STANDARDS UPDATE NOTICE (SUN)
ISSUED: April 20, 2020

STANDARD INFORMATION

Standard: UL 142
Standard ID: Steel Aboveground Tanks for Flammable and Combustible Liquids [UL 142:2019 Ed.10+R:22Jan2021]
Previous Standard ID: Steel Aboveground Tanks for Flammable and Combustible Liquids [UL 142:2019 Ed.10]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **February 28, 2023**

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 Reports not updated to this version by the effective date above will be withdrawn.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:

- Revision of requirements for revised OSHA references to correct current inaccuracies
- Add requirements for double wall manways for aboveground tanks
- Addition of section for Alignment of Structural Members

Specific details of new/revised 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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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.

STANDARD INFORMATION

CLAUSE	VERDICT	COMMENT
		Additions to existing requirements are underlined and deletions are shown ~~lined out~~ below.
36	Info	**Ladders**
36.1		Exterior ladders shall comply with the construction and performance requirements in accordance with Occupational Safety and Health Standards, Title 29 of the Code of Federal Regulations, Part 1910, Subpart D, Section 1910.23 Ladders Subsections (b) General Requirements for All Ladders items (2) and (7), and (d) – Fixed Ladders items (1), (2), (3), (7), (8), (11) and (13), and Section 1910.24 Step Bolts and Manway Steps Subsections (a) and (b).
36.3		All ladders shall be tested or calculated to withstand, the minimum static loads ~~of 1000 pounds (454 kg) for ladders with a climb of 10 feet (3 m) or less and 2000 pounds (909 kg) for ladders with a climb of greater than 10 feet. Suitability shall be determined by test as described in 36.4 and 36.5 or by calculations~~ as described in 36.5 applied to 3-1/2 inch wide blocks for 1 min without damage to or permanent deformation of the ladder or tank.
36.5		Static Load (Ladders) – Ladders with a length of climb of 10 feet (3 m) or less shall support a static load of 1000 pounds (454 kg) applied for 1 minute to the center of the longest rung. Ladders with a length of climb of greater than 10 feet shall support a static load of 2000 pounds (909 kg) applied to the center of two rungs spaced 10 feet apart.
37	Info	**Stairs and Runways**
37.1		Stairs shall comply with the construction and performance requirements in accordance with Occupational Safety and Health Standards, Title 29 of the Code of Federal Regulations, Part 1910, Subpart D, Section 1910.25 Stairways Subsections (b) General Requirement items (1) to (9) except ship stair, and (c) Standard Stairs items (1) to (4), or for vertical cylindrical tanks (d) Spiral Stairs items (1) to (5).
37.2		Runways shall comply with the construction and performance requirements in accordance with Occupational Safety and Health Standards, Title 29 of the Code of Federal Regulations Part 1910, Subpart D, Sec 1910.28 Subsections (a) General item (1), (b) Protection from Fall Hazards items (5) runways and similar walkways (i) & (ii) and (11) stairways items (i) & (ii).
37.3		***New clause added;*** Guardrails on Stairs and Runways shall be provided for fall protection in accordance with Section 38. Runways used below the top level of the tank are only required to have a guardrail on one side.

CLAUSE	VERDICT	COMMENT
37.5		Stair Static Load – A static load of 5X the rated load or minimum 1000 pounds (454 kg) is to be evenly distributed over a i1.0 ft x 2.0 ft area on the center of the longest unsupported span of the runway for a period of one minute.
37.6		***New clause added;*** Runway Static Load – A static load of the rated load or at least 1000 pounds (454 kg) is to be evenly distributed over a 1.0 ft x 2.0 ft area on the center of the longest unsupported span of the runway for a period of one min.
38	info	**Guardrails**
38.1		Guardrails shall comply with the construction and performance requirements in accordance with the Occupational Safety and Health Standards, Title 29 of the Code of Federal Regulations, Part 1910, Subpart D, Section 1910.29 Subsections (a) General Requirements item (1) and (b) Guardrail Systems items (1) to (14).
38.2		All guardrails shall withstand the loads described in 38.3 and 38.4 applied using a 3-1/2 by 3-1/2 inch (89 by 89 mm) steel plate, without damage to or permanent deformation of the guardrail.
38.3		***New clause added;*** Guardrail Static Load – A static load of 200 pounds (91 kg) shall be applied downward and outward within 2 inches (5 cm) of the top edge, at a point on top of the rail located midway between the supports for at least one minute. The top rail shall also not deflect to less than 39 inches (99 cm) above the walking surface.
38.4		***New clause added;*** Midrail Static Load – A static load of 150 pounds (68.3 kg) shall be applied downward or outward on midrails, screens, mesh, intermediate vertical members, solid panels, and other equivalent intermediate members located midway between the supports for at least one minute.
52	Info	**Marking Elements**
52.1	Info	**All tanks**
52.1.1		Each tank shall be marked with: g) "____lb load" rating if evaluated for the optional 5X rated load in 37.5 for Stairs and/or 37.6 for Runways.
9	Info	**Manholes**
9.6		***New clause added;*** All shell manways in a vertical secondary containment tank, as well as head or below-liquid-level manways in a horizontal or rectangular secondary containment tank, may also be secondarily contained using a larger manway, meeting the dimensional requirements of Table 9.5 and as shown in Figure 9.5.

CLAUSE	VERDICT	COMMENT
50A		***New section added;*** **Alignment of Structural Members**
50A.1		For tank with supports, unless there is a different specification from the purchaser on the shop drawing, the alignment shall be: a) For horizontal cylindrical tanks, within ±2 circumferential degrees and a height differential between 3 or more legs of < 3% of the tank length, and b) For all other tanks, a height differential between 3 or more legs of < 3% of the tank length.
50A.2		For generator base tanks, unless there is a different specification from the purchaser on the shop drawing, the generator connections shall be: a) For bolts, bolt holes or similar mounts, within ±1.0” in the X and Y planes between 3 or more points, and b) A height differential between 3 or more legs of < 3% of the length between the mount point ends.
50A.3		For Part V walking and working surface accessories, unless there is a different specification from the purchaser on the shop drawing, the connection points for bolts, bolt holes or similar mounts shall seat the device without creating instability and uneven loading.