

## 2.6. Outdoor Tank Storage (Fixed Tank and Fixed System Tank)

- 2.6.1.** The storage of Flammable and Combustible Liquids in Tanks in any occupancies, indoor or outdoor shall comply with the general requirements of **Table 13.1. General Requirements**, this section and **Table 13.4. Storage of liquids in Tanks**.
- 2.6.2.** This section shall apply to “Fixed Tanks” of following capacity.
- Fixed tanks that exceed 60 Gallons. (230 L) capacity.
  - Portable tank that exceed 660 Gallons. (2500 L) capacity.
  - Intermediate Bulk Containers that exceed 793 Gallons (3000 L) capacity.
- 2.6.3.** Any portable tanks not exceeding 660 Gal (2500 L) capacity and intermediate Bulk containers not exceeding 793 Gal (3000 L) capacity but are connected to a “fixed” system, closed or otherwise, shall comply to this section.

**Table 13.4.: Storage of Liquids in Outdoor Fixed Tanks**

ITEM	REQUIREMENTS
<b>1. GENERAL</b>	<ol style="list-style-type: none"> <li>Storage of Class II and Class III liquids heated at or above their flash points shall follow the requirements for Class I Liquids.</li> <li>Tanks shall be permitted to be of any shape, size or type provided they are tested, approved and listed for the purpose.</li> <li>Metal tanks shall be welded, riveted and caulked, or bolted or constructed using combination of any of these methods.</li> <li>Tanks designed and intended for aboveground use shall not be used as underground tanks.</li> <li>Tanks designed and intended for underground use shall not be used as above ground tanks.</li> </ol>
<b>2. DESIGN AND CONSTRUCTION OF STORAGE TANKS</b>	<ol style="list-style-type: none"> <li>Tanks shall be of steel or other approved non-combustible material.</li> <li>tanks constructed of combustible material shall be specifically approved and listed for the type of liquid and type of storage method.</li> <li>unlined concrete tanks shall be permitted to be used for storing liquids that have a gravity of 40<sup>0</sup> API or heavier.</li> <li>An engineering evaluation shall be made if the specific gravity of the liquid to be stored exceeds that of water or if the tank is designed to contain liquids at a liquid temperature below –18<sup>0</sup>C.</li> <li>See <b>Section 6.</b> for tank material approvals and test standards.</li> </ol>
<b>3. VENTING</b>	<ol style="list-style-type: none"> <li>Storage tanks shall be vented to prevent the development of vacuum or pressure above 1 psi, above maximum operating pressure, that can distort the tank or exceed the rated design pressure.</li> <li>Normal vents shall be at least as large as the largest filling or withdrawal connection, but in no case shall be less than 32 mm nominal inside diameter.</li> <li>Normal vents shall be located above the maximum normal liquid level.</li> <li>Normal venting shall be provided for primary tanks and each primary compartment of compartmented tanks.</li> <li>Vents shall be sized and designed and installed as per API Standard 2000.</li> <li>For tanks equipped with vents that permit pressures to exceed a gauge pressure of 2.5 psi and for low pressure tanks and pressure vessels, the outlet of all vents and vent drains shall be arranged to discharge in a manner that prevents localized overheating of or flame impingement on any part of the tank, if vapors from the vents are ignited.</li> <li>Aboveground storage tanks shall have emergency relief venting in the form of integral construction or a device that will relieve excess internal pressure caused by an exposure to fire.</li> </ol>