

City of Fridley  
Fire Department  
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## Aboveground Installation of Fuel Storage Tanks Requirements

The installation of aboveground fuel storage tanks (AST), including piping and associated equipment shall comply with the Minnesota State Fire Code (MSFC) Chapters 22 and 34, applicable NFPA standards and Environmental Protection Agency Rules.

Below are general requirements from the Minnesota State Fire Code as well as City of Fridley provisions for installation of aboveground storage tanks. This is not a complete list and additional provisions specific to your installation will be required.

### **General Information:**

- A. Submittal of a fire permit application and a detailed site plan. (see submittal requirements)
- B. Supervision of the installation by a State Licensed storage tank contractor.
- C. The installation shall be in compliance with the Minnesota State Fire Code.
- D. Tanks, piping and all associated equipment shall be listed and approved.
- E. Tanks shall be constructed in compliance with NFPA 30 and bare a permanent label indicating an applicable standard used as the basis of design.
- F. Secondary containment (double-wall tank or dike) and/or spill containment may be required.
- G. When required by the local code official, multiple AST installations shall be protected by an approved fire protection system.
- H. Normal venting and emergency venting shall be provided in compliance with the fire code.
- I. Warning signs identifying the specific hazard shall be posted in approved locations determined by the code official. Sign lettering shall be white on a red background. Letters shall not be less than 3 inches in height with a ½ inch stroke.

## Additional Requirements for Motor Vehicle Dispensing:

A. A maximum of three AST's are allowed for dispensing at any single dispensing site. AST's shall not exceed 6,000 gallons for Class I liquids and 10,000 gallons for Class II liquids.

B. Grounding shall be provided in accordance with NFPA 780 to prevent accumulation of static electricity. Metallic tanks are considered self-protected from lightning if grounded and bonded in accordance with NFPA 780 and not the highest structure in the area.(SFM Policy #INS-1999-42)

## AST's/Dispensing:

A. Tanks shall be located no less than 50 feet from the nearest side of a public way, property line, building, or combustible storage on the same property.

- **Exception:** AST's which have a separation of at least 30 feet between the tank and the dispenser may reduce the distances between the AST, the public way, property line, building or combustible storage to 30 feet.

B. AST's shall be separated from their dispenser by at least 30 feet.

- **Exceptions:** Operations not open to the public that dispense Class I liquids from one AST of 560-gallon capacity or less may have the dispenser located on top of or adjacent to the AST and Operations not open to the public that dispense Class II liquids from no more than two AST's of 1,000-gallon individual capacity or less may have the dispenser located on top of or adjacent to the AST.

C. Dispensers shall be located 10 feet or more from property lines, 10 feet or more from buildings having combustible exterior wall surfaces or buildings with noncombustible exterior wall surfaces that are not part of a one-hour fire-resistance rated assembly or buildings having combustible overhangs.

- **Exception:** Canopies constructed in accordance with the IBC.

D. Unattended self-service stations are allowed when, as a condition of approval, the owner or operator:

- 1) Is accountable for daily site visits and regular equipment inspection and maintenance.
- 2) Posts dispenser operating instructions.
- 3) Posts emergency procedure instructions.
- 4) Provides an emergency shut-off device within 20-100 feet from dispensers.
- 5) Provides a telephone not requiring a coin to operate to notify the fire department in case of an emergency.
- 6) Dispensing equipment is programmed to limit uninterrupted fuel delivery to 25 gallons or the amount of fuel being dispensed shall be limited in quantity by a preprogrammed card as approved.

E. Signs prohibiting smoking (prohibited within 20' of dispensers—NFPA 30A, 9.2.5.4), dispensing into unapproved containers, and requiring vehicle engines to be stopped during fueling shall be conspicuously posted. When open to the public, a sign stating minimum age to dispense fuel is 16 years old.

F. Dispenser units shall be substantially anchored and protected from physical damage by mounting on a concrete island 6 inches or more.

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- G. An emergency shut off device is required in an approved location 20–100 feet from dispensers.
- H. Dispensers shall be equipped with listed and approved automatic-closing fire and impact valves.
- I. Dispenser hoses shall be equipped with listed and approved emergency breakaway devices.
- J. Where subject to vehicle damage, AST's shall be provided with approved vehicle impact protection such as 4-inch steel, concrete-filled guard posts. Guard posts shall be spaced not more than 4 feet apart, set not less than 3 feet deep into a 15 inch concrete footing and extends at least 3 feet above ground. Posts shall be placed not less than 3 feet from the protected object.
- K. Electrical wiring located in classified areas shall be installed suitable to the location in which it is located and in compliance with the State Electrical Code.

### **Submittal Requirements:**

- A. A completed permit application signed by a state licensed contractor.
- B. A check made out to the City of Fridley.  
(If paying by credit card, please call the office to make arrangements)
- C. Provide manufactures specification sheet for tank(s) and all appliances.
- D. Provide documentation of both individual and company MNPCA certification.
- E. Provide 2 sets of plans that indicate the following:
  - 1) Method of Storage
  - 2) Class of liquid and quantities to be stored
  - 3) Location of tank(s), piping and utilities
  - 4) Distances from buildings, property lines and public ways
  - 5) Location and layout of dispensing, pumping, loading and un-loading equipment
  - 6) Emergency Controls
  - 7) Portable Fire Extinguisher
  - 8) Description of impact protection
  - 9) Provisions for spill and secondary containment

### **Tank Installation Inspections required:**

- A. Pressure test of tank and piping
- B. Emergency shut-off test.

**Any questions, please contact the Fire Marshal at 763-572-3621.**