

## STANDARD INFORMATION

**Standard:** UL 979

**Standard ID:** Water Treatment Appliances [UL 979:2016 Ed.2+R:19Oct2023]

**Previous Standard ID:** Water Treatment Appliances [UL 979:2016 Ed.2+R:23Nov2021]

## EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

**Effective Date:** **October 19, 2025**

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 Reports not updated to this version by the effective date above will be withdrawn.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

- Addition of UL 508A for Industrial Control Panel Enclosures used in industrial applications
- Additional requirements for Water Treatment Systems that Generate Ultraviolet Radiation

Specific details of new/revise 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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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
		<i>Additions to existing requirements are <u>underlined</u> and deletions are shown <del>lined-out</del> below.</i>
8	Info	<b>Frame and Enclosure</b>  A polymeric enclosure shall comply with the Standard for Polymeric Materials – Use in Electrical Equipment Evaluations, UL 746C. When determining compliance with UL 746C, the polymeric (including epoxy potting compounds) enclosure shall comply with the following:  f) UV Resistance – To determine if a non-metallic material is capable of withstanding UV radiation, the material shall be subjected to one of the following tests:  8.8  a) For materials exposed to UV-A or UV-B radiation (e.g., outdoor use), the materials shall be subjected to the UL 746C, Ultraviolet Light Exposure Test; or b) For materials exposed to UV-C radiation, the materials shall be subjected to the tests of IEC 60335-1, Annex T.  This testing is not required if the material recognition included UL 746C UV Exposure testing for materials exposed to UV-A or UV-B radiation, or IEC 60335-1 Annex T exposure testing for materials exposed to UV-C radiation.
8.9A		<b><i>New clause added;</i></b>  Industrial control panel enclosures shall comply with the requirements for enclosed panels in the Standard for Industrial Control Panels, UL 508A.
36A		<b><i>New section added;</i></b>  <b>Protection from Overexposure to Ultraviolet (UV) Radiation</b>
36A.1		Appliances shall be investigated for emission of ultraviolet radiation in accordance with the ultraviolet irradiance test in Clause 64A. Appliances that use UV lamps systems that produce less than 0.1 $\mu\text{W}/\text{cm}^2$ are not considered to present a photobiological hazard risk and, therefore not required to comply with Clauses 36A.2 – 36A.3.  Note: UV lamps that produce less than 0.1 $\mu\text{W}/\text{cm}^2$ are considered Risk Group 0 (RG0).



CLAUSE	VERDICT	COMMENT
36A.2		Interlocks and interlock systems used to minimize risk of overexposure to ultraviolet (UV) radiation shall be reliable, see 36A.3. The actuator of an interlock shall be located so the unintentional operation is unlikely and is not able to be defeated with the articulated probe of Figure 9.1. The interlock shall be reliable and not easily defeated by improper disassembly or reassembly of the equipment.
26A.3		An interlock and interlock system that is required to reduce a risk of overexposure to ultraviolet (UV) radiation shall withstand 100,000 cycles of operation controlling a load not less than that controlled in the product and shall function normally upon completion of the test.  Exception: For interlock which is only intended to limit UV exposure for cleaning and maintenance of insect lamp traps, the requirements are the same as above except for 10,000 cycles of operation.
36A.4		UV lamp systems that emit ultraviolet radiation at wavelengths less than 250 nm shall comply with the ozone requirements specified in Section 48.
36A.5		The appliance shall be provided with a visual indication to the user when the UV lamp system is activated.
56	Info	<b>Ultraviolet Irradiance Test</b>  <i>New clause added;</i>
56.1A		Appliances that use UV lamps systems that are exclusively identified for the use of lamps rated Risk Group 0 (RG0, exempt) by the Standard for Photobiological Safety for Lamps and Lamp Systems-General Requirements, IESNA RP-27.1, or the Standard for Photobiological safety of lamps and lamp system, IEC 62471, are considered to comply with this requirement without test.  <i>New clause added;</i>
56.2		Testing shall be performed in the conditions most likely to result in the highest emission levels, including removal or adjustment of guards or operating settings. The test shall be performed using a new lamp (or other integral radiation source) representative of the maximum emission capability (including user replacement parts). The measurement device shall be placed as close as possible to the radiation source to represent the user's body.  <i>New clause added;</i>
56.3		For products that employ enclosures, guards and similar protective features to minimize the risk of overexposure to ultraviolet radiation, these parts shall be resistant to degradation from mechanical abuse. After subjecting the protective features to the relevant mold stress relief and impact tests the protective features shall be visually examined. If visual examination indicates that the protection afforded by the protective feature may have been impaired, irradiance measurements shall be repeated. In this case, a different sample shall be used for each mechanical abuse/irradiance test sequence unless agreeable to all parties.



CLAUSE	VERDICT	COMMENT
		<b><i>New clause added;</i></b>
56.4		For equipment that may emit different levels of ultraviolet radiation under use and service conditions, both conditions shall be considered in the irradiance measurements.
		<b><i>New clause added;</i></b>
56.5		Instrumentation used for the radiation measurements shall be suitable for the measuring emissions of the radiation source and frequencies. Care should be taken to ensure proper selection of instrumentation.
	Info	<b>MARKING</b>
68	Info	<b>Details</b>
		<b><i>New clause added;</i></b>
68.10		Markings shall indicate to the user the proper method of UV lamp replacement. For user replaceable lamps, the permitted replacement lamps by manufacturer and part number shall be specified. The maximum wattage of the lamp shall also be indicated. Products having lamps intended for replacement only by qualified service personnel shall be clearly marked to indicate this. The marking shall be located where readily visible during any approach to the lamp compartment.
		<b><i>New clause added;</i></b>
68.11A		The appliance shall be marked with the following or equivalent in a readily visible location during any approach to the lamp area:  “WARNING: This equipment produces potentially hazardous UV energy. Refer to the operating manual for important safety and operating instructions.”
		<b><i>New clause added;</i></b>
68.11B		For products where it may be necessary for qualified service personnel to access the product while radiation is generated, or to defeat guards, interlocks, or other protective features, markings shall be provided to alert the service personnel to the risk of overexposure. Any necessary precautions shall be described in the product’s instruction or maintenance manual, including the wearing of appropriate Personal Protective Equipment (PPE) during servicing operations.
	Info	<b>INSTALLATION INSTRUCTIONS</b>
69	Info	<b>Details</b>
		<b><i>New clause added;</i></b>
69.3A		Markings specified in 68.10 – 68.11B shall also be included in the list of Important Safety Instructions.



CLAUSE	VERDICT	COMMENT
69.3B		<p><b><i>New clause added;</i></b></p> <p>The following statements shall be included in the list of Important Safety Instructions:</p> <ul style="list-style-type: none"><li>a) This appliance uses an ultraviolet (UV) source and must be used in compliance with its markings and instructions to prevent the user's eye and bare skin from exposure to harmful UV radiation.</li><li>b) This appliance is provided with a door interlock/lock that disengages the UV source when the door is opened. This safeguard reduces the risk of personal injury from UV overexposure.</li><li>c) When replacing lamps:<ul style="list-style-type: none"><li>1) Unplug this device from the electrical outlet, and</li><li>2) replace only with the lamps for which the equipment is marked and intended.</li></ul></li></ul> <p>Note: This instruction is only applicable to equipment with user-replaceable lamps.</p>