

STANDARD INFORMATION

If the project requires any changes to the Certification Data Report outside of Section 1, then this SUN applies.

Standard: UL 751

Standard ID: Vending Machines [UL 751:2016 Ed.9+R:18Dec2024]

Previous Standard ID: Vending Machines [UL 751:2016 Ed.9+R:02Oct2018]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **June 12, 2026**

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: No action is required for currently certified products. If modifications to the product after the effective date require an evaluation and/or testing, then the product must undergo re-evaluation to the new requirements.

This standard contains Functional Safety requirements.

This standard contains Photobiological requirements.

Overview of Changes:

- Addition of UV Requirements with Clarifications to Scope and Barrier Requirements
- Controls Requirements
- Cabinet and Enclosure Requirements
- Glass Requirements
- Compliance Methods
- Nonmetallic Fastener Requirements
- Compliance for Transformers and Low Voltage Circuits

Note: If the listing references a Canadian standard, per the Canadian Electrical Code (CSA C22.2#0) Section titled Language of markings, Caution and Warning Markings shall be in English and French.

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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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
		<p>Additions to existing requirements are <u>underlined</u> and deletions are shown lined-out below.</p>
1	Scope	<p>These requirements cover self-contained, payment-accepting, vending machines that vend non-refrigerated products to be employed in accordance with ANSI/NFPA 70. Vending machines covered by this standard are intended for indoor use only, except that they will be investigated for outdoor use or use in a protected location if so designated by the manufacturer. Vending machines may be battery operated and may be provided with a solar photovoltaic (PV) system. If a vending machine vends a non-refrigerated product but is provided with a refrigerated section, then the refrigerated section shall be evaluated to the relevant requirements in UL 541.</p> <p><u>These requirements cover self-contained, payment-accepting, vending machines. Vending machines covered by these requirements are intended for connection to alternating- or direct-current circuits rated 600 V or less in accordance with NFPA 70 and:</u></p> <p>a) <u>Are intended for indoor use only, except that they will be investigated for outdoor use or use in a protected location if so designated by the manufacturer;</u> b) <u>Are intended for vending only non-refrigerated or heated products except that they may vend:</u> 1) <u>Refrigerated products in addition to vending non-refrigerated or heated products; or</u> 2) <u>Products that are intended to be heated or warmed before being refrigerated and then dispensed (e.g., iced coffee).</u> c) <u>Are intended for installation within motor fuel dispensing facilities in accordance with Supplement SA, Requirements for Vending Machines Intended for Installation within Motor Fuel Dispensing Facilities, and as defined by NFPA 30A;</u> d) <u>May be provided with ultraviolet (UV) radiation lamp systems in which the UV wavelengths are 200 nm or greater; however, the effectiveness of the water treatment by the UV radiation is not covered by these requirements;</u> e) <u>May be battery operated;</u> f) <u>May be provided with a solar photovoltaic (PV) system; and</u> g) <u>Vend a tangible, consumable product (not a service, such as a product "rental" in which the product is intended to be returned).</u></p> <p><i>New clause added;</i></p>
1.1		
1.2A		<p>In reference to 1.1(b), if a vending machine is provided with a refrigerated section, the refrigerated section shall be evaluated to the relevant requirements in the Standard for Refrigerated Vending Machines, UL 541.</p>



