



Changes to Requirements for Reissued Aboveground Storage Tank Major Facility Permits

The second-generation Aboveground Storage Tank (AST) Major Facility Permits issued between 2003 and 2013 will be expiring in coming years.

As the program has evolved from its inception in 1998, the Minnesota Pollution Control Agency (MPCA) has learned much about the risks of operating ASTs and the best management practices to prevent releases. The AST permits currently in effect have served to dramatically reduce the incidence of leaks and spills from tanks and piping. The MPCA has concluded that very few substantive changes need to be made in the third-generation AST permits, and the focus has been on revising the format to facilitate compliance.

Changes to tank and piping requirements and permit format will be implemented as existing facility permits are reissued. Not all changes will affect all facilities. As in the past, the MPCA will discuss the new permits with Permittees and will adapt requirements to specific facility and industry conditions as appropriate. Noted below are the most significant changes; other minor substantive and format changes will also be found in the new permit.

Summary of changes to requirements for reissued AST Major Facility Permits

Requirement	Current permits	New permits
Requirements summary tables	None	<ul style="list-style-type: none"> Tables for Tanks, Piping, Substance Transfer, Containment, and General Requirements
Weekly visual monitoring	Weekly check for releases	<ul style="list-style-type: none"> New monitoring log
Monthly maintenance inspection	Monthly external visual check of tank condition	<ul style="list-style-type: none"> Includes shop-fabricated tanks Check for releases from double walled systems New monitoring log
API 653 inspection process	Procedures for third-party inspections of field-erected tanks	<ul style="list-style-type: none"> MPCA Guidelines document no longer in use Criteria for inspection reports Criteria for required versus recommended repairs New inspection summary document
API 653 maximum internal inspection interval for Type C	Case-by-case	<ul style="list-style-type: none"> 20 years for all floor designs
Preventing exterior corrosion of steel tanks and piping	General duty to maintain equipment	<ul style="list-style-type: none"> Apply and maintain coatings Maintain insulation Proper pipe support design

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Requirement	Current permits	New permits
Vehicle transfer area containment for Type A and B substances	Made of "impervious" material	<ul style="list-style-type: none"> · Made of concrete or a synthetic material · Duty to maintain integrity
Containment area integrity	General duty to maintain containment areas	<ul style="list-style-type: none"> · Annual containment area integrity inspection
Underground piping	Confusion about applicable requirements	<ul style="list-style-type: none"> · Distinction between short-run and long-run piping eliminated · List of piping design options, with design criteria and leak detection procedures for each option · API 570 evaluations of buried piping no longer required
Construction approval for new field-erected tanks and buried piping	Confusion about process	<ul style="list-style-type: none"> · Submit modification application at least 60 days prior to initiating activity, including foundation work
Permit renewal process	Not referenced	<ul style="list-style-type: none"> · Language explaining process

Requirements summary tables

Tables have been added for Tanks, Piping, Substance Transfer, Containment, and General Requirements. Tables summarize requirements, reference applicable permit sections for details, and indicate if records, notifications and submittals are required.

Monitoring

Sample logs for weekly visual monitoring and monthly maintenance inspections have been revised and improved. Shop-fabricated tanks are included in monthly inspections. Monthly inspections must include checking any double walled systems for leaks.

API 653 inspection process

The MPCA Inspection Guidelines document will no longer be referenced. Inspectors must prepare reports that comply with Section 6.9 of API 653. Permittees must develop a schedule of repairs to demonstrate that mandatory repairs have been completed and consideration has been given to all other inspector recommendations. The revised Inspection Summary document must be completed and submitted by Permittees.

Type C substance inspection intervals

The maximum internal inspection interval for Type C tanks will be 20 years for all tank designs.

Preventing exterior corrosion of steel tanks and piping

Pursuant to the general duty to maintain equipment, steel tanks and piping must be coated and coatings maintained to prevent corrosion. Protective insulation covers must be maintained intact to prevent water infiltration. Steel piping may not rest directly on a steel or concrete support, unless pipe is bonded to the support or to a spacer piece.

Transfer area containment

"Impervious material" for Type A and B truck and rail transfer area containment is now specified as concrete or a synthetic material.

Containment area integrity

In lieu of checking for containment problems during monthly inspections, permits will require an annual evaluation of all containment areas and repairs as necessary.

Underground piping

The distinction between long-run and short-run underground piping is being eliminated. Instead, for each type of installation (casing, chases and trenches, buried single walled, buried double walled) permits will specify the design criteria and applicable leak detection options such as visual monitoring or leak testing.

API 570 piping inspections

API 570 inspections of buried underground piping were determined not to be necessary in addition to other required safeguards, and are no longer required.

Construction approvals

The approval process for new field-erected tanks and underground piping will be clarified to require submittal of a permit modification request at least 60 days prior to the start of the activity, including foundation work.

Permit renewal

A new section will explain the timing and process for permit reissuance at the end of the permit term.