

USE OF COMPOSTING TOILETS FACT SHEET

This fact sheet is to help property owners understand health regulations related to the use of composting toilets. Missouri Laws and Department of Health and Senior Services (DHSS) Rules governing onsite wastewater treatment systems (OWTS), also referred to as septic systems, can be found online at <http://www.health.mo.gov/living/environment/onsite/lawsregs.php>. One DHSS rule establishes the Missouri Minimum Construction Standards in the Code of State Regulations, 19 CSR 20-3.060. These standards include composting toilets as well as incinerating toilets in the definition of a non-ground absorption sewage disposal system. When properly managed, these waterless toilets can safely treat human toilet waste separately from other types of domestic wastewater.

All property owners are required to dispose of sewage or domestic sewage in an approved manner. 701.031 in the Missouri Laws and Department of Health and Senior Services Rules governing onsite wastewater treatment systems states property owners of all buildings where people live, work or assemble shall provide for the sanitary disposal of all domestic sewage.

It is important to understand that local OWTS administrative authorities' regulations must be as strict, but can be more stringent than the minimum state standards. Missouri Laws and Rules define sewage, or domestic sewage, to include black water and gray water. Black water is the water carried waste from flush toilets and from kitchen sink drains. Gray water is the wastewater from other plumbing fixtures including baths, showers, lavatories, laundry, and floor drains. Drainage from roofs, garages, and footings; cooling water discharges; surface water drainage, and hazardous wastes must be excluded from an OWTS. Also, the backwash from water softeners may be excluded.

The minimum standards, in 19 CSR 20-3.060(1) (E) 4, allow a reduction in the onsite system design flow rates on a case-by-case basis. When waterless toilets such as composting toilets are used, less black water is generated and the design flow rate for a residence may be reduced by up to 40 percent. Therefore, a smaller onsite system may be permitted to treat the gray water.

(Under state laws and any local OWTS ordinance, a construction permit is required. This applies to a proposed system with a composting toilet(s) and a gray water treatment and subsurface dispersal system. The permit application needs to indicate how the owner/operator will dispose of the composting end-product.)

Composting toilets that meet the requirements for NSF/ANSI Standard 41 are recommended (a listing of NSF certified units can be found at <http://info.nsf.org/Certified/Wastewater/> by selecting Standard 41 and clicking search:). However, other commercially manufactured units may also be permitted. An EPA Water Efficiency Technology Fact Sheet about composting toilets is attached; it is also available online.

Owners considering the use of compost toilets must be aware of, and commit to, the necessary management of the composting system and the compost produced. Owners and the permit authority should consider potential changes in use of the property and the needs of potential

future owners including, but not limited to, owner education and operation manuals. Improper maintenance of the system or unsafe handling of the compost may create a health hazard. Maintenance requirements will vary depending on the model of composting toilet and the manufacturer's guidance should be closely followed. Safe handling of the compost is required. Disposal of the compost may be subject to federal regulations (CFR Title 40, Part 503), which sets requirements for bio-solids. **Generally, burying the compost on your property away from any food plants and/or gardens and observing absorption field setback requirements would be acceptable.** An alternative would be to have the solid waste removed by a septage hauler.

Except for any reduction in design flow, as noted above, the minimum construction standards for a gray water system are the same as for any OWTS. Although, general recommendations cannot be made, it may not always be necessary to provide advanced pretreatment of only gray water where it would be necessary for treating the total sewage flow. Also, a variance to reduce vertical separation may be considered for a gray water system. Each situation and the site/soil limitations must be considered case-by-case.

Johnson County Code of Health Regulations Onsite Wastewater Treatment Systems (OWTS) requires all OWTS installations to have a current and approved permit issued from the Environmental Health office.

The Johnson County Code of Health Regulations Ordinance that went into effect on April 9, 2006; therefore, any OWTS constructed after that date must be approved with a final inspection from JCCHS. **Prior to beginning any construction activity (including soil disturbance) in anticipation of the construction of buildings where people will live, work, or assemble, the property owner or their agent shall contract for a soil morphology or percolation test in the proposed area of the OWTS and apply for an OWTS permit.**

JCCHS seeks this additional information in order to fulfill our commitments to Johnson County to protect ground and surface water from sewage pollution, which can occur when an OWTS isn't installed according to minimum construction standards.

Enclosed with this letter are documents that will help you in understanding and completion of the OWTS permit process. OWTS forms and publications may be reviewed and downloaded from our OWTS website at www.johnsoncountyhealth.org. If you have any questions, or feel this information is in error, please contact the Environmental office at (660) 747-6121, extension 258.

Sincerely,
Tammy Carlyle
Environmental Public Health Supervisor