CLAUSE	VERDICT	COMMENT
1.3		<p>These requirements do not cover:</p> <ul style="list-style-type: none">a) <u>Sound-recording and reproducing machines;</u>b) <u>Vending machines intended to vend only refrigerated products. Such products are covered by UL 541;</u>c) <u>Gaming or amusement machines. Such machines are covered by the Standard for Amusement and Gaming Machines, UL 22;</u>d) <u>Waste disposal and/or recycling machines in which the machine provides payment (cash, credit, etc.) in exchange for disposed and/or recycled product(s) that may be inserted into the machine;</u>e) <u>Display, inventory control or similar machines that do not have a payment accepting means but from which a product may be obtained;</u>f) <u>Machines that rent product(s) intended to be returned (e.g., airport luggage carts);</u>g) <u>Machines in which a service is being purchased (e.g., shoe polishing machines);</u>h) <u>Products that would otherwise be considered for household (non-commercial) use if no payment means were provided; or</u>i) <u>Automated freestanding stationary building structures</u>
	Info	CONSTRUCTION
6	Info	General
		<i>New clause added;</i>
6.0		<p>Throughout this Standard and unless otherwise specified, if live parts or uninsulated live parts are referenced, high voltage circuit requirements shall be applied if the circuit is:</p> <ul style="list-style-type: none">a) Relied upon to reduce the risk of fire, electric shock or injury;b) Not separated from high voltage circuits in accordance with Section 22, Separation of Circuits;c) Not supplied by an isolated Class 2 transformer; ord) In which the available power is not limited as specified in 43.2.
		<i>New clause added;</i>
6.4		<p>A component shall:</p> <ul style="list-style-type: none">a) Comply with the safety standard covering that component;b) Be used in accordance with its rating(s) established for the intended conditions of use;c) Be used within its established use limitations or conditions of acceptability;d) Comply with the applicable requirements of this end product standard; ande) Not be exposed to UV radiation.



CLAUSE	VERDICT	COMMENT
		<i>New clause added;</i>
6.5		<p>In reference to 6.4(d), a component not complying with a specific component requirement within this standard shall:</p> <ul style="list-style-type: none">a) Involve a feature or characteristic not required in the application of the component within the product;b) Comply with a different requirement within this standard that supersedes the component requirement; orc) Be part of and be separately investigated as part of another component.
		<i>New clause added;</i>
6.6		<p>A component that is also required to perform other necessary functions, such as overcurrent protection, ground-fault circuit interruption, surge suppression, any other similar functions, or any combination thereof, shall comply additionally with the requirements of the applicable standard(s) covering products that provide those functions.</p>
10	Info	Nonmetallic Material Application and Location
		<i>New clause added;</i>
10.3		<p>In reference to 10.2, nonmetallic fasteners required to comply with Section 75 shall include:</p> <ul style="list-style-type: none">a) Nonmetallic ultrasonic, solvent or heat welds;b) Nonmetallic screws and/or nuts; andc) Nonmetallic parts into which metal or nonmetallic screws will be threaded.
		<i>This section has been completely re-written</i>
11		Barriers
		See standard for details.
12	Info	Frame, Cabinet, and Enclosure
		<i>New clause added;</i>
12.7A		<p>Edges of glass exposed to contact during use and routine maintenance, including cleaning, shall:</p> <ul style="list-style-type: none">a) Be made smooth by fire polishing, heat-toughening or by being tempered; orb) Be permanently covered by smooth framing.



CLAUSE	VERDICT	COMMENT
12.10		<p>Other than as specified in 12.10A – 12.12, glass that is subject to contact during use and routine maintenance, <u>including cleaning</u> of the vending machine shall not have a thickness less than 0.115 in (2.92 mm), and shall comply with Impact Test, Section 70.1 or Mechanical Pressure Test, Section 70.2. <u>be located entirely at least 6 ft (1.8 m) above the floor or shall:</u></p> <p><u>a) Be not less than 0.1 in (2 mm) thick; and</u> <u>b) Be of a nonshattering or tempered type that complies with ANSI Z97.1.</u></p>
		<p><i>New clause added;</i></p> <p>Glass not complying with 12.10 shall comply with one of the following, (a) – (c). If the glass exposed minor dimension is:</p>
12.10A		<p>a) Sized 3 in (76 mm) or less, the glass shall comply with the Impact Test, 70.1 or the Mechanical Pressure Test, 70.2; b) Greater than 3 in (76 mm) but no more than 12 in (305 mm), the glass shall comply with the Mechanical Pressure Test, 70.2; or c) Greater than 12 in (305 mm), the glass shall comply with the Impact Test, 70.1.</p>
		<p><i>New clause added;</i></p>
12.12		<p>If a component provided with glass, other than a lamp, is used inside a vending machine such that the glass is exposed to contact during use or routine maintenance, including cleaning, the glass shall comply with the Glass Component Impact Test, Section 71.</p>
13	Info	<p>Mechanical Assembly</p> <p>A switch, a fuseholder, a lampholder, an attachment-plug receptacle, a motor-attachment plug, or similar components subject to manual operation or manipulation shall:</p> <p>a) Be secured in position and prevented from rotating in accordance with 13.4 and 13.5; b) Be a lampholder of a type in which the lamp cannot be replaced, such as a neon pilot or indicator light in which the lamp is sealed in a nonremovable jewel, and in which any rotation cannot reduce spacings below the minimum acceptable values; or c) Be a switch that is of the plunger, slide or other type that does not tend to rotate when operated.</p> <p>In addition, the switch shall comply with all the following conditions:</p> <ol style="list-style-type: none">1) Have a mounting means that makes it unlikely that operating the switch will cause it to loosen;2) Any rotation of the switch shall not reduce spacings below the minimum values specified in Spacings, Section 46; and3) Operation of the switch shall be by a mechanical means rather than direct contact by persons.
13.3		



