

Standard Information

This SUN includes a reference to additional revision dates and additional requirements not previously announced.

Standard Number: UL 858

Standard Name: Standard for Safety for Household Electric Ranges

Standard Edition and Issue Date: Sixteenth Edition, Dated November 7, 2014

Date of Revision: June 18, 2015 and February 8, 2016 (see break down below)

Date of Previous Revision to Standard: 16th Edition Revised November 7, 2014

Effective Date of New/Revised Requirements

Effective Date (see Schedule below): April 4, 2019

Impact, Overview, Fees and Action Required

Impact Statement: A review of all Listing Reports is necessary to determine which products comply with new/revised requirements and which products will require re-evaluation. **NOTE:** Effective immediately, this revised standard will be exclusively used for evaluation of new products unless the Applicant requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revised requirements.

Revisions break down:

June 18, 2015 – Technical Update: Revised Paragraphs 37.4, 38.2.1, 71.2, 10.8, and 60A

June 24, 2015 – Administrative Update

November 18, 2015 – Administrative Update

February 8, 2016 – Technical Update: Revised Paragraphs 10.24.1, 10.24.3, 10.24.4, 10.24.5, 10.24.6 and 77A

April 6, 2016 – Administrative Update

The April 4, 2019 Effective Date applies to all technical updates referenced above.

Overview of Changes: These revisions for ANSI/UL 858 include Changes to Polymeric Materials Specification and Nichrome Wire Evaluation. Specific details of new/revised requirements are found in table below.

Additional information on the Nichrome Wire Evaluation Training will be forwarded late 2016

If the applicable requirements noted in the table are not described in your report(s), these requirements will need to be confirmed as met and added to your report(s) such as markings, instructions, test results, etc. (as required).

Schedule: So that shipping of products with Listing Marks will not be interrupted, an **approximate** schedule has been established to ensure Listing Reports are found compliant by Effective Date:

- August 3, 2018 = 8 Month Report Review – Intertek will review all Reports. Update if compliance is verified or issue Findings Letter/Quote for any re-evaluations needed
- October 4, 2018 = 6 Month Quote Cut-off – Quotes returned for necessary re-evaluations
- **April 4, 2019** = Effective Date – ATM Suspended for all non-compliant Reports

Fees: An initial review of Listing Report (s) will be covered by a direct billing project and will be invoiced at not more than \$1000 per report.

Standards Update Notice (SUN)

Issued: July 15, 2016

Client Action Required:

Information – To assist our Engineer with review of your Listing Reports, please submit technical information in response to the new/revised paragraphs noted in the attached or explain why these new/revised requirements do not apply to your product (s).

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
UL 858, revised June 18, 2015		
37.4, 38.2.1		<p>Modifies existing Requirements for Range Stability.</p> <p>Revised requirements to address anti-tip brackets which have been used for many years to prevent the ranges from tipping over when people apply their weight to the open range door are now being revised to address the behavioral issues associated with lack of installation of the anti-tip bracket by increasing the weight required to tip the range.</p> <p>All floor supported household electric ranges shall be evaluated for compliance with revised requirements for Range Stability.</p>
Sec. 71.2		<p>Addition of new performance requirements for Moisture Test, Washing Test on Electric Ranges/Cooktops</p> <p>New Requirements for the horizontal and vertical surfaces of a range or cooktop to be subjected to a Washing Test to simulate the action of washing with a saturated sponge, utilizing a detection circuit for electrical conductivity, and to examine the controls following the test.</p> <p>The horizontal and vertical control surfaces of all range and cooktops shall be evaluated for compliance with the new requirements.</p>
10.8		<p>Changes to Requirements on Internal Wiring for Electric Ranges.</p> <p>Wiring in Electric Ranges has shown that when ignition occurs, the insulation can ignite and propagate flames. As VW1 must pass a test where the wire is mounted vertically and must withstand five 15-second applications of a test flame, this test is more applicable to Electric Ranges and shall be required due to their high operating temperatures and high electrical currents.</p> <p>Therefore it shall be verified that all household electric ranges employing internal wiring composed of AWM evaluated to UL 758 possess a flame rating of VW1 or shall be evaluated.</p>

Standards Update Notice (SUN)

