

567—69.4(455B) Effluent distribution.

69.4(1) Pump systems. Dosing through mechanical pumping is the recommended method of effluent distribution and is preferred to improve distribution, improve treatment, and extend system life. In the event that effluent from a septic tank outlet cannot be discharged by gravity while maintaining the proper lateral depths, the effluent may be discharged into a watertight pump pit or tank with an inside diameter of not less than 24 inches, equipped with a tight-fitting cover at grade level. Pumps shall be of a submersible type of corrosion-resistant material.

a. Inlet. Pump inlets shall be elevated at least four inches above the bottom of the pump pit or tank to prevent the pump from drawing excessive settled solids.

b. Electrical. Electrical installations shall comply with all applicable state and local codes and ordinances. Electrical connections shall be located in an exterior weatherproof box. On-site electrical connections shall not be located in the pump pit or tank, unless a manufactured connection or an electrical connection rated for use inside a pump pit or tank is provided.

c. Pump setting. Pumps shall be installed in the pump pit or tank in a manner that ensures ease of service and protection from frost and settled sludge. Pumps shall be set to provide a dosing frequency of approximately four times a day based on the maximum design flow.

d. Pipe. Distribution pipe used in pressure-dosed systems shall be rated for pressure use and be a minimum SCH 40 PVC pipe (SDR 26 or stronger).

e. Pressure line size. The diameter of the pressure line from the pump to the point of discharge shall not be smaller than the outlet of the pump it serves.

f. Drainage. Pressure lines shall either be installed to provide total drainage between dosing to prevent freezing or shall be buried below frost level up to the distribution point.

g. High water alarm. Pump pits or tanks shall be equipped with a sensor set to detect if the water level rises above the design high water level if the pump fails. This sensor shall activate an auditory or visual alarm to alert the building occupants.

h. Discharge point. The effluent may either be discharged under pressure into a distribution box or distributed by small-diameter pipes throughout the entire absorption system.

i. Filtered pump vaults. Filtered pump vaults, when used, require periodic inspection and cleaning to ensure their continued proper operation.

69.4(2) Gravity distribution. Septic tank effluent may be serially loaded to soil absorption trenches by drop boxes or overflow piping (rigid sewer pipe). Otherwise, effluent shall be distributed evenly to all trenches by use of either a distribution box or a commercial distribution regulator approved by the administrative authority.

a. General design and use. Gravity distribution boxes shall:

(1) Be installed with separate watertight headers leading from the distribution box to each lateral.

(2) Be constructed of corrosion-resistant rigid plastic materials. Header pipes shall be rigid SCH 40 PVC pipe (SDR 26 or stronger) meeting ASTM 2729-21, November 30, 2021, or equivalent.

b. Equal length. Soil absorptions trenches served by a gravity distribution box shall be of equal length. Soil absorptions trenches served by drop boxes may vary in length.

c. Baffles. There shall be a pipe tee at the inlet to break the water flow.

d. Outlets.

(1) A distribution box shall have outlets at the same level, at least four inches above the bottom of the box, to provide a minimum of four inches of water retention in the box.

(2) All distribution box outlets shall be made level. A four-inch cap with an offset hole approximately 2½ inches in diameter shall be installed on each outlet pipe. The caps shall be rotated until all outlets discharge at the same elevation. Equivalent leveling devices may be approved by the administrative authority.

(3) All unused outlet holes in the box shall be securely closed.

69.4(3) Other distribution devices. For all other effluent distribution devices, the manufacturer's specifications shall be adhered to for installation, cleaning, and maintenance.

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