CLAUSE	VERDICT	COMMENT
		<i>New clause added;</i>
13.3A		In reference to 13.3(c), a toggle switch shall not be used since it is subject to forces that tend to rotate the switch during the operation of the switch.
14	Info	Accessibility of Live Parts
		<i>New clause added;</i>
		In reference to 14.1, if an uninsulated live part is accessible, it shall:
14.1A		a) Be part of a low-voltage circuit which is not relied upon to reduce the risk of injury, fire or electric shock; or b) Be part of a circuit in which the available current measured through a 1500 Ω noninductive resistor does not exceed 5 mA.
14.1B		The requirement in 14.1 will necessitate the use of an enclosure, cover, or insulating barrier over an uninsulated live part that a route person may inadvertently touch while servicing or adjusting the vending machine. A cover or barrier that must be removed to perform a servicing function shall not be considered as providing the required protection.
		<i>New clause added;</i>
14.5		In reference to 14.1 any part of the vending machine cabinet or enclosure that can be removed without the use of tools or keys shall be removed.
		<i>New clause added;</i>
14.8		Except as specified in 14.9, a lampholder, a fuseholder, or a circuit breaker shall be installed or protected so that uninsulated high-voltage live parts located within 4 in (102 mm) from the insulating body of a fuse, are not exposed to contact by persons servicing the lamp, fuse, or circuit breaker. An insulating barrier employed as a guard for uninsulated highvoltage live parts shall comply with 11.0 – 11.1.
		<i>New clause added;</i>
		In reference to 14.8, if uninsulated high-voltage live parts are located within 4 in (102 mm) from the insulating body of a fuse:
14.9		a) The vending machine shall be marked as specified in 81.2; or b) The uninsulated high-voltage live parts shall only be: 1) The screw shell of a lampholder or plug fuseholder; 2) Cartridge fuse clips; or 3) Wiring terminals to the fuseholder.
		<i>This clause has been completely re-written</i>
15		Protection Against Corrosion
		See standard for details.



CLAUSE	VERDICT	COMMENT
17	Info	Supply Connections for Permanently Connected Vending Machines
17.3	Info	Field-wiring terminals and leads
17.3.1	Info	General
		<p>Space shall be provided in the field-wiring compartment or outlet box for installation of conductors of the number and size required by 17.3.1.1 using Type TW or THW wire when at least a 6 inch (150 mm) length of each conductor is brought into the wiring compartment.</p> <p>Exception: Conductors other than Type TW or THW may be used if specified in the installation instructions.</p>
17.3.1.4		<p><u>Space shall be provided in the field-wiring compartment or outlet box for installation of the field-wiring supply-circuit conductors of the number and size required by 17.3.1.1. If a trial installation is necessary to determine whether the space size is adequate:</u></p> <p><u>a) At least a 6 in (150 mm) length of each conductor shall be brought into the wiring compartment; and</u></p> <p><u>b) Each conductor shall be Type TW or THW or be as specified in the installation instructions.</u></p>
17.3.2	Info	Terminals
		<p>terminal plate tapped for a wire-binding screw shall be of metal not less than 0.050 inch (1.27 mm) thick. There shall be at least two full threads in the metal of the plate.</p> <p>Exception: A plate not less than 0.030 inch (0.76 mm) thick is acceptable for 14 AWG (2.1 mm²) conductors.</p>
17.3.2.6		<p><u>A terminal plate tapped for a wire-binding screw shall be of metal behaving at least two full threads or the screw connection. The terminal plate shall be not less than:</u></p> <p><u>a) 0.03 in (0.76 mm) thick for 14 AWG (2.5 mm²) conductors; or</u></p> <p><u>b) 0.05 in (1.27 mm) thick for conductors larger than 14 AWG (2.5 mm²).</u></p>
20	Info	Internal Wiring
20.1	Info	General
		<i>New clause added;</i>
20.1.1A		<p>Unless otherwise specified, the requirements in this section shall be applied to wiring in a refrigerated section.</p>
20.1.6		<p>Wiring with conductor insulation that does not comply with 20.1.3 shall <u>have insulation that is not less than 1/64 inch (0.4 mm) thick and be located inside an enclosure within the vending machine cabinet so that it is not likely to be contacted by a route person. Such wiring shall not be located in a refrigerated compartment.</u></p>



