



OFFICE OF THE ILLINOIS STATE FIRE MARSHAL

FIRE PREVENTION DIVISION

AST / ABOVEGROUND STORAGE TANKS

QUICK FACTS

3.1.19

OVERVIEW OF ABOVEGROUND STORAGE TANK (AST) PROGRAM IN ILLINOIS

Fire and incident causes

- Inadequately sized AST
- Absence of, emergency venting
- Unattended delivery of product causing overfilling/spillage
- Vehicle contact
- Improper power supply
- Inadequate or no secondary containment

REGULATIONS

ASTs containing flammable or combustible liquids are regulated by OSFM Part 160 and Part 180

Bulk storage tanks include

- Tanks used for the storage of flammable or combustible liquids
- Not dispensed directly into the fuel tanks of vehicles
 - Can be used to fill fuel transport trailer cargo tank only, not the tractor pulling

Dispensing tanks contain products that are dispensed directly into the fuel tank of a motor vehicle

Currently no requirement for registration of ASTs. OSFM does not maintain a database of ASTs.

AST dispensing at mining facilities are allowed up to 12,000 gallons with specific installation restrictions:

- Increased separation distances to buildings and property lines,
- Storage of diesel fuel and not gasoline
- Fueling of equipment that is not capable of being driven to a service station.
- Agreement to the installation by the local fire department.

Before setting AST, tank owners and installers should ensure they comply with all state and local rules

Local AHJ are allowed to apply zoning ordinances and requirements to AST installations.

OSFM often encounters installations which meet state requirements, but not local regulations.

Additional information on the OSFM Website for AST installations in Chicago

The OSFM has not adopted NFPA Standard #30 for AST installations in Illinois

SECONDARY CONTAINMENT

All flammable and combustible liquid storage tanks other than Class IIIB liquid storage tanks must be provided with secondary containment regardless of the capacity of the tank.

Currently accepted methods of secondary containment for regulated ASTs:

- Concrete dikes,
- Earthen dikes,
- Steel catch pans,
- Double-walled tanks,
- Concrete encased tanks,
- Vaulted tanks,
- Sealed room enclosures with raised door sills
- Remote impounding (ditch to a containment area)

OSFM APPLICATION, REVIEW, INSPECTION

All storage tanks used for dispensing fuels are subject to application review and inspection.

All bulk storage tanks greater than 110 gallons capacity are subject to application review and inspection.

LP-Gas tanks are subject to application review and inspection if:

- Singular tanks >2,000 gallons capacity
- Multiple tanks at the same facility >4,000 gallons, or
- Any size tank used for dispensing LP-Gas into smaller cylinders or vehicles

The applicable standards are:

- U.L. 142 Aboveground Steel Storage Tanks for Flammable and Combustible Liquids
- U.L. 2080 Fire Resistant Aboveground Tanks for Flammable and Combustible Liquids
- U.L. 2085 Protected Aboveground Tanks for Flammable and Combustible Liquids
- U.L. 2245 Vaulted Tanks U.L. U.L. 2244 Tank Systems

Applications are available on the OSFM Website

- AST Bulk Application
- AST Dispensing Application

All applications for aboveground liquid (bulk or dispensing) storage tank installation or relocation must be completed, and submitted to OSFM Technical Services Division for review.

Applications may be submitted either

- Electronically
- Mailed to office address indicated at the top of the forms.
 - New submittal system under construction

There is no fee required for the OSFM's review or field inspection of aboveground storage tanks.

GENERAL

All AST applications must be accompanied by one copy of site plans showing the required information.

- Adherence to separation distance to property lines, buildings and other tanks
- Provisions for electrical grounding of the tank
- The capacity of the tank(s) is within the maximum allowable limits
- The number of tanks at the facility is within allowable limits
- The presence and capacity of normal venting
- The presence and capacity of emergency venting
- The tank(s) to be installed are labeled/listed tanks The material of tank construction
- The method of secondary containment for the tanks(s)
- The presence and method of collision protection
- The fire rating of adjacent building walls or interior storage rooms (if applicable)
- Either fencing or other forms of tamper protection are present (for LP-Gas tanks)
- Listed and labeled dispensing devices are to be installed (for dispensing tanks)
- Presence of documentation verifying the condition of used tanks
- Nearby electrical equipment installations are code compliant
 - Not only wiring that supplies the dispensing unit, but also all wiring within 30 feet.

Return correspondence provided by OSFM after a review of the application includes

- Review comments with specific comments to the review
- OSFM contact information for requesting an inspection after installation is completed.
- Copy provided to the local fire authority

Current average turnaround time for submitted AST applications is 10 weeks.**

Tanks may not be filled with product until an on-site inspection is conducted by OSFM.

CONTACT INFORMATION

OSFM Technical Services Section
James R. Thompson Center · 100 West Randolph Street · Suite 4-600 ·
Chicago, Illinois 60601
PHONE: 312-814-8960 FAX: 312-814-3459
E-MAIL: sfm.techservices@illinois.gov

OSFM Fire Prevention Division
1035 Stevenson Drive
Springfield Il. 67203
217-524-2714
Contact us at: <https://www2.illinois.gov/sites/sfm/Contact%20Us/Pages/default.aspx>

Web link

OSFM web page for all things AST
Applications / Frequently Asked Questions / Policies and Interpretations / Statutes and Rules
<https://www2.illinois.gov/sites/sfm/About/Divisions/Fire-Prevention-and-Building-Safety/AST/Pages/default.aspx>