



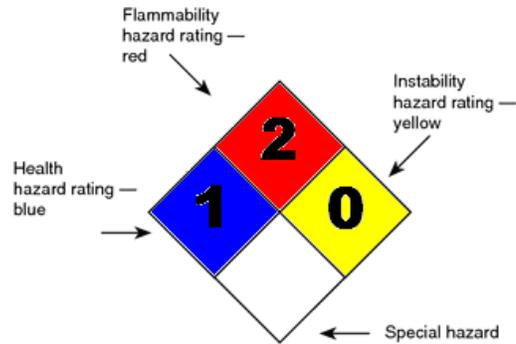
## **FORT WORTH FIRE DEPARTMENT REQUIREMENTS FOR ABOVE-GROUND FUEL TANKS FOR FUEL-FIRED EQUIPMENT (Not for Dispensing)**

This document is intended to provide guidance regarding compliance with Flammable and Combustible Liquids Tank Permit requirements for fuel tanks for fuel-fired equipment, such as emergency generators, in accordance with the Fort Worth Fire Code. This document does not address tanks installed for the purpose of dispensing fuel or underground tanks – reference the Fort Worth Fire Code Chapters 22 and 34 for requirements associated with these types of installations. All Section Numbers indicated in this document refer to the Fort Worth Fire Code, unless noted otherwise.

1. **Flammable and Combustible Liquids Construction Permit** is required to install, alter, remove, or abandon a fixed tank installation containing flammable or combustible liquids.
2. **Outside** above-ground storage tank (AST) shall be either a UL 2085 (listed protected secondary containment tank) or a UL 142 (non-protected listed secondary containment tank) tank, or other AST complying with all requirements of Chapter 34 of the Fire Code.
  - a. Normal vent shall extend to 12 ft. above adjacent grade. (Section 3404.2.7.3)
  - b. All vents shall extend to discharge directly to atmosphere, i.e. outside of generator housing, and be located at least 5 ft. from any ignition source, including engine exhaust. (Section 3404.2.7.3 and 3404.2.7.4)
  - c. The fill connection inlet shall be provided with a minimum 5 gallon spill container with drain. (Section 3404.2.9.6.8)
  - d. All tanks require vehicular impact protection per Section 312 where subject to such potential damage.
  - e. Minimum setback requirements from buildings and property lines must comply with NFPA 30, dependent on size and type of tank.
3. **Inside** AST shall comply with Chapter 34. Maximum capacity is 660 gallons for UL 142 double walled tank containing diesel (Class II combustible liquid). If tank exceeds that capacity, construction requirements change to H-3 occupancy.
  - a. All fill and vent lines, including all emergency relief vents, shall terminate outside of the building, located at least 5 ft. away from building openings, the property line, and ignition sources, including engine exhaust. Normal vent shall extend to at least 12 ft. above adjacent grade. (Section 3404.2.7.3.3, 3404.2.7.4, and 3404.2.7.5.2)
  - b. The fill connection inlet shall be provided with a minimum 5 gallon spill container with drain and appropriate signage (NFPA 704). (Section 3404.2.7.5.6 and 3404.2.9.6.8)
4. **All** tanks require overfill prevention, per Section 3404.2.9.6.6, including 90% high level alarm and 95% automatic shut-off.

Exception: Outside UL 142 tanks  $\leq$  1,000 gallons shall only require the 90% alarm.
5. **All** tanks require signage, as per Section 3404.2.9.6.6 and 3403.5.
  - a. Provide sign at the fill point for the tank, documenting the filling procedure, which shall require the fueling operator to determine the volume required for 90% capacity prior to filling, and tank calibration chart.
  - b. Provide “No Smoking / No Open Flames” type signage, tank contents label, and NFPA 704 diamond hazard signs, per Section 2703, for all installations. NFPA 704 signs shall have hazards labeled as per the Material Safety Data Sheet associated with that commodity and having minimum letter height of 6 inches for outside installations and 4 inches for inside installations. NFPA 704 signs shall be located on the tank, at entrances to facilities where the tank is located, and at locations specified by the fire code official. Format example:

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6. **All tanks require field inspection prior to filling the tank.**
- a. Field inspector shall witness soap test (air test at 110% but no less than 5 psi for a minimum of 10 minutes) of all piping (fuel and vents), per Section 3403.6.3, unless the tank is located outside and is integral to the generator, i.e. belly tank.
  - b. Field inspector may require tightness test of tank, as per Section 3404.2.12 and NFPA 30 requirements (air test between 3 and 5 psi for not less than 1 hour).
  - c. Preparations should be made to have a fuel truck present upon completion of all tightness testing of piping/tank to fill the tank for verification of the overfill protection to be witnessed by the field inspector.
  - d. Contact 817-392-6846 to schedule inspections.

Reference the Fort Worth Fire Code for additional information concerning requirements associated with these types of installations.

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bdm*

## **FIRE DEPARTMENT – BUREAU OF FIRE PREVENTION**

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