CLAUSE	VERDICT	COMMENT
		<i>New clause added;</i>
20.1.9		Wiring shall not be exposed to direct or reflected UV radiation from a source of UV located within the vending machine.
24	Info	Motors
24.2	Info	Overload protection
		<i>New clause added;</i>
24.2.5		The motor overload protection referenced in 24.2.2 shall provide locked-rotor protection. However, protection against running heating is not required if the motor: a) Moves air only by means of an air-moving fan that is integrally attached, keyed, or otherwise fixed to the motor; or b) Is a single-coil, shaded-pole motor in which the motor locked-rotor current does not exceed 200 % of the motor no-load current.
24.3	Info	Protective electronic circuits
		<i>New clause added;</i>
24.3.4		In reference to 24.3.3, a remote software update shall occur while the vending machine is energized but only if the various loads (fans, lights etc.) are de-energized. Software enforcing deenergizing of the loads shall have at least a Class A control function, or equivalent.
25	Info	Overcurrent Protection
25.1	Info	General
		<i>New clause added;</i>
25.1.11A		In reference to 25.1.11, a circuit breaker accessible from outside of the vending machine shall be located so that only the operating handle of the circuit breaker projects outside the cabinet or enclosure.
26	Info	Switches and Controllers
		<i>New clause added;</i>
26.10A		With reference to 26.8, if a protective control: a) Has a protective electronic circuit, the relevant items in 24.3.2 (a) – (n) shall be applied; and b) Uses software as a required part of the protective electronic circuit, the software shall comply with 24.3.3 (b) or (c).



CLAUSE	VERDICT	COMMENT
26.19		<p>An electronic operating control not complying with 26.15 <u>shall comply with 26.20(a). In addition, electronic or other types of operating controls not complying with 26.15 shall:</u></p> <p>a) Be powered entirely by no more than one low-voltage circuit; b) Comply with the Limiting Impedance Test in UL 508; or c) Comply with the low-power circuit requirement determined as specified in 19.11.1, of UL 60335-1.</p>
		<p><i>New section added;</i></p> <p>Transformers and Low Voltage Circuits</p>
43		<p>A transformer (including an autotransformer), shall comply with:</p> <p>See standard for details.</p>
		<p><i>New section added;</i></p> <p>Ultraviolet (UV) Radiation Systems</p>
44A		<p>Emissions of UV radiation from a vending machine with ultraviolet radiation lamps shall not exceed the 8 hour level of effective irradiance of 0.1 $\mu\text{W}/\text{cm}^2$ if measured at a distance of 0 inches (0 mm) away from the vending machine. This includes any UV emissions that may be measured from water inlet or outlet connections or from a door, cover or barrier as specified in 44A.3.</p> <p>See standard for details.</p>
46	Info	Spacings
46.1	Info	High-voltage circuits
		<p><i>New clause added;</i></p>
46.1.9		<p>If higher than rated voltage is developed in a motor circuit through the use of capacitors and if the steady-state voltage as determined during the Temperature Test, Section 58:</p> <p>a) Exceeds 500 V, the developed capacitor voltage shall be used as the basis for determining the spacings for the affected parts; or b) Does not exceed 500 V, the rated voltage of the system shall be used as the basis for determining the spacings for the affected parts.</p>



