



DES MOINES FIRE DEPARTMENT AST SUBMITTAL CHECKLIST

A fire department permit is required to install a flammable or combustible liquid storage tank (Fire Prevention Code 46-1). Plans shall be reviewed and approved before the permit is issued. Subsequent to plan approval the permit can be obtained from the Office of Fire Prevention Bureau @ (515) 283-4240. Fees for the permit are based on the following tank capacity criteria:

- For each tank installation up to and including 200,000 gallons = \$115.00
- For each tank installation 200,001 to and including 1,000,000 gallons = \$150.00
- For each tank installation exceeding 1,000,000 gallons = \$225.00

STATIONARY ABOVEGROUND STORAGE TANKS OUTSIDE OF BUILDINGS

- The storage of Class I or II liquids in aboveground tanks is prohibited in fire zones 1 and 2 as defined in Section 11-8 of the Fire Prevention Code.
- The storage of Class I or II liquids in aboveground tanks in fire zone 3 shall be in approved 2-hour protected aboveground tanks meeting the descriptive criteria listed in UL 2085 (*Standard for Insulated Aboveground Tanks for Flammable Liquids*), UFC Appendix II-F (*Protected Aboveground Tanks for Motor Vehicle Fuel-Dispensing Stations Outside Buildings*) or SWRI 93-01 (*Testing Requirements for Protected Aboveground Flammable Liquid Fuel Storage Tanks*).
- Aboveground petroleum tanks greater than 1,100 gallons in capacity must be registered with the State Fire Marshal's Office.

The design, fabrication and construction of tanks shall be in accordance with recognized good engineering practice and nationally recognized standards. Each tank shall bear a permanent nameplate or marking indicating the standard used as the basis for design. Provide manufacturer's specifications, listing information and cut sheets for the tank(s). IFC 3404.2.7

Specify quantities and types of liquids to be stored.

Verify location of tank(s) with respect to property lines of properties which can be build upon, public ways and nearest important building on the same property will be in accordance with NFPA 30: Table 2-1. *For protected aboveground tanks see IFC 22: Table 2206.2.3*

Verify separation between adjacent tanks will be in accordance with IFC 3404.2.9.5.2 & NFPA 30: Table 2-7. *For protected aboveground tanks see IFC 22: Table 2206.2.3*

Verify tank(s) will be vented in accordance with IFC 3402.2.7.3 for normal venting & IFC 3404.2.7.4 for emergency relief venting for stationary tanks.

Verify drainage control and diking will be provided in accordance with IFC 3404.2.10.

Verify vehicle impact protection will be provided in accordance with IFC 312.

Verify fire apparatus access will be provided and maintained in accordance with IFC 503.

Verify supports, foundations and anchorage for aboveground tanks will be in accordance with NFPA 30.

Verify piping, valves and fittings will be in accordance with IFC 3403.6.

Verify Class I electrical equipment locations are identified and protected in accordance with IFC Table 3403.1.1.

Submit plans to: **Jonathan Lund, Fire Protection Engineer**
Des Moines Fire Department
900 Mulberry St.
Des Moines, IA 50309