

The Use of Composting and Incinerating Toilets In One and Two Family Dwellings

Environmental Public Health Division
Public Health and Preparedness Commission
Indiana State Department of Health
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Purpose:

The purpose of this document is to provide guidance for the use of composting and incinerating toilets in single family dwellings. The proposed use of composting or incinerating toilets in commercial facilities is handled by the state department of health (department) on a case-by-case basis.

Background:

The department sets minimum standards for residential (one and two family dwellings) onsite sewage systems. In accordance with *410 IAC 6-8.1-30, Residential Sewage Disposal Systems*, Administrative Authority, the rule is administered by local boards of health through their health officer and his/her authorized representatives. The rule addresses onsite system equipment and devices located outside of the dwelling. Therefore, indoor appurtenances such as composting and incinerating toilets are not addressed.

Discussion:

A composting toilet is a non-flush, waterless toilet that accepts human body waste in an aerobic, vented environment to cause decomposition of the waste by dehydration and digestion of organic matter, yielding a solid residue and liquid that are removed for sanitary disposal.

An incinerating toilet is a non-flush, waterless toilet that accepts human body waste into a chamber in which it is stored until incineration, typically using electricity, natural gas, or propane. The incineration products are primarily water vapor and a fine ash.

The use of a composting or incinerating toilet in a residence is not a substitute for an onsite sewage system. The use of a composting or incinerating toilet reduces, but does not eliminate, the wastewater volume. Wastewater from other household activities (bathing, laundry, dish-washing, etc.) must still be collected, treated and disposed of in compliance with all applicable laws, rules and ordinances. That wastewater, commonly known as gray water, contains substantial quantities of physical and chemical pollutants as well pathogenic organisms. In addition, a homeowner may tire of the responsibilities of operation and maintenance, or the residence may be sold to a person who chooses to replace the composting or incinerating toilet with a flush toilet. Therefore, the cost of the purchase, installation and maintenance of the composting or incinerating toilet is in addition to the cost of an onsite sewage system designed and installed in accordance with *410 IAC 6-8.1*.

The homeowner is responsible for handling the waste pile, compost and compost tea (liquid drainage from the waste pile in the unit), or ash from these units. Although some manufacturers and distributors claim a pathogen reduction to "safe" levels, pathogen levels may vary greatly

according to the operation and maintenance of the specific unit. The homeowner bears the responsibility of the proper disposal of any compost, compost tea, or ash.

Decision:

The local health officer may allow the use of a composting or incinerating toilet in a single-family dwelling when an onsite sewage system has been designed and installed in accordance with 410 IAC 6-8.1 and the installation of the composting or incinerating toilet will comply with all applicable ordinances, and building, plumbing and electrical codes. The following guidance is provided to local health departments concerning the use of composting and incinerating toilets:

1. The use of a proprietary product (i.e., composting or incinerating toilet) is not a substitute for an onsite sewage system that is designed and installed in accordance with 410 IAC 6-8.1.
2. The selection of the composting or incinerating toilet model should be based on the number of bedrooms in the residence, not on the number of occupants.
3. The composting or incinerating toilet should be certified by the National Sanitation Foundation (NSF) to be in compliance with ANSI/NSF Standard 41, and be published in their *Listing of Certified Wastewater Recycle/Reuse and Water Conservation Devices*.
4. The composting or incinerating toilet should be installed and operated according to the specifications of the manufacturer and be operated and maintained in a manner that will preclude any potential pollution or health hazards.
5. The disposal of any liquid (compost tea) from a composting toilet should be to either a sanitary sewer system or an approved onsite sewage system and not used in vegetable or ornamental gardens, or on a lawn.
6. The disposal of any compost (humus), ash, or residue from a composting or incinerating toilet should be at an approved landfill and not used in vegetable or ornamental gardens, or on a lawn.