate different sites. Septic tanks are designed to allow solids time to settle to the bottom so they will not be discharged into the subsurface absorption field.

The subsurface absorption field consists of a series of trenches 18-30 inches deep that contain perforated pipe surrounded by crushed rock, gravel or tire chips. The absorption field allows the effluent from the septic tank to be absorbed into the soil. (For more specific information on septic tank and subsurface absorption systems, see DEQ's Domestic Wastewater Management packet.)

Care:

On-site septic systems are a prime example of "out-of-sight out-of-mind," thus regular check-ups and maintenance are often neglected. Just like many household appliances or your automobile, on-site septic systems require periodic maintenance. If an on-site septic system is not properly maintained and operated, the life span of the system may be shortened and the owner may suffer the consequences of repair and/or replacement cost.

Septic Tank

Septic tanks should be pumped every 2-3 years to remove the natural accumulation of solids. If the amount of solids becomes too great, they will flow into and eventually clog the absorption field. When the sludge build up in your septic tank exceeds 25 percent of the total volume of the tank or the floating scum layer in the tank exceeds six inches, the tank needs pumped. To avoid damage to the tees or baffles, pumping should take place through the manhole of the tank, not through the inspection ports (see septic tank graphic). Commercial septic tank additives do not eliminate the need for periodic pumping and may be harmful to the absorption field. Also, when the septic tank is pumped the use of enzymes or chemical additives are not necessary after pumping. It will recover naturally.

Increasing amount of solids being put in your septic tank is another factor that will affect how often your septic tank should be pumped. Common scenarios that can cause this problem are: increasing the number of occupants in the residence or the use of a garbage disposal. The more people living in the home, the faster the solids build up in the septic tank. The use of a garbage disposal can increase the amount of solids in the septic tank by as much as 50 percent.

Minimize the use of a garbage disposal. If you plan to use a garbage disposal, it would be wise to increase the size of the septic tank by 20 percent. You may want to consult licensed septic tank cleaner to assist in determining how often your tank needs to be pumped.