CLAUSE	VERDICT	COMMENT
49	Info	Coin and Credit Mechanisms
49.1		<p>A coin or credit mechanism shall be <u>acceptable rated</u> for the temperatures involved and for controlling the connected load or loads <u>as determined during the Temperature Test, Section 58</u>. The mechanism shall: be installed in the vending machine at the factory.</p> <p>a) <u>Be installed in the vending machine at the factory; or</u> b) <u>Be intended for installation in the field, if the mechanism and vending machine comply with 49.2 – 49.5, 80.2.8, 81.4 and 81.5.</u></p>
	Info	PROTECTION AGAINST INJURY TO PERSONS
50	Info	General
50.1	Info	General
		<i>New clause added;</i>
50.1.6		<p>If a user or a route or service person can be exposed to UV radiation by opening a door or removing a cover or barrier, the door, cover or barrier shall be provided with an interlock or shall require the use of a key or tools to open or remove.</p>
53	Info	Pressure Vessels and Parts Subject to Pressure
53.7		<p>If a test is necessary to determine whether a part complies with the requirement in 53.4, two samples of <u>each pressure containing part</u> are to be subjected to a hydrostatic-pressure test. Each sample is to be filled with <u>any nonhazardous liquid, such as water</u> so as to exclude air and is to be connected to a hydraulic pump system. The pressure is to be raised gradually to the specified test value and is to be held at that value for 1 minute <u>during which time, the sample shall not burst or leak except that if leakage occurs, it shall comply with 53.8. Leakage is to be determined visually; for example, by examination of the sample for release of the test medium or by evidence of decreasing gauge pressure.</u></p>
		<i>New clause added;</i>
53.8		<p>In reference to 53.7, any leakage that occurs shall comply with the following:</p> <p>a) Leakage shall occur only at gaskets or seals and at a pressure exceeding 40 % of the specified hydrostatic test pressure; and b) If leakage occurs at gaskets or seals, the part being tested shall be capable of withstanding the specified hydrostatic test pressure.</p>



CLAUSE	VERDICT	COMMENT
57	Info	Input Test The maximum current input of a vending machine operated under one of the following conditions shall not be greater than 110 percent % of the rated value. when the vending machine is operated under the condition of maximum normal load as described in Temperature Test, Section 58 when connected to a supply circuit of maximum rated voltage and rated frequency.
57.1		<u>a) Battery operated vending machines – Prior to starting the test, the battery shall be fully discharged in accordance with the battery manufacturer’s instructions. With the vending machine in the charging mode during the Temperature Test, Section 58, the input shall be measured within 5 – 6 minutes of operation: or</u> <u>b) Other than battery operated vending machines – The vending machine shall be connected to a supply circuit of rated frequency and maximum rated voltage then operated under maximum normal load as described in the Temperature Test, Section 58.</u>
58	Info	Temperature Test
58.1	Info	General
		<i>New clause added;</i>
58.1.7		In reference to 46.1.9, a means shall be provided to measure the steady state voltage developed through the use of capacitor(s) in an ac motor circuit.
59	Info	Dielectric Voltage-Withstand Test
		A vending machine shall withstand, without breakdown, a test potential applied for 1 minute between line-voltage live parts and dead metal parts and between live parts of high and low voltage circuits as follows:
59.1		a) For ac circuits– Any frequency between 40 – 70 Hz and using a test potential of: 1) 1000 V for venders rated not more than 1/2 horsepower (373 W output), unless 59.1A applies; or 2) 1000 V plus twice rated voltage for venders rated more than 1/2 horsepower (373 W output), unless 59.1A applies. b) For dc circuits – A test potential of: 1) 1400 V for venders rated not more than 1/2 horsepower (373 W output); or 2) 1400 V plus 2.8 times rated voltage for venders rated more than 1/2 horsepower (373 W output).
		<i>New clause added;</i>
59.1A		In reference to 59.1(a), if the voltage for any motor circuit in which the steady-state voltage developed through the use of capacitors exceeds 500 V, as determined during the Temperature Test, Section 58, then the motor circuit shall be subjected to a test voltage of 1000 V plus twice the developed capacitor voltage. If the remaining circuits within the vender are disconnected during this test, the relevant test voltage specified in 59.1 shall be applied to the remaining circuits.



