Composting Toilets

Covered Products:

Composting toilets not connected to water supply or discharge and not using applied heat for composting.

Goal:

To provide a practical alternative for the processing of human bodily wastes without using potable water or tying into on-site septic or municipal waste system.

Background:

Saving natural resources:
A very small percentage of the total water on the planet is suitable for human consumption. Using potable water to flush human waste down the drain is depleting this natural resource. Composting toilets use no water and help conserve the world supply.

Saving money:
Many state entities (such as parks and historic sites) are in remote areas that are not connected to municipal sewer systems. Using composting toilets can save the expense of constructing an on-site septic system and there is no need for a water delivery system for the toilet functions. Also, some sites do not have the proper soil conditions for septic systems. Composting toilets appear to have a lower-life cycle cost than portable toilets since there is no rental fee and maintenance is minimal.

Preserving health:
Portable toilets may be used in areas where there are no municipal sewer systems, however, composting toilets typically have lower environmental impacts than portable toilets, as the chemically treated waste in portable toilets must be trucked to a sewage plant and treated again.

Definitions:

Compost is the byproduct of the bacteriological breakdown (digestion) of organic materials. It is rich in the nutrients required by most plants.

Composting toilets are toilets that use no potable water. They process human waste into compost suitable for non-food plants.

Potable water is water which is suitable for human consumption.

Portable toilets are movable and often temporary toilets that have an integral storage tank and use chemicals to neutralize the waste. They must be emptied on a regular basis.

ADA is the Americans with Disabilities Act. Compliance with the act typically requires conformance to ICC/ANSI Standard A117.1, Accessible and Usable Buildings and Facilities.

LEED (Leadership in Energy and Environmental Design) is an internationally recognized green building certification system, providing third-party verification that a building or community was designed and built using

strategies intended to improve performance in metrics such as energy savings, water efficiency, CO_2 emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

Standard Setting and Certifying Programs:

National Sanitation Foundation (NSF) is a not-for-profit, non-governmental organization committed to public health, safety, and protection of the environment. NSF develops national standards, provides learning opportunities, and provides third-party conformity assessment services while representing the interests of all stakeholders. The primary stakeholder groups include industry, the regulatory community, and the public at large. For additional information on NSF, visit the organization website at http://www.nsf.org/.

American National Standards Institute (ANSI) is a not-for-profit organization whose mission is to enhance both the global competitiveness of U.S. business and the U.S. quality of life by promoting and facilitating voluntary consensus standards and conformity assessment systems, and safeguarding their integrity. The Institute oversees the creation, promulgation and use of thousands of standards and guidelines that directly impact businesses in nearly every sector: from acoustical devices to construction equipment, from dairy and livestock production to energy distribution, and many more. ANSI is also actively engaged in accrediting programs that assess conformance to standards – including globally-recognized cross-sector programs such as the ISO 9000 (quality) and ISO 14000 (environmental) management systems. For additional information on ANSI, visit the organization website at http://www.ansi.org/default.aspx .

Specifications:

Affected entities shall provide composting toilets meeting the following specifications in addition to meeting all applicable laws, codes, rules and regulations:

- Impact and vandal resistant materials of construction.
- Compliance with ADA requirements.
- Certification by the National Sanitation Foundation (NSF) Standard 41 or equivalent.
- Ventilation through the toilet to eliminate any foul odors in the space.
- Single electrical connection with 120 volt AC or optional 12 volt DC system to supply any needed power.
- Ability to evaporate any liquids.
- Ability to withstand freezing temperatures without damage to the unit.
- Installation in accordance with the manufacturer's instructions.
- A minimum of a five-year warranty for compost tank, minimum of one year warranty for electrical components.

Affected entities are encouraged to:

- Replace seasonal portable toilets with composting toilets.
- Ask the manufacturer if any plastic materials used are from recycled material and are themselves recyclable.
- Provide energy efficient methods or renewable energy sources for any ventilating, pumping, or agitating (if required).
- Use the compost on-site to fertilize and/or mulch non-food plants.
- Provide signage that explains composting toilets and the benefits of their use.
- Provide routine inspection (recommended quarterly at a minimum) as well as cleaning, and servicing per manufacturer's recommendations.
- Reduce the State's carbon footprint by procuring local or regional products.

- For projects registered with a LEED rating system, some contribution to achievement of credits may be realized in purchasing units that are manufactured within 500 miles of the project site.

Toxics in Packaging:
In accordance with Environmental Conservation Law section 37-0205, packaging shall not contain inks, dyes, pigments, adhesives, stabilizers, or any other additives to which any lead, cadmium, mercury or hexavalent chromium exceed the following concentration level: 100 parts per million by weight (0.01%).