

VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ENVIRONMENTAL PROTECTION DIVISION

SEPTIC SYSTEM INSPECTION GUIDELINE

Annual inspection is a prudent practice for all septic systems. For larger septic systems permitted by the Department of Environmental Conservation annual inspections are required by permit condition.

To provide an understanding of what the Department expects in the septic system inspection report required by permit conditions, the following outline is offered as guidance. The outline is general and includes items not applicable to every septic system and does not include every item found on some septic systems. The inspector should apply it knowledgeably to the particular septic system at hand, and go beyond it when appropriate.

Inspections should be conducted and reports written with three distinct questions in mind:

- Operation:** How well is it operating compared to how it is intended to operate?
- Maintenance:** How well is it maintained and what repairs and corrections are needed?
- Replacement:** What needs to be replaced or will need to be replaced in the near future?

The inspection report should make it clear to the owner how well the septic system is functioning, how well it is maintained, what operational and maintenance changes should be made, what repairs need to be made immediately, and what major repairs or replacements need to be planned on the near future.

Soil-based, septic tank type wastewater treatment facilities are composed of three major types of components:

- Collection:** The sewers that convey the wastewater from the point of generation to the treatment system. Pumps and forcemains may exist in the collection system.
- Pretreatment:** The units used to treat the wastewater prior to the leachfields. These always include a septic tank; but may also include equalization, grease separation and grit removal devices.
- Soil Treatment/
Dispersion:** The soil that provides the physical and biochemical matrix for treatment and dispersion of septic tank effluent, and the distribution system and leaching structures that convey that effluent from the septic tank and distribute it to the soil leaching surface.

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A sketch of the wastewater treatment system should be made. Each component of the wastewater treatment system should be inspected, its operation and condition described, and any recommendations noted. The report produced from field notes should be concise but complete, and written in style and language readily understandable to the owner, maintenance personnel and contractors.

INSPECTION CHECKLIST

For each component of the wastewater facility inspect and document the physical condition, the operational status, the level of maintenance, and any necessary changes, repairs or replacements. What follows is an outline of tasks to be done and items to be checked.

- Describe and sketch the system components and layout.
- Quantify the source/type of wastewater. This should include the type of use (domestic or commercial/industrial), and the basis for system design (number of people, seats, bedrooms, etc.).
- Review permit requirements for the annual inspection and report.
- Review and evaluate wastewater flow and/or water use records.
- Review and evaluate wastewater quality and groundwater level data.

Collection System Components:

Sewer:

- alignment (lamping)
- structure (cracks, egging)
- infiltration

Manhole:

- cover
- rungs
- joints
- spalling
- bench
- invert
- deposition
- infiltration

Cleanout:

- location
- caps
- cracks

Pump/Siphon Station:

- pump operation
- mechanical condition
- level controls
- pump alternation
- alarms
- valve operation
- pumping rate
- joints
- deposition
- infiltration

Building Drain:

- wet areas
- subsidence
- plumbing back-up

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Pretreatment Components (Septic, Grease and Grit Tanks):

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|------------------------|----------------------|-----------------------|
| -covers | -size and dimensions | -inlet/outlet pipes |
| -baffles | -levelness | -structure |
| -subsidence | -sludge depth | -scum layer thickness |
| -sludge/scum carryover | -back-up | -leakage |

Soil Treatment Components:

Flow Splitter (Distribution Box):

- equal flow distribution
- levelness
- back-up
- deposition
- leakage
- valve/gate condition

Leaching Area:

- wet areas
- subsidence
- level of ponding (if accessible)
- surface vegetation
- encroachment into area
- surface drainage into area
- field alternation