

## Standard Information

**ADDENDUM SUN: This ADDENDUM establishes the Continuing Certification approach to Enclosures for Electrical Equipment, and Extends the Effective Date to December 23, 2019. This ADDENDUM replaces SUN issued November 2, 2015.**

**Standard Number:** UL 50 / CSA C22.2.94.1

**Standard Name:** Enclosures for Electrical Equipment, Non-Environmental Considerations

**Standard Edition and Issue Date:** 13<sup>th</sup> Edition Dated October 16, 2015

**Date of Previous Revision to Standard:** 12<sup>th</sup> Edition Revised April 27, 2012

## Effective Date of New/Revised Requirements

**Effective Date:** December 23, 2019

## Impact, Overview, Fees and Action Required

### Impact Statement:

- December 23, 2019 has been established as Effective Date for the change in certification requirements from UL 50 12th Ed.
- Existing certifications of these controllers to UL 50 will be allowed to maintain certification and not be withdrawn on or after the Effective Date of December 23, 2019, provided there are no changes to the enclosure design that require a certification decision in accordance with the latest published Standard Revision. See table below for a summary of requirements. For example, changes to the enclosure design, ratings, or the use of alternate components requiring a certification decision submitted on or after the Effective Date of December 23, 2019, the enclosure (in its entirety) will need to be evaluated to the latest Standard Revision, UL 50 13th Ed.
- Until September 4, 2016, enclosures may be investigated to UL 50 11th, 12th, or 13th Ed. After the December 23, 2019, only the latest Standard Revision of UL 50 13th Ed. will be used for enclosure investigations.

### Overview of Changes:

The 13<sup>th</sup> edition of UL 50 was issued to include the following requirements:

- Addition of environmental Type ratings 3X, 3RX, and 3SX
- Clarification of types of cast metal suitable for use as an enclosure
- Equipment door opening 90 degrees from the closed position
- Certification Requirement Decision for nonmetallic-sheathed cable clamps
- Revision to requirement of cover and flange overlap for cabinets used as panelboards

***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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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.***

## Description of New/Revised Technical Requirements

Clause	Verdict	Comment
1	Info	<b>Scope</b> <i>The second edition of UL 50E includes the addition of environmental Type ratings 3X, 3RX, and 3SX.</i>
6	Info	<b>Construction</b>
6.5	Info	<b>Cast metal enclosures</b>
6.5.5		<i>Additions to existing requirements are <u>underlined</u> and deletions are shown <del>lined out</del> below.</i>  An enclosure may be constructed of iron, steel, copper, brass, or aluminum cast metal. Aluminum-base cast metal containing less than 80% aluminum shall not be used. Magnesium-base cast metal shall not be used. Zinc-base <del>die</del> -cast metal shall not be used for an enclosure.
6.7	Info	<b>Covers and doors</b>
6.7.1.2		<i>New clause added;</i>  The enclosure shall be constructed so that all doors are able to be opened to a minimum of 90° from the closed position.
6.10		<b>Connections for wiring systems</b>
6.10.5.1	Info	<i>Additions to existing requirements are <u>underlined</u> and deletions are shown <del>lined out</del> below.</i>  A separable or integral clamp provided <del>in an</del> as part of a factory assembled enclosure and intended for securement of nonmetallic-sheathed cable shall comply with the applicable requirements of Annex B, Ref. <u>No. 5 and No. 6. Size of openings shall comply with Clause 6.10.5.2.</u>
6.10.5.2		<i>New clause added;</i>  A separable or integral clamp provided as part of a factory assembled enclosure and intended for securement of nonmetallic-sheathed cable shall substantially close the opening in the enclosure as determined by the following:  a) the clamp, constructed or mounted as part of the factory assembled enclosure with no cable installed, shall inhibit the passage of a 2.5 mm (3/32 inch) diameter probe, no force being applied to the probe that would result in repositioning of the clamp; or  b) the clamp shall be provided, at the factory, with a means to individually close each opening.
9	Info	<b>Cabinets and Cutout Boxes</b>
9.1	Info	<b>General</b>
9.1.1		<i>Additions to existing requirements are <u>underlined</u> below.</i>  In Mexico and the United States, a cabinet or cutout box shall comply with the requirements for enclosures. <u>However, the requirements in Clause 9.2 shall supersede equivalent requirements for enclosures.</u> In Canada, this requirement does not apply.



## Standards Update Notice (SUN)

Issued: September 2, 2016

Clause	Verdict	Comment
9.2		<i>New section added;</i> <b>Sheet metal cabinets</b>
9.2.1		Notches
9.2.1.1		The front flange of each of the two side walls of a Type 1 enclosure intended for use with a panelboard may have one notch to accommodate means for installing the cover. Each notch shall not be more than 17.5 mm (11/16 inch) wide.
9.2.2		Slot and tab fastenings
9.2.2.1		Slot and tab fastenings, consisting of a small cutout on the inner flange surface and a tab created by pushing in a small segment of metal from the overlapping flange, are considered as an acceptable fastening only when used in Type 1 enclosures and are used in combination with a rivet, weld, bolt, or screw having machine screw threads in at least one of the following locations on each length of a flange:  a) At the back edge of the enclosure, provided that the distance between the fastenings (including the slot and tab fastenings) comply with Clause 6.4.2.5; or  b) Joining adjacent sides, including a top or bottom side, to comply with Clause 6.4.2.3, except that a rivet, weld, bolt or screw having machine screw threads shall be used to secure the front edge of the enclosure in accordance with Clauses 6.4.2.3 and 6.4.2.4.