12-024 September, 2022

Dosing Chambers, Pump Tanks and Pump Chambers

Dosing chambers, pump tanks and pump chambers are used to house pumps and retain and/or convey wastewater to the septic system distribution system or soil absorption system. Dosing chambers and pump tanks and chambers used in an onsite wastewater treatment system must be watertight and constructed of materials not subject to excessive corrosion or decay. Acceptable tank construction materials are concrete, fiber reinforced plastic, high density plastic and fiberglass. To minimize corrosion and degradation of the concrete, all concrete interior surfaces of a tank that are exposed to air must be coated with a bitumastic or similar protective compound beginning 3 inches below the normal effluent operating level.

Concrete block and metal are not acceptable materials for new tank construction. When an existing system is being replaced, reconstructed, altered, or modified, and there is an existing concrete block or metal tank that is part of the system, the tank must be inspected. The existing tank must be replaced with a tank meeting current requirements unless the existing tank is determined to be structurally sound and watertight.

Capacity

- Pump Tank

  A pump tank is a container with a capacity of over 50 gallons. The capacity of a pump tank is measured at the normal high (pump start) operating level. A pump tank serving a dwelling or non-dwelling must have a minimum storage capacity above the normal high (pump start) operating level for one day of flow at the design flow rate. The capacity of a tank housing a pump or used as a pump tank is not considered part of the treatment volume required for a septic tank.

- Pump Chamber

  A pump chamber, or pump basin is a container with a capacity of 50 gallons or less. The capacity of a pump chamber is measured at the normal high (pump start) operating level. The capacity of a chamber housing a pump or used as a pump basin is not considered part of the treatment volume required for a septic tank and is not subject to tank setbacks.

Placement

The installation of a pump tank is prohibited within the following horizontal setback distances (Table 2.1 of Title 124) unless individually reviewed and a construction permit is issued by the Department.

Tank Setbacks

Item	Minimum Setback Distance Feet (meters)
Surface Water	50 ft. (15.2 m)
Private Drinking Water Wells	50 ft. (15.2 m)
Public Drinking Water Supply Wells:	
Non-Community System	50 ft. (15.2 m)
Community System	500 ft. (152.4 m)
Community System when a septic system or soil absorption system of > 1000 gpd is proposed	500 ft. (152.4 m)
All Other Water Wells	50 ft. (15.2 m)
Water Lines:	
Pressure-Main	10 ft. (3.1 m)
Pressure-Service Connection	10 ft. (3.1 m)
Suction Lines	50 ft. (15.2 m)
Property Lines	5 ft. (1.5 m)
Parking area, driveway, sidewalk, or other impermeable surface or cover	5 ft. (1.5 m)
Foundations:	
Except Neighbor's Foundation:	
Class 1	15 ft. (4.6 m)
Class 2	10 ft. (3.1 m)
Class 3	7 ft. (2.1 m)
Neighbor's Foundation:	
Class 1	25 ft. (7.6 m)
Class 2	20 ft. (6.1 m)
Class 3	15 ft. (4.6 m)

Note: For setback purposes, foundation classes are defined as follows:

- Class 1 Foundation means a basement, a non-basement footing, or slab-on-grade living quarters where any portion of the living quarters basement, footing, or slab is lower in elevation than the onsite wastewater treatment system component.
- Class 2 Foundation means a non-basement footing foundation, trailer house, or slab-on-grade living quarters higher in elevation than the on-site wastewater treatment system. Any other foundation that is not a Class 1 or Class 3 is a Class 2 Foundation.
- Class 3 Foundation means slab-on-grade construction that is not used as living quarters.

A chamber housing a pump or used as a pump basin is not subject to tank setbacks. In addition, Nebraska Health & Human Services System Title 178 - Regulations Governing Water Well Construction, Pump Installation, and Water Well Decommissioning Standards and Title 179 - Regulations Governing Public Water Supply Systems may also require more stringent setback requirements.