

CLEAR CREEK COUNTY Public and Environmental Health	Alternate Disposal Systems	Section 20
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1. General Requirements

- A. Design criteria and construction standards for alternate systems shall meet the requirements in Section 16.

2. Vaults

- A. Vaults for full time use in new construction are prohibited where a property can accommodate an OWTS with a STA. Vaults for full time use may only be permitted when a failing OWTS cannot be replaced and has been approved by the Board of Health.
- B. Vaults may be permitted for limited use occupancy on a property which cannot accommodate an OWTS with STA.
- C. Owners of a limited use occupancy dwelling shall maintain a current Limited Use Occupancy Dwelling Agreement with the Department. The Limited Use Occupancy Dwelling Agreement shall be recorded with the Office of the Clear Creek County Clerk and Recorder.
- D. Limited Use Occupancy Dwelling Agreements shall be maintained until the dwelling has a system that no longer requires limited use occupancy as approved by the health officer. Termination of the Limited Use Occupancy Dwelling Agreement shall be recorded with the Office of the Clear Creek County Clerk and Recorder.
- E. Vaults may be permitted if the facility is on land where the installation of an OWTS with STA is not permitted and has been approved by the Board of Health.
- F. Vaults may be permitted for systems where some of the wastewater flows are separated, such as toilet wastes only, into a vault. The portion not retained in the vault shall be treated in an adequately-sized OWTS.
- G. Vaults for non-residential use shall have a minimum 500 gallon effective volume or be capable of holding a minimum of the two (2) day design wastewater flow, whichever is larger.
- H. Vaults for residential use shall have a minimum 1,000 gallon effective volume or be capable of holding a minimum of the two (2) day design wastewater flow, whichever is larger.
- I. A visual or an audible signal device or both, indicating the vault is at 75 percent capacity, shall be installed to indicate when pumping is necessary.
- J. A tripping device, which activates at 85 percent capacity, shall be installed to effectively eliminate the water supply to the building being served by the vault.

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- K. Vaults shall meet the strength and watertightness requirements for septic tanks as defined in Section 17, except that that vault shall contain a single compartment and no effluent outlet shall be provided.
- L. Prefabricated fiberglass, fiberglass-reinforced polyester and plastic tanks may be used as vaults, if the tank manufacturer provides testing criteria certifying them for this use.
- M. Vaults shall be tested for watertightness in accordance with Section 17.1. One-piece or seamless vaults need not be tested.
- N. Vaults shall be located in an area that is easily accessible for routine pumping during all seasons of the year.
- O. The owner of a system that includes a vault shall obtain and maintain a contract with a licensed Systems Cleaner for the routine pumping of the vault. The owner shall maintain copies of all pumping receipts for a period of three (3) years and shall furnish copies to the Department upon request.

3. Vault Privy

- A. Vault privies may be allowed at the discretion of the health officer but shall be prohibited for residential uses.
- B. A vault privy shall be built to include:
 - 1. Fly- and rodent-tight construction;
 - 2. A superstructure affording complete privacy;
 - 3. An earth mound around the top of the vault and below floor level that slopes downward away from the superstructure base;
 - 4. A floor and a riser of concrete or other impervious material with hinged seats and covers of easily cleanable, impervious material;
 - 5. Venting that is fly-proofed with No. 16 or tighter mesh screening; and
 - 6. An effective volume of the vault shall be no less than 500 gallons and constructed of concrete or plastic.
- C. The vaults for privies shall meet the general requirements of vaults detailed in Section 20.2 except for wastewater flow separation.

4. Pit (Non-Vaulted) Privies

- A. The construction and use of pit privies is prohibited.

5. Composting Toilets

- A. A composting toilet may be used for toilet waste where an OWTS treating the wastewater remaining after the separation of the toilet wastes must meet all minimum design and construction standards for a TL1 OWTS based on the volume and character of wastes for the fixtures and the number of persons to be served. The compartment may be located within a dwelling or building provided that the unit complies with the applicable requirements of these Regulations and the most recently revised, locally enforceable plumbing code, and provided the installation will not result in conditions considered to be a health hazard. Compartment and appurtenances related to the unit shall include fly-tight and vector-proof construction and exterior ventilation.
- B. An approved composting toilet shall treat deposits of feces, urine, and readily decomposable household garbage that are not diluted with water or other fluids and are retained in a compartment in which aerobic composting will occur.
- C. The effective volume of the receptacle shall be sufficient to accommodate the number of persons served in the design of the unit installed. The effective volume of the unit shall include sufficient area for the use of composting materials which shall not be toxic to the process or hazardous to persons and which shall be used in sufficient quantity to assure proper decomposition.
- D. Residue from the composting toilet shall be removed when it is filled to 75 percent of capacity. Residue from the unit shall be properly disposed of by methods recommended by the manufacturer and acceptable to the health officer. Disposal methods shall prevent contamination of water and not cause a public health nuisance. Disposal using solid waste practices is recommended.
- E. If a system will be installed where low temperature may be a factor, design, and installation shall address the effects of the low temperature.
- F. Composting toilets shall be operated according to manufacturer's specifications.
- G. Only manufactured composting toilets meeting NSF/ANSI Standard 41 and bear the seal of approval of the NSF or an equivalent testing and certification program may be installed.

6. Incinerating Toilets

- A. An incinerating toilet may be used for toilet waste where an OWTS is installed for treating wastewater remaining after removal of toilet waste. The compartment may be located within a dwelling or building provided that the unit complies with the applicable requirements of these Regulations and the most recently revised locally enforceable plumbing code, and provided the installation will not result in conditions considered to be a health hazard. Compartment and appurtenances related to the unit shall include fly-tight and vector-proof construction and exterior ventilation.
- B. An approved incinerating toilet shall be designed and installed in accordance with all applicable federal, state, and local air-pollution requirements and manufacturer's instructions.
- C. Incinerating toilets shall meet the requirements of NSF P157 and bear the seal of approval of the NSG or an equivalent testing and certification program.

7. Portable Chemical Toilets

- A. A portable chemical toilet may be used with permitted approval from the health officer.
- B. Use of a portable chemical toilet in permanently occupied buildings is prohibited except during construction or under emergency circumstances as determined by the health officer. Proper ventilation of a chemical toilet used inside shall be required.

8. Graywater

- A. Regulations addressing graywater treatment and re-use are currently being developed by the Colorado Department of Health and Environment. Specific Requirements for these systems are pending, and the adoption and implementation process of these Regulations (No.86) at the State level are projected to be completed in 2015. Currently, the standard design requirements for conventional OWTS apply to buildings with graywater systems.

9. Rock Plant Filters (Constructed Wetland)

- A. Rock plant filters shall meet the requirements set forth in Section 43.11.D of Regulation 43.

10. Other Treatment Systems

- A. Treatment systems other than those discharging through a STA or sand filter system, including systems that utilize evapotranspiration or wastewater ponds, shall meet the requirements of Sections 43.12.B-C and 43.12.H of Regulation 43 and shall be approved by the Board of Health.