

SEPTIC SYSTEM USER NOTES

March, 1999

1. It is the homeowners responsibility to assure the proper soil stabilization of all areas disturbed during the septic system installation, particularly the disposal field. Failure to do so not only jeopardizes the proper function of the disposal system, but muddy runoff water from the improperly stabilized soils can become a significant source of pollution. Once disturbed soil areas have been seeded, limed, fertilized and mulched by the contractor, make sure they are watered so that they are moist enough to support the germination and establishment of vegetation. Don't chain dogs that might dig holes or install swing sets which will be heavily used by children on disposal fields. Once stabilized, light, limited activity is o.k. Avoid uses which will kill vegetation and create bare soils.

2. The use of a garbage grinder with a septic system is not recommended. Studies show that homes with garbage grinders average 30 percent more solids and grease generation than homes without garbage grinders. The Subsurface Waste Water Disposal Rules require that additional septic tank capacity, tanks installed in series or a septic tank outlet filter be installed if a garbage grinder is used. You should also have your septic tank pumped more often because of the increased generation of solids and greases which will cause your septic tank fill up quicker. If your system is not designed to accommodate a garbage grinder and you decide to have one installed, you should have a filter installed in your septic tank, at a minimum, and use the grinder sparingly. Composting is the preferred option for disposing of your garbage type wastes.

3. It is recommended that the homeowner install low volume toilets (1.6 gallons per flush or less) and other flow reducing fixtures such as low volume shower heads and faucets to minimize water use. A reduction in water use will usually result in extended life of your septic system, all other things being equal.

4. It is the homeowner's (septic system owner's) responsibility to limit water usage and wastewater generation so that the septic system design capacity (design flow on the septic system form) is not exceeded on any day. Activities which generate large amounts of wastewater, such as laundries, should be spread out over several days rather than doing a number of them on any particular day (typically Saturday for many working couples). Excessive use of a septic system on any one day can cause the system to fail even though your use, averaged out over a week or month, is below design volume. Your system will be stressed because more water will be generated than the soil can absorb and more solid particles will leave the septic tank than normal (systems are designed so that it takes about 48-72 hours for water to pass through a septic tank from the time it enters the tank. The faster water moves through your tank the less settling time there is and higher velocities of water can carry larger particles of solid matter. Under normal circumstances, a few particles leave the tank and enter the disposal field, eventually resulting plugged soil pores but the process can be greatly accelerated if too much water is used).

5. Do not connect floor or roof drains to a septic system. Your system is not designed to handle this water and it will likely cause premature failure.
6. Do not dispose of backwash from water softeners or water treatment devices in your septic system. Large amounts of water can be generated from these devices which can overload a septic system. In addition, chemicals used in these devices may be harmful to the biologic organisms which are important to the proper functioning of your system. It has been recently discovered that the iron removed from water by backflow devices can precipitate out in the sandy soil around your disposal field causing it to become very hard and cemented. This can cause your disposal field to become sealed requiring expensive repair or replacement.
7. Do not use powdered soaps or detergents as they contain a significant amount of fillers and emulsifiers which are detrimental to your septic system. Fillers can carry over to your disposal field and result in plugging up the soil pores. Emulsifiers can result in preventing greases and fats from coagulating and rising to the top of your septic tank (they then will stay in suspension and move out into the disposal field where they will plug up the soil pores). This is also true for very strong liquid soaps which should be avoided. Use only as strong a detergent as is necessary and only in the amounts needed (soft water does not require the same amount or strength detergent as hard water does). You want the grease to harden and rise to the top of the septic tank and not carry out into the disposal field.
8. Do not dispose of any hazardous or toxic substances in a septic system such as paint thinner, paints, varnishes, photographic solutions, pesticides, insecticides, organic solvents, degreasers or drain openers. Septic systems depend on living organisms to function properly. Toxic or hazardous substances can, in effect, "kill" the system and are a threat to pollute surface and/or groundwaters. They are also illegal to dispose of in this manner. Instead of using a commercial degreaser or drain opener, use one of the following:
 - A. A plunger or mechanical snake.
 - B. Pour 1 handful of baking soda and 1/2 cup of white vinegar down the drain pipe and cover tightly for one minute. Repeat as necessary; or
 - C. Pour 1/2 cup of salt and 1/2 cup of baking soda down the drain followed by 6 cups of boiling water. Let sit for several hours or overnight, then flush with water.
9. Do not dispose of any inert or non-biodegradable materials in your septic system such as disposable diapers, cat box litter, coffee grounds, cigarette filters, sanitary napkins, facial tissues and wet strength paper towels. They will not decompose and will therefore build up in your septic tank quickly. Some may pass through to your leach field and result in plugging it up. Also, minimize the use of toilet paper (which is a solid material) and use National Sanitation Foundation recommend paper which breaks down quickly.

