



# Keep Your Septic System in Working Order

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People are usually on top of household maintenance activities such as termite-proofing, de-clogging gutters, fence maintenance, weed control and changing air filters. The question is: **Have you taken the time to schedule the next septic system inspection?** When homeowners are asked the last time they had their septic tank checked, the answers include: *only when I bought my house 10 years ago; sometimes; never!; do we have to?* and worse – *I am not sure if my house has a septic tank.*

An on-site septic system is a vital part of a house, yet it is rather odd that homeowners rarely think about its maintenance. A house that smells like sewer due septic system problems is not the right time to be thinking about maintenance. Taking care of your on-site septic system begins with the understanding of the system you have and the treatment capacity of your system.

There are five types of on-site septic systems ordinarily permissible in Oklahoma (refer to Extension Fact Sheet PSS-2913 for details). This Fact Sheet presents simple maintenance tips that apply to any type of system as well as suggestions for maintenance of particular systems.

## Maintenance Tips for All Systems

### 1. Know the installer.

Know the installer and request to be oriented to the functioning and maintenance of the system. Inquire if the septic system installation is covered by a warranty. If you bought a used house, determine if the warranty could be transferred. The installer will be familiar with the system, and you would know who call to for future maintenance and repairs.

### 2. Work within the daily treatment capacity of your system.

A family of four should not exceed the treatment capacity of a system designed to treat 400 gallons of wastewater per day. However, sometimes you may have visitors, causing the daily water use to possibly double. During these times, a homeowner needs to make adjustments. Examples of adjustments would be to postpone doing the laundry until your visitors leave or using disposable plates and silverware. Another strategy would be to stagger significant use of water. It would be unwise to use the bathtub, clothes washer and dishwasher at around the same time.

### 3. Be familiar with your system.

While conventional systems simply have a septic tank and subsurface lateral lines in a soil treatment area,

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other systems have multiple chambers with complicated electronic systems to control the aeration of a chamber as well as the rate and the timing of wastewater flow. Knowing how the systems works will provide you with some idea of the level of care and expertise needed to maintain your system. For example, if you have an aerobic treatment system with a spray application, you need to constantly treat your wastewater with bleach prior to surface-application to your yard. This keeps pathogenic microorganisms out of the yard where pets and children could go.

It would also help to keep in record a diagram of your tank, the location of the access ports and check wells, your drain field and repair area locations. It would even be better if you have markers of their actual locations in the field. Knowing the location of various components makes it easier to implement measures to protect them from being disturbed/destroyed and easier to locate them for maintenance/monitoring purposes.

### 4. Be aware of what NOT to put in your drain.

There are materials that, if disposed in the drain or toilets, may limit the functioning and the lifespan of your system. Grease and used cooking oils should not be poured into the kitchen sink drain. Solid materials such as sanitary napkins, non-biodegradable wipes, cigarette butts, disposable diapers and plastic wrappers should not be flushed in the toilets. Use of household chemicals such as bleach and other cleaning agents should be regulated. Pharmaceuticals, especially unused antibiotics, as well as pesticides, paint thinners, and solvents should never be disposed through the drain. They can adversely affect the microorganisms that help treat the sewage. As much as possible, kitchen refuse should not be disposed through the drain even if your kitchen sink has a garbage disposal.

### 5. Maintain the sprayfield/drainfield.

Properly maintaining the drainfield starts with knowing where the lines or nozzles are in your drain field. To ensure proper functioning of the soil in your drainfield, do the following:

- Maintain adequate grass cover over the drainfield. Deeply-rooted shrubs and trees should not be allowed to grow within the drainfield.
- Divert surface waters (runoff and water from gutters) away from the tank and drainfield.

- Keep heavy traffic like automobiles and heavy equipment off the drainfield.

**6. Have your septic tanks checked regularly.**

The best way to prevent overwhelming the septic tank is to monitor the amount of solid accumulated at least every six months. This can simply be done by dipping a long stick into the tank to measure the thickness of the accumulated solids at the vicinity of the outlet baffle. The tank should be pumped if the sludge layer has built up to within 25 to 33 percent of the liquid capacity of the tank. If the tank is not easily accessible, you may want to inspect and pump it according to the frequency guidelines in Table 1.

**Table 1. Estimated Septic Tank Inspection and Pumping Frequency in Years.** (Adapted from Mancl, 1984)

<i>Tank Size (gallons)</i>	<i>Number of People Using the System</i>				
	1	2	4	6	8
900	11	5	2	1	<1
1,000	12	6	3	2	1
1,250	16	8	3	2	1
1,500	19	9	4	3	2

**Other System-specific Tips**

**Low-Pressure Dosing System:**

- Have the pump system checked at least annually.
- Check the drainfield for areas that appear significantly greener than other areas (even during a drought). This could be a sign of blocked lines or a failed system.

**Evapotranspiration/Absorption (ET/A) System:**

- Make sure that grassy vegetation on top of the trenches is well-maintained.
- Divert surface runoff away from the location of the trenches.

**Aerobic Treatment Unit/System (ATU):**

- Within two years of installation, the installer is mandated to perform regular checks of your system. Be familiar with what is covered by the warranty/mandated inspections and make sure these are done.
- Listen to your system. You should hear the compressor running, indicating the equipment is forcing air into the aeration tank.
- Check chlorine levels often, making sure adequate chlorine (bleach) is present.
- Check for foul odor often. Foul odor (like rotten egg) could be an indication the system is not working properly.
- Check the nozzles/spray heads regularly. Faulty spray heads is a common problem with ATUs with spray irrigation.
- Mark the locations of the nozzles of sprayers to make sure that nothing heavy is sitting on it.
- Suggestion: Do not try to repair the system yourself. Enter into a maintenance agreement with a professional.

**Treatment Lagoon:**

- Be on the lookout for signs of leaks in the liner (e.g. the lagoon empties faster than expected).
- Make sure the fence completely surrounds the lagoon.
- Regularly check the earthen berm for any structural problems.

**References**

Mancl, K. 1984. Estimated Septic Tank Pumping Frequency. *J. Environ. Eng.*, 110(1): 283-285.

Oklahoma Department of Environmental Quality. 2011. On-site System Maintenance. [http://www.deq.state.ok.us/eclsnew/On-site/system\\_maintenance/mainpage.html](http://www.deq.state.ok.us/eclsnew/On-site/system_maintenance/mainpage.html). Accessed: June 2014

Seabloom, R.W., T.R. Bounds, and T.L. Loudon. 2005. Septic Tanks Text.in (M.A. Gross and N.E. Deal, eds.) University Curriculum Development for Decentralized Wastewater Management. National Decentralized Water Resources Capacity Development Project. University of Arkansas, Fayetteville, AR.

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