

Aboveground storage tanks major facility requirements

Capacity greater than one million gallons

Aboveground storage tank (AST) facilities with one million gallons or more of regulated liquid storage capacity must obtain a permit from the Minnesota Pollution Control Agency (MPCA). This fact sheet explains the basic requirements for these large AST facilities according to [Minn. R. Ch. 7001.4205](#) through [7001.4250](#).

Most storage tanks located aboveground containing hazardous liquid substances are subject to the MPCA's rules for design and operation. These rules are intended to protect the waters of the state, including surface and groundwaters, from accidental leaks and spills of hazardous liquids. A list of tanks exempt from the MPCA's AST regulations is found in [Minn. R. Ch. 7151.1300](#).

Major facility permitting process

A major facility is defined as one or more regulated ASTs including any indoor tanks, any associated secondary containment areas, and substance transfer areas, that are located at a single property or contiguous multiple properties with total tank capacity of one million gallons or greater.

Proposed new facilities that will meet the definition of a major facility and smaller facilities that plan to increase capacity to meet the definition of a major facility must apply for, and be issued a permit before initiating any tank construction or installation. This includes soil and foundation work.

The facility owner will need to submit an online permit application. More information is found on the [AST program webpage](#). Information requested in the application includes specific data on regulated tanks, secondary containment, transfer areas, piping, and stored substance(s). There is no fee for permit applications.

Major facility permits are normally not required to go through a public notice period, though the facility applying for the permit can request one. The MPCA may also require one if there is belief that issuance of the permit could be controversial.

AST major facility permits are issued for a term of 10 years. Permits may be modified as appropriate or necessary upon request and approval by the MPCA. Permittees will need to apply for permit reissuance at least 90 days prior to the expiration date of their current permit in order to continue operating under it during the reissuance process.

Major facilities that decrease their capacity and fall below the one million gallon threshold will still be subject to their AST permit until it expires, at which point the facility must comply with [Minn. R. Ch. 7151](#).

Major permit requirements

Typical permit requirements include, but are not limited to:

- ASTs must have overfill prevention equipment or procedures based on the stored substance and the method of transfer.
- Aboveground piping must have no contact with soil and be coated to reduce corrosion.
- Underground piping that is not cased, double walled, or in a chase or trench must be leak tested annually. Buried steel piping must be cathodically protected.
- Field-erected ASTs must have formal API 653 internal and external inspections performed at the required intervals.

- New field-erected ASTs containing a type A or B substance must include a release prevention barrier such as a concrete base or a synthetic liner.
- Existing field-erected tanks containing a type A or B substance that do not have a release prevention barrier must be leak tested annually starting 10 years after the most recent internal inspection.
- ASTs transferring substances to and from trucks and railcars must have a transfer area that provides containment for releases at the point of connection between the tank and the vehicle.
- Single walled ASTs must be located within a containment area that can contain a release equal to at least 110% the volume of the largest tank inside the area. Containment areas must have an annual integrity inspection.

Need more information

Visit the AST Program at <https://www.pca.state.mn.us/waste/aboveground-storage-tank-systems>.

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.