

## Standard Information

**Standard Number:** UL 751

**Standard Name:** Vending Machines

**Standard Edition and Issue Date:** 9<sup>th</sup> Edition Dated July 18, 2016

**Date of Previous Revision to Standard:** 8<sup>th</sup> Edition Revised November 21, 2014

## Effective Date of New/Revised Requirements

Effective Date (see Schedule below): **June 30, 2017**

## 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requests in writing that current requirements be used along with their understanding that their listings will be withdrawn on Effective Date noted above, unless the product is found to comply with new/revised requirements.

**Overview of Changes** (Specific details of new/revised requirements are found in table below):

- Addition And Revision Of Requirements To Provide An Alternate Method of Evaluating Protective Electronic Circuits And Controls
- Addition Of Requirements To Address Vending Machines With Remote Operation Or Monitoring Functionality

**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:

- October 31, 2016 = 8 Month Report Review – Intertek will review all Reports. Update if compliance is verified or issue Findings Letter/Quote for any re-evaluations needed
- December 30, 2016 = 6 Month Quote Cut-off – Quotes returned for necessary re-evaluations
- **June 30, 2017** = 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.

### 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
24.3, 26, 76, and 79	Info	<b>Addition and revision of requirements to provide an alternate method of evaluating protective electronic circuits and controls.</b>
27		<i>New section added</i>  <b>Remotely Operated Vending Machines</b>
27.1		Any vending machine function enabled in response to external communication or data signals shall be considered when determining normal and abnormal conditions of the appliance.
27.2		Except as specified in 27.3, a manual control shall be provided on a vending machine such that actuation of the control is required before the vending machine can be operated in any mode that permits remote operation, external communication or receiving/sending data signals.
27.3		In reference to 27.2, a vending machine not provided with a manual control for actuating remote operation, external communication or receiving/sending data signals shall be:  a) Capable of remote operation, external communication or receiving/sending data signals only within line-of-sight; or  b) Limited only to monitoring external communication or data signals.
27.4		A vending machine shall include a means to manually disconnect, disable or override any remote operation commands, external communication or data signals. For cord-connected vending machines, if the vending machine attachment plug and receptacle serve as the manual means to disconnect data signals or remote operation commands, the vending machine shall be rated no more than the value specified in 26.4. In addition, the vending machine instructions shall comply with 80.3.3.
27.5		A control that operates in response to remote operation commands, external communication or data signals shall not introduce an operating condition or state that could lead to a risk of fire, electric shock or injury to persons. In addition, such a control shall not:  a) Render inoperative any protective control or protective control function within the vending machine; b) Alter the order of control response such as by forcing a protective control to operate instead of another control that would normally be intended to respond; c) Reset any protective manual reset feature; d) Supersede the response of any protective control; or e) Alter the response to or expected performance of:  1) User actuation of controls, movement of doors, covers, grills, filters or the like; or 2) User interaction with any parts of the vending machine that could result in exposure of hazardous electrical parts, moving parts, hot parts or radiation.

# Standards Update Notice (SUN)

Issued: August 18, 2016

Clause	Verdict	Comment
27.6		<p>Compliance with 27.5 shall be determined by one of the following:</p> <ul style="list-style-type: none"> <li>a) Using methods appropriate for determining the performance and reliability of protective control functions in accordance with Switches and Controllers, Section 26; or</li> <li>b) Examining the vending machine circuit diagram(s) to determine that a control which operates in response to remote operation commands, external communication or data signals operates wholly independent of the vending machine protective controls and therefore is incapable of adversely affecting the operation of any protective controls</li> </ul>
41		<p><i>New section added</i></p> <p><b>Information Technology Equipment</b></p>
41.1		Information technology equipment such as a printer, visual display unit, router, communication connectors/data ports or computer shall comply with the Standard for Information Technology Equipment, Part 1: General Requirements, UL 60950-1.
47	Info	<b>Grounding</b>
47.17		<p><i>New clause added;</i></p> <p>Functional grounding shall not be relied upon for equipment grounding or bonding.</p>
80.3	Info	<b>Installation instructions</b>
80.3.3		<p><i>New clause added;</i></p> <p>In reference to 27.4, the instructions for a vending machine intended to be remotely operated and in which the vending machine attachment plug and receptacle serve as the manual means for disconnecting remote operation commands, external communication or data signals shall specify that unplugging the vending machine disconnects the remote functions.</p>
		<b>CUSTOMERS PLEASE NOTE:</b> 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.