

## 4.15 Individual Wastewater Incinerator

Revision: August 18, 2016

Installer registration permit: Property owner or standard and basic

Licensed professional engineer required: No

### 4.15.1 Description

Housed within a dwelling or other structure, individual wastewater incinerators store and incinerate wastewater and/or blackwaste. Incineration is facilitated by petroleum fuels or electricity.

### 4.15.2 Approval Conditions

1. Water under pressure shall not serve the dwelling unless:
  - a. A public sewer connection is provided to the dwelling, or
  - b. A full-size subsurface sewage disposal system is installed, or
  - c. An incinerator capable of combusting the daily design flow for the dwelling's sewage blackwater and grey water is installed.
    - 1) Water under pressure for dwellings served by an incinerator is limited to storage tanks that are not continuously or automatically filled by natural sources (e.g., springs) or mechanical sources (e.g., pumped wells and surface water).
    - 2) Daily design flow shall be per IDAPA 58.01.03.007.08.
    - 3) Low flow water fixtures shall be installed throughout the dwelling.
    - 4) The installation permit shall include a statement: "Incinerator must be maintained and operable at all times the dwelling is occupied until such time that the dwelling is connected to an approved wastewater disposal system. The wastewater holding tank is only approved for temporary storage of wastewater prior to discharge to the incinerator and shall not be used as a permanent pump-and-haul holding tank."
2. Nonwater carried incinerator:
  - a. May be located in structures other than a dwelling if the structure is constructed to meet the requirements of a pit privy building (section 4.17.4).
  - b. Units are restricted to disposal of human feces and urine and shall be installed and operated according to the manufacturer's recommendations.
3. Water carried incinerator:
  - a. Wastewater holding tanks shall have a volume two times the capacity of the water supply tank and shall not be less than two times the maximum incineration volume of the installed unit.
  - b. Wastewater holding tank shall not be used as a permanent holding tank that necessitates pumping and hauling of the wastewater by a pumper truck.
4. Individual wastewater incinerator models must be approved by DEQ before installation (section 5.6).
5. Incinerators shall be installed according to the manufacturer's specifications.

6. Proper electrical, plumbing, and gas line permits must be obtained through the Idaho Division of Building Safety or any other applicable regulatory agency for the area the incinerator is installed within.

#### 4.15.3 Design Requirements

1. All materials used in construction of an incinerator toilet must be durable and easily cleaned. Styrene rubber, PVC, and fiberglass are examples of acceptable materials for toilet components.
2. The combustion area and flue must be constructed of heat-resistant, noncorrosive metals.
3. The design must demonstrate adequate resistance to internal and external stresses.
4. All mechanical and electrical components should be designed to operate safely and be capable of providing continuous service under reasonably foreseen conditions such as extremes in temperature and humidity.
5. For standard dwellings, the incinerator or toilet unit must be capable of accommodating full-time use based on two people in the first bedroom and one person in every other bedroom. Full-time use for other structures or dwellings will be determined on actual capacity and projected visitors per day.
6. Continuous positive ventilation of the storage or treatment chamber must be provided to the outside.
  - a. Ventilation components should be independent of the other structure ventilation systems.
  - b. Venting connections must not be made to room vents or to chimneys.
  - c. All vents must be designed to prevent flies and other insects from entering the treatment chamber.

*Note:* Toilets, as plumbing fixtures, are under the regulation of the Idaho Division of Building Safety, Plumbing Program. Current plumbing code prohibits using incinerator toilets without the permission of the health district. Proof of permission will be provided through a permit issued by the health district. Some incinerators may require significant volumes of fuel and long operation times to operate at peak capacity.

#### 4.15.4 Operation and Maintenance

1. The toilet and/or incinerator should be inspected regularly to check the quantity of incinerated waste for removal needs.
2. The toilet and/or incinerator components should be inspected and maintained according to the manufacturer's recommendations.