CLAUSE	VERDICT	COMMENT
		<i>New clause added;</i>
59.5		<p>For the tests in 59.1, 59.1A, and 59.2, the dielectric potential shall be increased gradually from zero until the required test value is reached and shall be held at that value for 1 minute. In addition, the dielectric potential shall be applied:</p> <p>a) By a 500 VA or larger transformer with a regulated, essentially sinusoidal, variable output voltage; or</p> <p>b) By test equipment equivalent to (a) that maintains the specified high potential voltage at the product throughout the duration of the test.</p>
		<i>New section added;</i>
		Current Limiting Tests
66B		<p>The following test shall be conducted if a fuse or nonadjustable manual reset circuit protector is used in the high voltage primary circuit to limit the available secondary current as specified in 43.4(b).</p> <p>See standard for details.</p>
		<i>This section has been completely re-written</i>
69	Info	Push-Back Strain-Relief Test See standard for details.
70	Info	Glass Strength Test
70.2	Info	Mechanical pressure test
70.2.2		<p>The sample shall withstand a gradually applied force of 50 lbf (223 N) for one minute. The force shall be evenly distributed and applied through a 3-in (76-mm) diameter resilient disc located in the center of the glass area. <u>The force shall be one of the following:</u></p> <p>a) <u>35 lbf (156 N) if the entire section of glass is located at a distance greater than 3.5 ft (1.1 m) and less than 6 ft (1.8 m) above floor level and is in a plane that is 45° or less with respect to the vertical plane; or</u></p> <p>b) <u>50 lbf (223 N) if the glass is located less than 6 ft (1.8 m) above the floor level and other than as specified in (a).</u></p>



CLAUSE	VERDICT	COMMENT
71	Info	Glass Component Impact Test
		<i>New clause added;</i>
71.0		This test applies to a component provided with glass as specified in 12.12.
		Three samples specified in (a) or (b) shall be subjected to the test in 71.2. As a result of the test, the sample shall withstand the impact without breaking. <u>Samples of the glass to be tested shall be:</u>
71.1		<u>a) Glass taken from or located on the component; or</u> <u>b) Of the same type and considered representative of the glass used as part of the component.</u>
		<i>New section added;</i>
		Ultraviolet Irradiance Test
76A		This test applies to any vending machine having a UV radiation system. At the conclusion of the test, the emissions of UV radiation shall not exceed an 8 hour level of effective irradiance of 0.1 $\mu\text{W}/\text{cm}^2$ in accordance with 44A.1. See standard for details.
	Info	MANUFACTURING AND PRODUCTION TESTS
77	Info	Dielectric Voltage-Withstand Test
		<i>New clause added;</i>
77.5		Except as specified in 77.5A, the test shall be conducted on a complete and fully assembled vending machine that has not been unwired, modified, or disassembled for the test.



