



Lorain Fire Department
Fire Prevention Bureau
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Lorain, OH 44052
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FACTS & GUIDELINES

Installation of Flammable and Combustible Above Ground Storage Tanks

Closed Type System

(Bulk facilities, emergency generator, waste oil, industrial application, *non-dispensing*)

1. A permit shall be applied for to remove, install, abandon, alter or place temporarily out of service any stationary flammable or combustible liquid storage tank or any line or dispensing device connected thereto. [OAC 1301:7-7-34(A)(4) (OFC 3401.4) – (AC 1301:7-7-01(E)(1)(a) (OFC 105.1.1)] The permit shall be obtained from the local fire marshal.
2. The proposed tank shall be listed for above ground use for containing flammable and combustible liquids and be designed and constructed in accordance with recognized standards or approved equivalents. [NFPA 30 (1008 edition), Section 21.4.2.] A drawing of the tank from the manufacturer showing the tank and its appurtenances are approved for the intended use shall be submitted with the permit application.
3. Tanks shall be installed in accordance with the Ohio Fire Code Chapter 34 and the requirements specified in NFPA 30 (2008 edition).
4. Depending upon the size of the tank and tank type.....distances to buildings, property lines and public ways shall be met in accordance with 2011 Ohio Fire Code Chapter 34 and NFPA 30 (2008 edition).
5. Diking shall be provided for the tank. (A double-wall tank / secondary containment tank would be acceptable for meeting this code requirement.)
6. The public shall be safeguarded from access to or unauthorized entry to the storage area. The tank can be enclosed in a chain link fence, no less than six (6) feet in height and no less than three (3) feet out from the tank on all sides unless the property has a perimeter security fence to prohibit public access to the storage tank area.
7. The vehicular barrier protection (bollards, guardrail, bumper posts) shall e located on all sides of the tank subject to vehicle damage. These are required to be no less than three (3) feet from the tank and four (4) foot on center. Maximum height is required to be no less than 36 inches.
8. Any underground piping shall be listed and labeled for its use and shall be installed in accordance with the manufacturers' instructions and protected from corrosion. Any above ground piping shall be listed and labeled for its use and shall be protected from vehicles and corrosion and supported properly. (NFPA 30, Chapter 5)

9. Overfill prevention shall be provided. An alarm shall sound at 90% tank capacity when filling and an overfill prevention device shall be capable of stopping the flow of product into the tank at 95% capacity. OAC 1301:7-7-34(D)(2)(v)(h); OFC 3404.2.5.8. EXCEPTION: Tanks of 1,320 gallons or less.
10. A spill container having a capacity of not less than 5 gallons shall be provided for each fill Connection. (OFC34)
11. Normal vent lines are required to be located 12 feet above the adjacent ground level and shall be unobstructed and outside any enclosure, such as those tanks utilized as sub-base generator tanks.
12. Emergency venting is required for both the primary tank and the secondary containment / closed diked area.
13. Placards shall be in accordance with NFPA 704. Tanks of 100 gallons in capacity or more shall bear a label and placard identifying the material therein. (OAC 3403.5 and OFC 2703.5)
14. "No Smoking" signs shall be posted within 25 feet of outdoor storage, dispensing or open use areas. (OFC 2703.7.1)
15. Prior to final approval, the inspector will need to see approval from the building official having jurisdiction for the tank foundation and electrical work, if associated with the tank. Contact the appropriate authorized building department for approval of these issues (Ohio Building Code, Sections 101.2, 1801.1 and 2701.1).

This summary is not intended to include all requirements set forth in the Ohio Fire Code, the Ohio building code or NFPA 30. This information is to assist you with the beginning stages of your design process.