ABOVEGROUND STORAGE TANKS
FLAMMABLE & COMBUSTIBLE LIQUIDS

KELLER FIRE-RESCUE
FIRE MARSHAL'S OFFICE

These guidelines shall be followed when an aboveground storage tank is relocated, modified or otherwise installed within the City of Keller. This guide is to apply only to the installation, storage and/or use of flammable liquids, as defined by the 2021 International Fire Code. All aboveground storage tank requirements for the purposes of this guideline and any other guidelines or requirements of Keller Fire-Rescue shall conform to the 2021 International Fire Code, as amended and adopted by the City of Keller, and NFPA 30, Flammable and Combustible Liquids Code.

This guide does not replace, nor supersede any codes and/or ordinances adopted by the City of Keller, or determinations and positions of the Fire Marshal.

2021 International Fire code as Amended and Adopted. 5704.2.9.6.1 Locations where above ground tanks are prohibited. The storage of Class I and Class II liquids in above ground tanks outside of buildings is prohibited within the city limits unless approved by Special Use Permit and with approval of the Fire Marshal.

INSTALLATION REQUIREMENTS

1. The tank(s) shall be provided with secondary containment.
2. The tank(s) shall meet, or exceed UL 142, and the provisions of NFPA 30, 2018 Edition.
3. Tank(s) shall be constructed of steel. Poly-tanks shall not be permitted.
4. When the installation location may be subject to vehicular impact, bollards designed IAW 2018 IFC Section 312, or a UL 2085 tank may be required, based upon a review of the hazards and protection provided.
5. The tank must display the UL Listing placard.
6. Normal and emergency venting shall be provided. Emergency venting shall include the calculations to determine the minimum vent sizing in CFH.
7. Approved flame arrestors, when required by API 2028, and venting devices shall be installed in the all vent lines.
8. A spill container having a capacity of not less than 5 gallons shall be provided at each fill connection.
9. An overfill prevention system shall be provided for each tank to prevent being filled in excess of 95% capacity. The system must meet the requirements of 2021 IFC Section 5704.2.7.5.8 and 5704.2.9.7.5
    a) Provide an independent means of notifying the person filling that the fluid level has reached 90 percent of tank capacity by providing a tank level gauge marked at 90 percent of tank capacity, or other approved means.

b) Automatically shut off the flow of fuel to the tank when the quantity reaches 95 percent of tank capacity.
c) Reduce the flow rate to not more than 15 gallons per minute so that at the reduced flow rate, the tank will not overflow for 30 minutes, and automatically shut off flow into the tank so that none of the fittings on the top of the tank are exposed to product because of overfilling.

10. The tank fill connection shall be provided with a means for making a direct connection to the tank's vehicle fuel delivery hose so that no fuel is exposed to the open air during the filing operation.
11. Anti-siphon devices shall be installed in each pipe connected to the AST, where the piping extends below the level of the tank.
12. Emergency shut-offs shall be provided during filling and dispensing operations.
13. Relief valves shall be provided.
14. Pump dispensing devices shall be equipped with vapor-recovery connections.
15. Appropriate labeling and signs in accordance with IFC 2021, Sections 5704.2.3 5704.2.3.1, must be provided.
    a) "Smoking or Open Flames Prohibited"
    b) Emergency procedures
    c) NFPA 704 or equivalent placard specifically identifying the material therein.
16. All piping and piping systems shall be designed in accordance with NFPA 30, 2021 Edition and the 2021 IFC Section 5703.6.2. To expedite the plan review and inspection processes, please refer to the information listed below.

PERMITTING/SUBMITTAL REQUIREMENTS

1. Each submittal shall include a copy of the signed, executed contract.
2. Submittal package shall indicate compliance with all of the above referenced requirements.
3. Provide a copy of the Approved Specific Use Permit granted by Keller City Council.
4. Provide a written description and intent of the installation.
5. PDF Drawings of the installation and conditions shall including the following;
    a) Interior installations shall indicate all buildings, structures and walls.
    b) Exterior installations shall indicate all buildings, structures, walls, fire lanes and fire hydrants.
6. Full equipment listing of all tanks, piping, valves, and other equipment.
1. Manufacturer documentation for all parts and materials used in the project.
2. Indicate the maximum working pressure of the tank(s) and piping.
3. Drawings shall be generated by the installing company specific to the installation. Drawings shall show plan view and other pertinent information
4. Provide documentation of tank testing and ability to hold a vacuum. This is in addition to any testing required by the Fire Department.
5. Submittal package must identify and include all the above requirements to be accepted for review.
6. Installation or construction on site shall be prohibited until a Permit has been issued. Any work performed prior to the issuance of this permit may result in a fine for violation of Section 105.1.1 of the 2021 International Fire Code as amended and adopted.