

ALABAMA STATE COMMITTEE OF PUBLIC HEALTH
ALABAMA DEPARTMENT OF PUBLIC HEALTH
BUREAU OF ENVIRONMENTAL SERVICES
DIVISION OF COMMUNITY ENVIRONMENTAL PROTECTION
ADMINISTRATIVE CODE

CHAPTER 420-3-1
ONSITE SEWAGE TREATMENT AND DISPOSAL

420-3-1-.17 Septic Tank, Grease Trap, And Holding Tank
Specifications.

(1) **Concrete Tanks.** These tanks shall be designed, constructed, and tested in accordance with the most recent American Society for Testing and Materials (ASTM) C1227 standard.

(a) Cast in-place tanks shall have a minimum wall, bottom, and lid thickness of standard.

(b) Precast concrete tanks with capacities of less than 1,200 gallons shall have a minimum lid thickness of 3 inches, and tanks with capacities of 1,200 gallons or more shall have a minimum lid thickness of 4 inches.

(c) Concrete tank lids shall have a minimum 6-inch by 6-inch (6-inch on centers of number 10 gauge) welded steel reinforcement or meet the current ASTM standard.

1. A lid for a tank may be monolithically poured. The lid for a tank with an effective liquid capacity of less than 1,200 gallons shall have only one section. A larger tank lid may have more than one section. In no case shall it be necessary to remove a lid or lid section in order to gain access to a tank for inspection or maintenance purposes. Where more than one lid section is used, joints between sections shall be watertight. Except for a monolithic pour or a proprietary product design, an approved water stop shall be used to affix the lid to the tank body or to seal multiple-part tank bodies.

(2) **Non Concrete Tanks.** These tanks shall be designed, constructed, and tested in accordance with the most recent IAPMO/ANSI Z1000 standard.

(3) **Risers.** Risers for tanks shall be cast/incorporated directly into tank lids or tops. Risers shall be manufactured of material-a that are compatible with the expansion and contraction of tank material and form a mechanical bond with the tank material, ensuring a watertight seal.

(a) Risers shall be located, at a minimum, over the inlet and outlet structures and shall be a minimum of 18 inches in diameter.

(b) All risers and components shall have watertight covers or lids. The cover or lid shall be designed, constructed, and maintained to prevent unauthorized access.

(c) A plastic or fiberglass access riser and cover or lid shall have third-party documentation that ultra-violet (UV) protection is molded into all components.

(4) **Traffic Rated.** Whenever vehicular traffic is anticipated to cross over a tank, traffic lids shall be installed with traffic rated risers to finished grade.

(a) Tanks and lids shall be designed in accordance with the appropriate ASTM standard for the appropriate loading.

(b) Any tank lid certified by the engineer to meet the appropriate American Association of State Highway and Transportation Officials (AASHTO) H-20 Loading Criteria may be approved by ADPH. Access inspection openings with a minimum 18-inch diameter or equivalent area opening shall be provided in the tank lid or top over the area of the inlet and outlet structures.

(5) **Tank Sizing.** The effective liquid capacity of a septic tank for a dwelling shall be based on the number of bedrooms proposed and shall, at a minimum, comply with Table 9.

(a) The effective liquid capacity of a septic tank for an establishment without advanced treatment shall be based on flow computed per 420-3-1-.52 Design Flow and Wastewater Concentrations, and shall have a minimum hydraulic detention time of 48 hours for tanks {i.e., septic tanks and grease traps}, or combinations of tanks in series. In no case shall the tank effective liquid capacity be less than 1,000 gallons.

(6) **Other.** If a trash trap is required by the OSS/EDS designer or manufacturer, the trash trap shall meet the structural requirements of this rule. When recommended or required by the advanced treatment system manufacturer or the engineer, a sewage trash trap or septic tank preceding an advanced treatment unit shall meet the design requirement of the advanced treatment system manufacturer. The effective liquid capacity of the trash trap shall meet the advanced treatment manufacturer requirements.

(a) Septic tanks installed at individual dwellings as part of a Large-Flow Cluster System shall conform to the construction and inspection requirements of the Minimum Construction and Testing Standards for Cluster and Community Wastewater Systems.

(b) The use of metal tanks, drums, barrels, or pipes as sewage tanks is prohibited for use with onsite sewage disposal systems.

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