

1513.0340 INSTALLATION OF STORAGE CONTAINERS.

Subpart 1. **Footings, foundations, and supports.** Containers installed aboveground must be provided with reinforced concrete footings and foundations or structural steel supports mounted on reinforced concrete foundations. In either case, the reinforced concrete foundations or footing must extend below the established frost line and be of sufficient width and thickness to support the total weight of the containers and contents adequately. The foundation must maintain the lowest point of the tank not less than 18 inches above the ground. Floating type foundations must also be acceptable if the foundations are designed to adequately support the tank, contents, and piping according to part 1513.0160.

Subp. 2. **Horizontal aboveground containers.** Horizontal aboveground containers must be mounted on foundations so as to permit expansion and contractions. A container must be supported to prevent the concentration of excessive loads. The bearing afforded by the saddles must extend over at least one-third of the circumference of the shell. Suitable means for preventing corrosion must be provided on that portion of the container in contact with the foundations or saddles.

Subp. 3. **Buried containers.** Containers buried underground must be placed so that the top of the container is at least one foot below the surface. It is not necessary to cover the portion of the container to which a manhole and other connections are affixed. If necessary to prevent floating, containers must be securely anchored or weighted.

Subp. 4. **Corrosion resistance.** As a minimum, an underground container must be set on firm earth or another firm foundation, and must be surrounded by at least six inches of noncorrosive, inert materials, such as soft earth, sand, or gravel well compacted into place. As a further means of resisting corrosion, the container and its piping, prior to placement in the ground, must be provided with the following:

- A. a suitable protective coating applied after proper surface preparation according to the coating manufacturer's recommendations;
- B. cathodic protection; and
- C. electrical isolation of the container from ancillary equipment.

Corrosion-resistant materials of construction may be used as an option. A coated container must be lowered into place in a manner to prevent abrasion or damage to the coating.

Subp. 5. **Separation.** The horizontal distance between aboveground and underground containers of over 1,200 gallons capacity must be at least five feet.

Subp. 6. **Protection against flotation.** Secure anchorage or adequate pier height must be provided against container flotation wherever sufficiently high flood water might occur.

Statutory Authority: *MS s 18C.121*

History: *21 SR 277*

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