



INSPECTION CHECKLIST

Underground Flammable Combustible Liquid Tank Installation

The following requirements apply to newly-installed underground tanks used for dispensing flammable or combustible liquids. Since these are often found at service stations, the requirements for dispensing are also included.

Y = Meets Requirements; N= Does Not Meet Requirements

Y N

UNDERGROUND TANKS:

- Tanks designed, fabricated, constructed and installed per NFPA 30 (MSFC 5704.2.7) & MSFC 5704.2.11
- Corrosion protection required (MSFC 5703.6.5)
- Flexible joints required (MSFC 5703.6.9):
 - Piping connects to UG tanks
 - Piping terminates at pump islands and vent risers
 - At points where differential movement in the piping can occur
- Normal venting provided (MSFC 5704.2.7.3)
- Vent pipe terminates at least 12 ft. above finished ground level (MSFC 5704.2.7.3.3)
- Vent pipe terminates at least 5 ft. from building openings or lot lines (MSFC 5704.2.7.3.3)
- Vent-line flame arresters and pressure-vacuum vent required for flammable liquid tanks (MSFC 5704.2.7.3.2)
- Fill pipe and discharge lines shall enter only through top of tank (MSFC 5703.2.7.5.5.2)
- Fill lines to be sloped toward tank (MSFC 5704.2.7.5.5.2)
- Tight fill device required for tanks greater than 1,000 gallons (MSFC 5703.2.7.5.5.2)
- Minimum distance from tank to basement, pit, building, or property line – 3 feet (MSFC 5704.2.11.1 (2))
- Minimum separation distances between tanks – 1 foot (MSFC 5704.2.11.1 (3))
- Tanks to be surrounded with at least 6 inches of non-corrosive, inert material (such as clean sand) – (MSFC 5704.2.11.2)
- Spill container & overflow protection required (MSFC 5704.2.11.3) & Depth and Cover (MSFC 5704.2.11.2)
- Leak detection required (MSFC 5704.2.11.4.2)
- Upon installation, tanks and piping to be tested per NFPA 30 (MSFC 5704.2.12.1)

Y N

DISPENSING DEVICES:

- Located at least 10 feet from property lines (MSFC 2303.1)
- Located at least 10 feet from combustible buildings or overhangs (MSFC 2303.1)
- Located so all portions of vehicles be re-fueled shall be on premises (MSFC 2303.1)
- Located so the nozzle fully extended cannot reach within 5 feet of building openings (MSFC 2303.1)
- Located 20 feet or more from fixed sources of ignition (MSFC 2303.1)
- Emergency disconnect switch to be readily accessible (MSFC 2303.2)
 - Clearly identified: **Emergency Fuel Shut-off** (MSFC 2303.2)
 - Located at least 20 feet from dispensers (MSFC 2303.2)
 - Located within 100 feet of dispensers (MSFC 2303.2)
- Supervision of dispensing:
 - Attended Self-Service (MSFC 2304.2)
 - Unattended Self-Service (MSFC 2304.3)
- Smoking & open flames prohibited (MSFC 2305.4)
- Vehicles to be shut-Off during fueling (MSFC 2305.4)
- Fire extinguisher (2-A:20-B:C minimum-rated) to be within 75 feet of pumps, dispensers, and fill openings (MSFC 2305.5)
- Dispensers to be mounted on concrete Island (min. 6" in height) or have vehicle impact protection (MSFC 2306.7.3)
- Fire/Impact valve required at base of dispenser (MSFC 2306.7.4)
- Dispenser hose – maximum length of 18 feet (MSFC 2306.7.5)
- Dispenser hose to have break-away device (MSFC 2306.7.5.1)
- Nozzles to be automatic closing (can have latch open device) (MSFC 2306.7.6)

Version 3.0 effective March 31, 2020

This checklist is intended as a guide to assist fire inspection personnel in identifying general fire and life safety hazards, other possible code requirements may apply. Please refer to other checklists for information on certain occupancies/topics.

MSFC = Minnesota State Fire Code