



Corrosion Protection for Aboveground Storage Tanks

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Corrosion protection prevents the deterioration of metal tanks. This fact sheet explains the corrosion protection requirements according to Minn. R. chs. 7151.5600 and 7151.6600 for regulated above-ground storage tanks (ASTs) larger than 1,100 gallons.

Tank corrosion protection

Regulated steel ASTs must be protected from internal and external corrosion. Many options exist for facilities to comply with these requirements. A tank can be:

- elevated with the underside in contact only with tank supports
- on a concrete pad designed to prevent water accumulation under the tank floor
- cathodically protected and internally lined according to American Petroleum Institute (API) Standard 652
- cathodically protected and internally inspected using API Standard 653
- internally lined according to API Standard 652 and internally inspected according to API Standard 653
- double-walled
- double-floored with a vacuum pulled on the interstitial space or an installed cathodic protection system

Tank line corrosion protection

Steel piping connected to ASTs must be protected from external corrosion using one of the following options. The lines can be located above the ground as long as they are not in contact with soil;

- cathodically protected
- double-walled

Design criteria

Field-erected steel tanks and lines must have a corrosion protection system designed by a corrosion expert according to API Standards 651 and 1632.

Underground lines and the floor underside of a shop-fabricated steel tank installed after November 1, 1998, must be coated with dielectric material according to Steel Tank Institute Recommended Practice R893-89.

Need more information?

Visit the AST Program at 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.