

Necessary, Inc.

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Operation and Maintenance Guide for Low Pressure Dosed Trench On-site Sewage Facilities

The Septic Tanks

The primary compartment of your septic tank (or primary tank) receives all the sewage and wastewater from your household use of toilets, kitchen sink, garbage disposal, dishwasher, bathtubs, showers, clothes washers, and other plumbing fixtures. Solids will accumulate in the primary compartment of the septic tank. The "sludge" sinks to the bottom and the "scum" floats on the top. The secondary compartment of your septic tank (or secondary tank) allows for most of the suspended solids to settle out, providing a clearer effluent to the second tank, and then to the pump tank and disposal fields. Bacteria in the sewage digest the solids, but not as fast as solids are added. When a large amount of solids accumulate, they must be pumped out before they are introduced into the pump or the disposal field. Solids in the pump tank can cause pump failure, and in the disposal field they can clog the distribution piping, reduce the efficient distribution of effluent and may cause effluent overflow. Such conditions are a potential health hazard and are illegal. Costly repairs may result, as well as legal charges and fines. Therefore, the maintenance of the septic tank is very important. The tank should be pumped every two to three years by a licensed pumping service. The owner or owner's representative should be present when the tank is pumped to ensure that the solids as well as the liquids are pumped from the tank(s). No structures or driveways should be built over the septic tank(s), and no traffic should be allowed over the tank(s).

The owner should strictly limit the amount of non-digestible and hard to digest wastes introduced into the septic tank including but not limited to grease, colored toilet paper, sanitary napkins, tampons, coffee grounds, disposable diapers, paper towels, cigarette butts, photographic wastes, plastics, paints, varnishes, solvents, oils, pesticides, medical wastes, metals, and large amounts of solids generated by garbage grinders. NO MELON SEEDS should be allowed to get into the septic tank. The back-flush from water softeners should not be introduced into the septic tank or disposal field. Normal household use of soaps, detergents, bleach and other cleaning agents will not impair the functioning of the septic tank. However, "continual cleaners," such as those that hang in the toilet tank, or laundry detergent with chlorine bleach additives, are not recommended. Yeast or commercially available microbial preparations, while not harmful to the tank, will not enhance its functioning and are a waste of money.

A submersible pump delivers sewage effluent to the disposal fields. It is equipped with a float switch that turns the pump on and off, and another float switch mounted higher in the tank that will activate a high water alarm, should the pump fail. The alarm turns on a light or a buzzer, which should be checked daily. Please keep in mind that, in the event of a power failure to the house, neither the pump nor the

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alarm will function. The electrical connection for the pump and alarm should be kept free of ants, and protected from the weather.

The Disposal Fields

The disposal fields dispose of the effluent that is pumped into them by dispersing it into the soil. These fields must be manually switched by means of a valve. Simply switch the handle of the valve from one field to the other every six weeks to three months. Only your individual experience can dictate how often the fields should actually be switched, but four to six times per year is suggested for most households. The disposal fields must be kept vegetated and regularly mowed. It is suggested that the fields be over-seeded with winter rye in the fall to provide good transpiration (loss of water through plant respiration). No structures, sidewalks, patios, decks or driveways should be built over the disposal field, and no traffic should be allowed over the disposal field.

Water Conservation Tips:

- Leaky toilets and faucets can inundate an on-site sewage facility in a short time and cause its failure by overflow of sewage. Turn off the water supply to a leaking or dripping fixture until it can be fixed or replaced. If any toilets must be replaced, the new unit should use 1.6 gallons of water or less. Water can also be conserved by replacing showerheads with low water use models, and adding aerators to faucets.
- Check toilets periodically for leaks by adding food color to the tank. If there is a leak, the color will appear in the bowl without flushing.
- Scrape dishes before placing them in the dishwasher and wash only full loads. Water saving dishwashers are available which use about 1/3 the water used by conventional dishwashers.
- Wash only full loads of clothes if your washing machine does not have an adjustment setting for smaller loads. Wash clothes throughout the week, not all on one day. If the clothes washer is to be replaced, replace it with a front-loading washer. Water saving clothes washers are available which use about 1/3 the water used by conventional washers.
- Avoid running the water continuously while rinsing dishes or washing fruits and vegetables.
- Avoid running the water continuously while brushing teeth or shaving.