CLAUSE	VERDICT	COMMENT
		<i>New clause added;</i>
		In reference to 77.5:
77.5A		<p>a) Parts such as snap covers or friction-fit knobs shall remain in place unless these parts interfere with the performance of the test;</p> <p>b) If the test is performed prior to final assembly of the vending machine, the test shall represent a completely assembled vending machine. Any component not included as part of the test shall not affect the results with respect to determination of possible risk of electric shock resulting from miswiring, defective component, insufficient spacings, and the like;</p> <p>c) If the test is performed prior to attaching the supply cord on a cord connected vending machine, the cord assembly shall be visually examined after installation on the vending machine to confirm:</p> <ol style="list-style-type: none">1) The GFCI, plug and cord are not damaged (including at the point where the cord is connected to the vending machine);2) The supply cord conductors are connected to the vending machine internal wiring in the correct manner; and3) The supply cord and internal wiring connections are tight.
		<i>New clause added;</i>
77.11		For the test, and except as specified in 77.12, switch(es) controlling loads within the vending machine shall be in the closed (“on”) position. All lines of the high voltage circuit shall be connected together to one terminal of the dielectric test equipment, and with the second equipment terminal connected to accessible dead metal.
		<i>New clause added;</i>
		A vending machine not tested as specified in 77.11 shall have resistive circuitry, high-impedance windings, or the like, and not subject to excessive secondary-voltage buildup in case of electrical breakdown during the test. The vending machine shall be tested:
77.12		<p>a) With one line of the high voltage circuit connected to one terminal of the dielectric test equipment and with the second test equipment terminal connected to accessible dead metal of the vending machine if no switch(es) are provided – or if switch(es) are provided, with the switch(es) in the closed (“on”) position; or</p> <p>b) With all lines of the high voltage circuit connected to the dielectric test equipment and with the second test equipment terminal connected to accessible dead metal of the vending machine and switch(es) in the closed (“on”) or open (“off”) position.</p>



CLAUSE	VERDICT	COMMENT
		<i>New section added;</i>
79A		Protective Quality Control Management Program and Functional Testing See standard for details.
	Info	MARKING
80	Info	General
80.2	Info	Identification
		<i>New clause added;</i>
80.2.4A		In reference to 80.2.4(a), if the minimum supply circuit conductor ampacity and maximum overcurrent-protective device rating are not marked, these values as determined in 80.2.10 and 80.2.11, respectively, shall not exceed 15 A.
		<i>New clause added;</i>
80.2.4B		In reference to 80.2.4(b), the rating of the largest vending machine load shall be marked unless the load: a) Is a single motor with the motor nameplate readily visible after the motor is installed on the vending machine; and b) Is the only electric-energy-consuming component of the vending machine.
		<i>New clause added;</i>
80.2.4C		In reference to 80.2.4(b), any unmarked load shall not be the largest vending machine load (see 80.2.4B) and the unmarked load shall be rated no more than: a) 1/8 horsepower (93 W output) for a motor load; or b) 1 A for a non-motor load.
		<i>New clause added;</i>
80.2.9		With reference to 43.5, the vending machine shall be provided with a legible and permanent or non-permanent marking located next to the fuseholder. The marking shall specify: a) The fuse maximum current rating; and b) The fuse manufacturer's or private labeler's name and catalog designation and the fuse voltage rating, if a supplementary type fuse is used.
		<i>New clause added;</i>
80.2.19		The marking referenced in 36.2.5(b) for nonshort-circuit type lampholders shall state that the vending machine is for use with instant-start lamps. The letters in the marking shall be not less than 1/8 in (3.2 mm) high.



CLAUSE	VERDICT	COMMENT
		<i>New clause added;</i>
80.2.20		A vending machine provided with a UV radiation system shall be marked with the maximum lamp rating in watts and voltage.
80.3	Info	Installation instructions
		<i>New clause added;</i>
		The instructions for a vending machine intended to employ a UV radiation lamp system shall:
80.3.5		a) Repeat the required marking of 81.10; b) Provide lamp replacement information including the wattage, voltage, lamp type and the designation number; c) Specify the need to take precautions to ensure that the concentration of ozone due to the UV radiation system is limited to a safe value; and d) Provide the procedures for properly handling and disposing UV lamps.
		<i>New clause added;</i>
		In reference to 44A.3, a vending machine with an accessible door, cover or barrier that reduces or prevents emissions from a UV source and is accessible to a user or to a route or service person, shall be provided with a marking located on or adjacent to the door, cover or barrier. The marking shall be visible to a person opening the door or removing the cover or barrier and shall state the following or equivalent:
80.10		“WARNING: UV LIGHT SOURCE Risk of Ultraviolet Radiation Exposure” together with one of the following or equivalent: a) For doors, covers or barriers provided with an interlock: “Ensure this [door, cover or barrier] has engaged the interlock. to reduce the risk of ultraviolet radiation exposure”; or b) For doors, covers or barriers not provided with an interlock and requiring a key or tool to open or remove: “Disconnect power before opening door or removing cover or barrier”.