Issued: July 15, 2016

Clause	Verdict	Comment
60A		<p>Addition of a new performance requirement for Abnormal Operation of a Cooking Oil Ignition Test for a Cooktop employing a Coiled Surface Unit.</p> <p>This new requirement is intended to address the unattended cooking on cooktops of household electric ranges employing coiled surface units only.</p> <p>All household cooktops, employing Coil Surface Unit, which is a sheathed heating cooktop element that is intended to directly support and heat a cooking utensil, shall be evaluated for compliance with the Abnormal Operation of a Cooking Oil Ignition Test.</p>
UL 858, revised February 8, 2016		
10.24.1		<p>New clause added;</p> <p>All electrical connections where the total circuit load is greater than 60 W during normal operation shall:</p> <p>a) Comply with 10.24.3, 10.24.4, and 10.24.5, or</p> <p>b) Be evaluated as specified in Abnormal Operation – Nichrome Wire Test, Section 77A.</p>
10.24.3		<p>New clause added;</p> <p>With reference to 10.24.1, components such as wire, tubing, sleeving, or tape that are located within 3 mm of an electrical connection shall have a flammability classification as follows:</p> <p>a) VW-1 for wire evaluated in accordance with the Reference Standard for Electrical Wires, Cables, and Flexible Cords, UL 1581;</p> <p>b) VW-1 for tubing and sleeving evaluated in accordance with the Standard for Extruded Insulating Tubing, UL 224 or the Standard for Coated Electrical Sleeving, UL 1441; or</p> <p>c) Evaluated in accordance with the Standard for Polyvinyl Chloride, Polyethylene, and Rubber Insulating Tape, UL 510 for flame-retardant insulating tape.</p>

Standards Update Notice (SUN)

Issued: July 15, 2016

Clause	Verdict	Comment
10.24.4		<p>New clause added;</p> <p>With reference to 10.24.1, polymeric materials located within 3 mm of an electrical connection shall have a flammability classification as follows:</p> <p>a) A minimum V-0 or VTM-0, in accordance with the Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances, UL 94, or</p> <p>b) A minimum SC-0 or SCTC-0, in accordance with Standard for Tests for Flammability of Small Polymeric Component Materials, UL 1694, or</p> <p>c) A minimum glow wire ignition temperature (GWIT) of 775°C according to Fire Hazard Testing – Part 2-13: Glowing/Hot-wire Based Test Methods – Glow-wire Ignition Temperature (GWIT) Test Method for Materials, IEC 60695-2-13, or</p> <p>d) The material withstands glow-wire test (GWT) according to Fire Hazard Testing – Part 2-11: Glowing/Hot-wire Based Test Methods – Glow-wire Flammability Test Method for End-products (GWEPT), IEC 60695-2-11 with a minimum test severity of 750°C, and during the test flames persists for no longer than 2 seconds.</p>
10.24.5		<p>New clause added;</p> <p>With reference to 10.24.1, all polymeric materials located within the envelope of a vertical cylinder having a diameter of 20 mm and a height of 50 mm, placed above the center of the connection zone and on top of the polymeric parts that are supporting current-carrying electrical connections shall have a flammability classification as follows:</p> <p>a) minimum of V-0, VTM-0, or HF-1, in accordance with the Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances, UL 94, and Fire Hazard Testing – Part 11-10: Test Flames – 50 W Horizontal and Vertical Flame Test methods, IEC 60695-11-10, or</p> <p>b) A minimum of SC-0 or SCTC-0, in accordance with the Standard for Tests for Flammability of Small Polymeric Component Materials, UL 1694, or</p> <p>c) A minimum VW-1 for wire, tubing, sleeving and tape in accordance with 10.24.2 (a), (b), and (c).</p>
10.24.6		<p>New clause added;</p> <p>With reference to 10.24.5 and Figure 10.2, the flame cylinder shall be placed above the center of each connection zone and on top of any polymeric parts that are supporting current-carrying connections as shown in Examples 1-3 of Figure 10.2. In the case of uninsulated connections, the flame cylinder shall be placed above the center of each connection zone and directly on top of current-carrying conductors as shown in Examples 4-6 of Figure 10.2. The flame cylinder shall project through all metallic and polymeric material. If “C” is intended to act as a barrier to “D”, then the adequacy of the barrier shall be demonstrated by testing as described in Abnormal Operation – Nichrome Wire Test, Section 77A.</p>
77A	Info	Abnormal Operation – Nichrome Wire Test
		CUSTOMERS PLEASE NOTE: This Table and column “Verdict” can be used in determining how your current or future production is or will be in compliance with new/revised requirements.