

Decommissioning of Large Subsurface Treatment Systems

Requirements and Procedures

Purpose

The purpose of this fact sheet is to describe regulatory requirements and provide guidance for the decommissioning of Large Subsurface Treatment Systems (LSTS).

These requirements may include (but are not limited to):

- removal and disposal of biosolids
- proper demolition, capping, and elimination of treatment components
- sealing/capping of any groundwater monitoring wells

Permittees with a LSTS that are eliminating the use (either through replacement with a new treatment system, or closure of the treatment system altogether) **cannot abandon the LSTS “as is”**, due to potential safety, environmental and human health hazards. Contaminated material and biosolids contain a number of pollutants, nutrients, and pathogenic organisms that must be handled properly before abandoning or re-using the structure.

When are LSTS Decommissioned?

After domestic wastewater LSTS cease to receive wastewater for treatment and all the flows are conveyed to another facility.

Rules and Regulations that Apply

- Minn. R. 7080.2500 - Individual Subsurface Sewage Treatment Systems: System Abandonment rule
- Septage and/or biosolids disposal
 - SDS Permit requirements for the facility
 - Minn. R. 7080.2450, subp. 6 – Septage Disposal
 - 40 Code of Federal Regulation [CFR], ch. 503 *Standards for the Use of Disposal of Sewage Sludge*. This rule covers the options for the use or disposal of biosolids that are based on risk assessments done by the Environmental Protection Agency. This rule forms the basis of Minn. R. ch. 7041 for land application.
Minn. R. ch. 7041 – Biosolids Management Rule. This rule covers biosolids that are applied to the land for treatment and beneficial use. It also applies to the biosolids in a lined wetland, filter, or other lined basin once it ceases to receive wastewater.
- SDS Permit requirements for the facility – Total Facility Requirements (SDS), Facility closure.
“The Permittee is responsible for closure and post-closure care of the facility. The Permittee shall notify the MPCA of a significant reduction or cessation of the activities described in this permit at least 180 days before the reduction or cessation. The MPCA may require the Permittee to provide to the MPCA a facility Closure Plan for approval. Facility closure that could result in a potential long-term water quality concern, such as the ongoing discharge of wastewater to surface or ground water, may require a permit modification or reissuance.

The MPCA may require the Permittee to establish and maintain financial assurance to ensure performance of certain obligations under this permit, including closure, post-closure care and remedial action at the facility. If financial assurance is required, the amount and type of financial assurance, and proposed modifications to previously MPCA-approved financial assurance, shall be approved by the MPCA. [Minn. Stat. ch. 116.07, 4]"

- Minn. R. ch. 4725 – Wells and Borings. This rule addresses the abandonment of wells.
- Minn. R. ch. 7035 – Solid Waste Rules. This rule addresses land filling biosolids and other contaminated material.
- Minn. Stat. § 115.55, subd. 6 – Disclosure of subsurface sewage treatment system to buyer.

Closure Process

When planning to decommission a LSTS, contact all parties that are involved in the process. This is particularly important when a LSTS has components like lined filters or constructed wetlands. Persons involved in the process are the consulting engineer, wastewater operator, septage pumper/hauler, Type IV operator, the permittee's administrative personnel, and the MPCA engineer.

The permittee will be required to submit a closure plan as required in their permit and have MPCA approval prior to beginning any work. The closure plan should itemize all treatment components, equipment, and other items and what will be done to decommission and dispose of them. The plan shall include, but is not limited to:

- A list of all treatment facility components to be removed
 - How all wastewater and biosolids (liquid and solid) will be removed and disposed of.
 - All electrical devices and devices containing mercury are removed
 - All underground sewage tanks crushed and filled with soil or rock material, removed or disposed of off site.
 - Removal and disposal of contaminated materials (including pipe, liners, wood, other materials). See Disposal section.
 - All underground cavities crushed and filled with soil or rock material.
 - Monitoring wells properly sealed according to Minn. Stat. § 1031.301 and Minn. R. 4725. Submit copy of closure forms.
 - Any other system components
- Timeline/schedule for each action
- Future discharge to system permanently denied.
- A map including the location of building sewer, septic tank(s), soil dispersal system, cesspools, seepage pits, and other pits. Also include a permanent reference point and dimensions.

When connecting to another WWTP, the receiving facility may be required to submit an application for a sewer extension permit.

Disposal

If soil treatment and dispersal systems are removed, contaminated materials shall be properly handled to prevent human contact. Contaminated materials include distribution media, soil or sand within three feet of the system bottom, distribution pipes, tanks, and contaminated soil around leaky tanks. Contaminated material also includes any soil that received sewage from a surface failure. Contaminated materials must be disposed of according to items A to D (Minn. R. 7080.2500, subp 3).

- A. Contaminated materials disposed of off-site must be disposed of according to part 7080.2450, subpart 6.
- B. If contaminated material is to be spread or used on-site within one year of contact with sewage, the material must be placed in an area meeting the soil and setback requirements described in part 7080.2150, subparts 2, item F, Table VII, and 3, item C, and the material must be covered with a minimum of six inches of uncontaminated soil and protected from erosion. After one year following contact with sewage, the material is allowed to be spread in any location meeting the setback requirement of part 4725.4450, covered with a minimum of six inches of uncontaminated soil, and protected from erosion. After one year

following contact with sewage, the material is allowed to be used to fill in the abandoned in-place sewage tanks.

- C. Contaminated pipe, geotextile fabric, or other material must be dried and disposed of in a mixed municipal or industrial solid waste landfill that will accept these waste types. This includes any non-concrete building materials.
- D. The person or business abandoning the system must complete and sign a record of abandonment that states the system was abandoned according to Minn. R. 7080.2500 and any local requirements. The [SSTS Abandonment Reporting Form](#) can be used to provide this abandonment information to the local unit of government. The record must be sent to the local unit of government within 90 days of abandonment.

Photo documentation of the work as it progresses should be collected and submitted to the MPCA

Septage and biosolids disposed of off-site must be disposed of according to the requirements in the Permittee's discharge permit.

Final inspection

Once all of the facility closure actions are complete, a final inspection by Minnesota Pollution Control Agency shall be requested to ensure that the work was completed in compliance with regulations. Submit a copy of the [SSTS Abandonment Reporting Form](#) (wq-wwists4-03) with the request for final inspection.

Permit Termination

After verification by the MPCA that all closure work has been completed satisfactorily, the permittee may submit a request for permit termination. Until the permit is terminated, the requirement for submittal of Discharge Monitoring Reports, any other specific reports, and payment of annual permit fees remains in effect.