

ACT 537 – SEWAGE MANAGEMENT PROGRAMS

Treatment Tank Pumping Is Fundamental – Part I

Effective sewage management programs (SMPs) require the regular pumping of onlot system treatment tanks. In every type of onlot sewage system, one or more treatment tanks provide the first level of sewage treatment—called primary treatment. After wastewater enters the treatment tanks, the heavier solids sink to the bottom of the tank, and the lighter scum floats to the top of the wastewater. With the help of baffles and solids retainers, the treatment tanks are designed to keep solids and scum from leaving the tanks and entering the absorption area.

Pumping treatment tanks on a regular schedule to remove solids and scum that build up is critical to ensuring proper treatment tank operation and overall system performance. Although treatment tank pumping in itself is a relatively straightforward operation, municipalities will want to effectively address pumping in their SMPs to make sure it is administered properly and smoothly on behalf of their residents. This fact sheet will introduce the requirements of treatment tank pumping and explore how pumping should be conducted and managed as part of a municipality's SMP.

What do municipalities require with regard to treatment tank pumping?

The Pennsylvania Sewage Facilities regulation, 25 *Pa. Code* § 71.73(b)(2)(i), requires removal of septage or other solids from treatment tanks once every three years or whenever an inspection program reveals that the treatment tanks are filled with solids in excess of 1/3 of the liquid depth of the tank or with scum in excess of 1/3 of the liquid depth of the tank. This section of the Department of Environmental Protection's (DEP's) regulations, as well as others, is available on [The Pennsylvania Code](#) website.

In light of this requirement, most SMPs currently operating in Pennsylvania require pumping of treatment tanks once every three years. Some SMPs have reduced frequencies for treatment tank pumping, and other programs make allowances for treatment tank pumping in situations where low sewage flows are indicated. However, technically, these variations to extend treatment tank pumping must be confirmed through inspection programs that document the volume of solids and/or scum in the individual treatment tank.

In this same vein, it is possible for SMPs to base pumping frequencies on the solids and scum volumes measured individually in treatment tanks during tank inspection. In this way the required frequency of pumping can be adjusted to the specific needs of each treatment tank and property situation.

How do municipalities determine a pumping schedule?

Most SMPs in Pennsylvania do not attempt to have all the treatment tanks in their municipality or coverage area pumped out at one time. Rather, they stagger pumping to better distribute and control the number of tanks to be pumped in any given year. Since most management programs opt to require pumping every three years, most programs also divide their coverage areas into districts and so apportion the pumping by district across the three-year interval. For many programs this means simply dividing the coverage area into three pumping districts and requiring pumping in one district each year.

There are many formulas and criteria that SMPs have used to establish pumping districts. Most programs establish contiguous districts using natural and/or political boundaries as dividing lines. This type of districting serves to concentrate pumping efforts, which can make pumping easier for septage pumpers to accomplish.

However, some management programs have structured districts based on other specific criteria suitable to their needs. For example, one rural SMP faced difficulty finding useable boundaries and so chose to divide its districts by street numbers. (Properties having street numbers ending in 0, 1, or 2 are in district one, properties with street numbers ending in 3, 4, or 5 are in district two, and properties with street numbers ending in 6, 7, 8, or 9 are in district three.) This arrangement has not adversely affected the ability of septage pumpers in the area and is easy for property owners to remember.

Some programs have established one or more districts around critical sewage needs areas and have addressed those districts first. Others have sought to balance numbers of onlot systems and associated treatment tanks to be addressed in each district. Still others have sought to target easier districts the first year and address more numerous or difficult districts in years two or three once the program is more experienced. With so many possible ways to distribute treatment tank pumping, a municipality must decide what will work best based on its individual situation and needs.

How is pumping conducted?

Most SMPs in Pennsylvania administer treatment tank pumping by notifying property owners of the requirement to pump their treatment tank(s) and then obligate the property owner to individually contract with a commercial septage pumper to have the pumping conducted. In most cases either the septage pumper or the property owner is required to submit to the management program a written invoice or manifest documenting that the pumping of the treatment tank(s) associated with the onlot system at that property was completed.

Alternately, some management programs contract directly with one or more septage pumpers and direct pumping of treatment tanks with particular systems and properties according to the management program's schedule (or other criteria they may appropriately establish). The septage pumper(s) then coordinates directly with the management program to document the completion of tank pumping. In these situations, the property owner is notified that pumping of his or her treatment tank(s) is to be conducted.

A third option would be for a SMP to purchase its own pumping equipment and conduct treatment tank pumping using qualified in-house staff. This option has, thus far, been practiced only rarely in Pennsylvania. Any cost for operation and maintenance conducted directly by the SMP would not be eligible for reimbursement under DEP's Sewage Facilities Act Enforcement Reimbursement program, which annually reimburses costs associated with the staffing and administration of SMPs. Such costs would instead have to be defrayed through fees charged to property owners or by other appropriate means.

Additional information on good practices and rules of thumb to help administer and make treatment tank pumping a successful part of an SMP can be found in "*Treatment Tank Pumping Is Fundamental - Part II (3800-FS-DEP4343).*"

For more information, visit www.dep.state.pa.us, keyword: Sewage or click on "Regional Resources."