

1513.0730 CONTAINER APPURTENANCES.

Subpart 1. **Physical damage protection.** Nonrecessed container fittings and appurtenances must be protected against physical damage by either:

- A. a protected location;
- B. the vehicle frame or bumper; or
- C. a protective housing.

The protection housing, if used, must comply with the requirements under which the containers are fabricated with respect to design and construction, and must be designed to withstand static loadings in any direction equal to twice the weight of the container and attachments when filled with the lading, using a safety factor of not less than four, based on the ultimate strength of the material to be used. The protective housing, if used, must be protected with a weather cover to ensure proper operation of valves and pressure relief devices.

Subp. 2. **Container openings.** With the exception of pressure relief valves, liquid level gauges, pressure gauges, and thermometer wells, every opening in a container must be:

- A. closed with a plug, cap, bolted flange, or plate;
- B. provided with an excess flow valve and manual shut-off valve;
- C. provided with a back flow check valve and manual shut-off valve; or
- D. provided with a remotely controlled internal shut-off valve as described in subpart 3.

Subp. 3. **Discharge openings.** Every liquid or vapor discharge opening in a container must be provided with a remotely controlled internal shut-off valve. For every opening of less than 1-1/4 inches NPT, an excess flow valve with manual shut-off valve may be used instead. The internal shut-off valve may be operated by mechanical means, by hydraulic means, or by air or gas pressure.

A. On a container of 3,500 gallons water capacity or less, each internal shut-off must be provided with at least one remote control station and the actuating means may be mechanical. This station must be at one end of the tank, away from the discharge connection area.

B. On a container over 3,500 gallons water capacity, each internal shut-off valve must be provided with remote means of closure, both mechanical and thermal, that are installed at the ends of the tank in at least two, diagonally opposite locations. If the discharge connection at the tank is not in the general vicinity of one of the two locations specified above, one additional fusible element must be installed so that heat from a fire in that area

will activate the emergency control system. Fusible elements may not have a melting point exceeding 250 degrees Fahrenheit.

Subp. 4. **Exception.** The requirements of subpart 3 do not apply to a 1-1/4 inch NPT liquid or vapor discharge opening equipped with an excess flow valve and manually operated shut-off valve installed before October 1, 1984.

Subp. 5. **Vapor equalizing valve.** A container must be equipped with an approved vapor equalizing valve of adequate capacity.

Subp. 6. **Liquid level gauge.** A container must be equipped with a fixed maximum liquid level gauge.

Subp. 7. **Pressure gauge.** A container must be equipped with a pressure gauge having a dial graduated from 0-400 psig.

Statutory Authority: *MS s 18C.121*

History: *21 SR 277*

Published Electronically: *September 10, 2007*