10. Use a lint screen with your washing machine and maintain it regularly. If lint enters your septic tank it will not break down and may carry over to your drain field where it will plug the soil pores. If enough soil pores become plugged, disposal field failure will result and be very costly to repair. You may also install a filter on the outlet end of the septic tank to trap particulates, including lint fibers.

11. Do not dispose of fats or greases in your septic system (except for normal dish washing) unless your system has been specifically designed to handle them (an external grease trap). It is also recommended that greasy dishes be wiped before being washed to cut down on the amount of grease and fat entering the septic system. Generally, an internal grease trap is inadequate to handle any large amount of greases or fats.

12. Do not add any septic tank additive or cleaner to your septic system to improve its function or prolong its useful operating life (this includes yeast, horse manure and commercial products such as Rid-X). No effective product or material is recognized by State or National authorities and, in fact, many of these products will actually cause your system to fail prematurely. They add large amounts of organisms to your septic tank, which cause accelerated breakdown of solids, turning the sludge into a slurry which can then leave the tank and enter the disposal field, plugging it up. Chemical additives are prohibited for use in Maine.

13. Maintain your septic system by regularly having the septic tank pumped. Some biological breakdown of solids occurs in the septic tank but the rate of accumulation almost always exceeds the rate of biologic breakdown. If your septic tank is not pumped out often enough, solids and greases may build up to the point where there is insufficient storage and retention time for wastewater in the tank. When that happens, more solids leave the tank than are supposed to, resulting in the clogging of your disposal field and premature failure.

I recommend having your septic tank pumped or inspected after one year of use. The pumper or inspector can advise you of how often you need to have the tank pumped based on what he/she finds (typically, a septic tank should be pumped every two to five years). Keep in mind that you will have to adjust your pumping frequency to coincide with changes in the way you use your system. The more a system is used, the more frequently the tank should be pumped (as children grow into teenagers, water consumption typically increases).

When having your septic tank pumped or inspected, have the baffles inspected. It is particularly important to have the outlet baffle inspected as it is responsible for keeping greases and fats from moving to the disposal field. If the baffles are missing or in need of repair, they should be replaced or repaired immediately. Disposal field failure will occur if you don't have properly functioning baffles.

If your septic system is subject to great fluctuations in usage (heavy on weekends or for a few weeks in the summer) or you rent part or all of your dwelling, you may want to consider the use of a filter on the outlet end of your septic tank (if it does not already have one). The filter can help to control the passage of solids from the septic tank to the disposal field when wastewater surges occur or when you do not have direct control over the use of the system.

14. Do not drive over or store heavy materials on any part of your septic system unless it is specifically designed to handle heavy loads. Otherwise, crushed components may result and the system may fail.

15. Divert all surface water away from the septic tank, pump station (if used) and disposal field. If this is not done, the additional water may cause your system to prematurely fail. Roof areas which contribute runoff water to the septic system site should have gutters installed to divert that water to another location.

16. **PLEASE** - If you have any questions about your septic system or how to use it, call the site evaluator who designed it and ask for advice. You can also call your local plumbing inspector or the state agency responsible for regulating septic systems, the Plumbing Program in the Division of Health Engineering, at 287-5672.