

STANDARD INFORMATION

Standard: UL 142

Standard ID: Steel Aboveground Tanks for Flammable and Combustible Liquids [UL 142:2025 Ed.11]

Previous Standard ID: Steel Aboveground Tanks for Flammable and Combustible Liquids [UL 142:2019 Ed.10+R:21Jan2021]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **December 12, 2027**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: Per our accreditation, Intertek is required to review reports against the standard revisions to confirm compliance. Once compliance is confirmed, the standard reference in the report is updated to show continued compliance to the technical requirements of the standard. Reports not updated to this version by the effective date above will be withdrawn.

Overview of Changes:

- Emergency venting requirements
- Manway constructions
- Additional requirements for vertical tanks with low-sloped bottoms
- Accessories other than ladders
- Top load test
- Revision of marking
- Tanks with operating pressure in excess of 1 psi and less than 15 psi

Specific details of new/revise requirements are found in table below

Current Listings Not Active? – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records. We will do this at no charge as long as Intertek is notified in writing prior to the review of your reports.



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CLAUSE	VERDICT	COMMENT
		<p>Additions to existing requirements are <u>underlined</u> and deletions are shown lined-out below.</p>
1	Info	<p>Scope</p> <p><i>New clause added;</i></p>
1.2		<p>These requirements additionally cover steel primary, secondary and diked type atmospheric storage tanks intended for the storage of noncorrosive, stable flammable and combustible liquids which operate at a pressure over 1 psi and less than 6 psi (low pressure tanks) are covered in Section 14.</p>
8	Info	<p>Venting</p> <p><i>New clause added;</i></p> <p>A vent opening that provides for emergency venting shall be sized in accordance with Column 3 of Table 8.1, for the necessary capacity assigned to the vent opening.</p> <p>Exception: If the tank is provided with a factory installed vent device, see 8.7 for sizing.</p>
8.6		<p>a) Normal vents, either alone or in conjunction with a dedicated emergency vent, are not prohibited from use for emergency venting of the primary tanks if the vent openings are marked as specified in 55.1.1(e).</p> <p>b) A vent opening that provides for both emergency and normal venting shall have a total venting capacity not less than specified in Column 2 of Table 8.1, in addition to the requirements of 8.4.</p> <p>c) When combined normal/emergency per 8.6(b), or multiple, vent openings are used to meet the emergency venting capacity requirements, the minimum inside diameter for a given nominal pipe size shall be used when calculating the total emergency venting capacity of the tank (emergency vent capacity plus normal vent capacity).</p> <p>Exception: Factory installed vent devices sized per 8.7 may have their flow ratings added together to determine the total emergency venting capacity of the tank.</p>
8.7		<p><i>New clause added;</i></p> <p>If the tank is provided with a factory installed vent device, the vent device shall comply with UL/Ulc 2583 and shall be sized according to 8.4 for normal venting, or 8.6 for emergency venting. For emergency vent devices, the marked flow rating shall not be less than the minimum flow rating per Column 2 of Table 8.1.</p>



CLAUSE	VERDICT	COMMENT
		<i>New clause added;</i>
8.11		Venting requirements for the primary containments of compartment tanks per Section 15 shall be determined on a compartment-by-compartment basis.
9	Info	Manholes
		<i>New clause added;</i>
		Manway constructions other than those shown in Figure 9.1, Figure 9.2, Figure 9.3, Figure 9.4, and Figure 9.5 shall be evaluated using one of the following methods:
9.7		a) For manways located above the maximum liquid level line of the tank: The Tank Leakage Test per Section 44. b) For manways located below the maximum liquid level line of the tank: The Hydrostatic Strength Test per Section 45, except the test pressure shall be two times the calculated pressure at the bottom of the manway opening when the tank is filled to the maximum height.
		<i>New section added;</i>
		Tanks Storing Liquids at a Pressure Greater than 1 psi
14		Tanks optionally covered for storage of liquids and that operate at a pressure over 1 psi shall meet the following construction and performance requirements based on the maximum operating pressure identified in the 55.1.1(h) marking. See standard for details.
		<i>New section added;</i>
		Compartment Tanks
15		A bulkhead of a compartment tank shall be constructed so that leakage through any bulkhead joints will not be directed from one compartment to another. See Figure 15.1 for acceptable bulkhead constructions. Bulkheads are not allowed in tanks over 144 inches (3.66 m) in diameter. See standard for details.
19	Info	Construction
19.3	Info	Tank top (roof)
		The top of a single wall and outer shell of a secondary containment vertical tank shall be dished or conical.
19.3.1		<u>Exception: Flat top roofs for vertical tanks are acceptable provided they are compliant with the Top Load Test, Section 46.</u>



CLAUSE	VERDICT	COMMENT
19.4	Info	Tank bottom (floor) <i>New clause added;</i>
19.4.3		The tank bottom shall be horizontal or angled at a maximum of 5°. If angled, the skirt and any structural members used to support the tank bottom shall meet the requirements of 34.3.
22	Info	Performance
22.2	Info	Top load test <i>New clause added;</i>
22.2.1		The tank shall be subjected to the Top Load Test, Section 46.
30	Info	Performance Test
30.2	Info	Top load test <i>New clause added;</i>
30.2.1		The tank shall be subjected to the Top Load Test, Section 46.
55	Info	Marking Elements
55.1	Info	All tanks Each tank shall be marked with:
55.1.1		<u>h) Tanks complying with Section 14 shall be marked with the maximum pressure under which the tank can operate, "Maximum pressure is _____".</u>
55.5	Info	Hydrostatic strength test exception
55.5.1		If a tank is subjected to a gauge pressure 15 psi (103 kPa) hydrostatic test pressure as covered in the Exception to 45.3.1(b), the tank shall be marked to indicate a maximum leakage test gauge pressure of 3 psi (21 kPa) <u>for rectangular tanks and 2-1/2 psi (17 kPa) for vertical tanks.</u>