4715.1810 WATER PRESSURE BOOSTER SYSTEMS.

Subpart 1. **Water pressure booster systems required.** When the water pressure in the public water main or individual water supply system is insufficient to supply the probable peak demand flow to all plumbing fixtures and other water needs freely and continuously with the minimum pressures and quantities specified in part 4715.1770, subpart 2 or elsewhere in this code and in accordance with good practice, the rate of supply shall be supplemented by an elevated water tank, a hydropneumatic pressure booster system, or a water pressure booster pump installed in accordance with subpart 5.

Subp. 2. **Support.** All water supply tanks shall be adequately supported.

Subp. 3. **Covers.** All water supply tanks shall be covered to keep out contaminants. The covers of gravity tanks shall be vented with a return bend vent pipe having an area not less than the area of the down feed riser pipe and the vent shall be screened with corrosion resistant screen of not less than 16 mesh.

Subp. 4. **Overflows for water supply tanks.** Each gravity or suction water supply tank shall be provided with an overflow having a diameter not less than shown in subpart 10. Sizes of overflow pipes for water supply tanks. The overflow outlet shall discharge above and within not less than six inches of a roof or roof drain, floor or floor drain, or over an open water supplied fixture. The overflow outlet shall be covered by a corrosion resistant screen of not less than 16 mesh.

Subp. 5. **Water supply to booster pumps.** When a booster pump is used on a water pressure booster system, it shall be supplied through a surge tank or if supplied through a direct connection, a low pressure cutoff switch (10 psi) and a vacuum relief valve or tank shall be installed on the suction side of the booster pump to prevent the creation of a vacuum or a negative pressure on the suction side of the pump. If installed below grade it shall be installed in a normally occupied area and on a pedestal at least 24 inches above the floor.

Subp. 6. **Potable water inlet to tanks.** Potable water inlets to gravity, surge, or break tanks shall be controlled by a ball cock or other automatic supply valve so installed as to prevent the tank from overflowing. The inlet shall be terminated so as to provide an accepted air gap but in no case less than four inches above the overflow.

Subp. 7. **Tank drain pipes.** Each tank shall be provided at its lowest point with a valved pipe to permit emptying the tank, which shall discharge as required for overflow pipes, and not smaller in size than shown in subpart 11.

Subp. 8. **Prohibited location of potable supply tanks.** Potable water tanks shall not be located directly under any soil or waste piping.

Subp. 9. **Pumps and other appliances.** Water pumps, filters, softeners, tanks, and all other devices and appliances used to handle or treat potable water shall be protected against contamination.

Subp. 10. **Sizes for overflow pipes for water supply tanks.**

Maximum Capacity of Water Supply Line to Tank	Diameter of Overflow Pipe (Inches ID)
0 - 50 gpm	2
50 - 150 gpm	2-1/2
100 - 200 gpm	3
200 - 400 gpm	4
400 - 700 gpm	5
700 - 1000 gpm	6
Over 1000 gpm	8

Subp. 11. **Size of drain pipes for water tanks.**

Tank Capacity (gallons)	Drain Pipe (inches)
Up to 750	1
751 to 1500	1-1/2
1501 to 3000	2
3001 to 5000	2-1/2
5001 to 7500	3
Over 7500	4

Statutory Authority: *MS s 326.37 to 326.45; 326B.43 to 326B.49*

History: *L 2007 c 140 art 6 s 15; art 13 s 4*

Published Electronically: *May 14, 2012*