



Overfill Protection Requirements for Aboveground Storage Tanks

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All regulated aboveground storage tanks (ASTs) with a capacity greater than 1,100 gallons must have overfill protection if the tanks are filled by transfers of more than 55 gallons at one time. This fact sheet explains overfill protection requirements for AST facilities according to Minn. R. 7151.5700 and 7151.6700.

Tank overfills are a common cause of release at AST sites. Overfills from delivery of product are typically small and easily contained, however a history of repeated spills and overfills at a site can result in an accumulation of product causing significant soil and ground-water contamination.

Overfill options

There are several options for meeting this requirement. A tank can have a:

- high-level alarm that can be seen or heard by the person controlling the transfer, set at no greater than 95 percent of the tank capacity
- system that automatically shuts off substance flow into the tank, set at no greater than 95 percent of capacity

- permanently mounted sight glass or gauge that is visible to the person controlling the transfer that accurately shows the tank's substance level
- manual gauge with a level stick that is monitored during the transfer by the person controlling the transfer or by someone in contact with the person controlling the transfer

If the level stick or sight glass does not have volumetric measurements and conversion is required, a clearly labeled conversion chart must be mounted on the tank or delivery manifold (visible to those filling the tank).

If a regulated double-walled tank's containment area is more permeable than 10^{-7} cm/sec, a high-level alarm or automatic shut-off device is required. Any regulated double-walled tank installed on or after November 2, 1998, and located in a secondary containment area with a permeability of 10^{-7} cm/sec or tighter can use any of the four overfill protection options. Double-walled tanks installed before November 2, 1998, with a permeability of 10^{-7} cm/sec or tighter, do not need overfill protection.

Timing for compliance

Regulated ASTs installed after November 1, 1998, must have overfill protection at the time of installation.

Regulated ASTs installed before November 1, 1998, were required to have overfill protection by November 1, 2003. Tanks installed before November 1, 1998, do not need overfill protection if the tank system's secondary containment area has a permeability of 10^{-7} cm/sec or tighter and meets the secondary containment requirements for new or existing ASTs (Minn. R. 7151.5400 or 7151.6400, subp. 1-4).

Need more information?

Visit the AST Program at <http://www.pca.state.mn.us/cleanup/ast.html>. The site has forms, fact sheets, and other information about ASTs and AST requirements.

You can also call the MPCA at 651-296-6300 or 1-800-657-3864.
