Compliance inspections for subsurface sewage treatment systems

Learn about inspections for new and existing septic systems

Subsurface sewage treatment system (SSTS) compliance inspections are conducted for:

- Newly installed systems — To determine if the design and installation meet current rule requirements, and if the system will protect public health and minimize effects on groundwater.
- Existing systems — To determine whether the system is functioning properly to protect public health and groundwater. Existing system inspections do not check for system size, horizontal setbacks (i.e., property lines, wells, and buildings), estimated longevity, current usage, or past system abuse.

Individuals conducting compliance inspections must be certified by the Minnesota Pollution Control Agency and either operate under an SSTS inspection business license, or act as a qualified employee of a local government.

Compliance criteria

Existing system inspection

The main emphasis in inspecting existing systems is if: 1) the SSTS is an imminent threat to public health or safety (ITPHS), or 2) the system is failing to protect groundwater (FTPGW) by not adequately removing pathogenic organisms before reaching groundwater. Existing systems must also remain in compliance with issued operating permits if applicable. Ultimately, all existing systems must meet the provisions specified in Minn. R. 7080.1500 subp. 4.

Systems are considered imminent threats to public safety if they:

- Discharge sewage to the surface (e.g., overflow pipes, seeping areas in the yard, connected to agricultural drain tile)
- Chronically backup sewage into the connected homes or businesses
- Are unsafe (e.g., those with cracked tank lids or improper electrical wiring)

Systems that fail to protect groundwater include:

- Seepage pits, cesspools, or other types of pits
- Tanks that crack and leak below their operating depth
- Inadequate layers of suitable soil between the soil dispersal system and bedrock or periodically saturated soil (also called the seasonal water table)

Other conditions besides those listed above may cause systems to fail compliance inspections. Existing system inspections also must check for system failures that could lead to the unsafe conditions, such as plugged soil treatment systems; electrical failures of pumps, switches, or floats; and pipe problems.

It's not necessary to do soil borings to determine the depth of suitable soil if past soil borings have been verified for accuracy. In older systems, the suitable soil depth was not always verified, and some existing system inspections may reveal that the depth of suitable soil has been inadequate since the system's installation.

Existing systems that are not performing or being operated in accordance with their issued operating permit are also noncompliant.

New system inspection

For new SSTS construction, the system must:

- Be designed to all applicable federal, state, and local regulations, and meet established setback distances
- Prevent sewage or sewage effluent contact with humans, insects, or vermin
- Treat and disperse sewage safely, while avoiding physical injury or harm
- Maintain an unsaturated zone in the soil between the soil dispersal system and the bedrock or seasonally saturated soil (also called the water table) during loading of effluent. All newly constructed systems must have the soil's unsaturated zone (also called the vertical separation distance) verified
- Not be located in floodways

In addition, any replacement components for an existing SSTS must meet new construction criteria, according to local ordinances.

Recording inspections and certifying compliance

Inspectors must record all methods they use to determine system components or performance on the MPCA compliance inspection form. Local governments may have additional forms, which can be attached to the MPCA form. The inspector must submit the certificate of compliance (COC) or notice of noncompliance (NON) to the system owner (or owner's agent) and the local government unit within 15 business days after the inspection date.

The COC for a newly constructed system certifies that the system complies with current state and local requirements. The COC for an existing system certifies compliance with minimal public health and groundwater protection requirements. Changes in usage, such as increasing a building's occupancy, can change the performance of a SSTS but not necessarily change the compliance status. A COC is valid for three years for an existing system and five years for a newly constructed SSTS.

Existing systems that are found to be imminent threats to public health or safety or failing to protect groundwater are given a NON and a timeframe for upgrades, repairs, or replacement. The timeframe for ITPHS systems is 10 months maximum under state law, though local ordinances may dictate shorter timeframes. The timeframe for upgrading a FTPGW system is set by local ordinances.

When are inspections required?

Existing systems

Under state law, an inspection must be conducted when a bedroom is added to a dwelling if the local unit of government regulates that activity. Local ordinances may specify other events that trigger inspections, such as when a property is sold or a building permit is sought. A lending institution or a prospective buyer may also request a compliance inspection.

New systems

Compliance inspections for new or replacement systems are required:

- For all new construction and replacement of SSTS
- In designated shoreland areas, when any building permit or variance is requested
- If the local government administers a permit for bedroom additions (the system must be inspected before the permit is issued)

Existing system inspections vs. maintenance visits

If an SSTS professional visits to check if a septic tank needs to be pumped out, this routine maintenance check may be incorrectly termed an "inspection" and confused with a compliance inspection. There can be overlap between existing system inspections and maintenance checks. For instance, if a tank is pumped out every three years and found to be watertight below the operating depth, the system is checked for hydraulic and safety issues, and soil suitability has been previously verified, some information is already known to help determine system compliance.

More information

Visit the Minnesota Pollution Control Agency web site at http://www.pca.state.mn.us.