STANDARDS UPDATE NOTICE (SUN)
ISSUED: September 19, 2023

STANDARD INFORMATION

Standard: UL 1778
Standard ID:
Uninterruptible Power Systems [UL 1778:2014 Ed.5+R:28Apr2023]
Uninterruptible Power Systems [CSA C22.2#107.3:2104 Ed.3+U1;U2]
Previous Standard ID:
Uninterruptible Power Systems [UL 1778:2014 Ed.5+R:12Oct2017]
Uninterruptible Power Systems [CSA C22.2#107.3:2014 Ed.3+U1]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: **April 28, 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 Reports not updated to this version by the effective date above will be withdrawn.

Reports listed to UL 1778:1994 Ed.2+R:15Mar1996 are exempt from this update.

Overview of Changes: Add UL 1973 for battery requirements. Specific details of new/revised 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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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
		Additions to existing requirements are <u>underlined</u> and deletions are shown ~~lined out~~ below.
4	Info	**Physical requirements**
4.3	Info	**Design and construction**
4.3.8	Info	**Batteries**
4.3.8.101	Info	**Battery requirements**
4.3.8.101.0		***New clause added;*** **General** Batteries shall comply with the following: a) UL 1973, the Standard for Batteries for Use in Stationary and Motive Auxiliary Power Applications; or b) UL 1989, the Standard for Standby Batteries, for lead acid batteries for UPS less than 70 kWhs.
5	Info	**Electrical requirements and simulated abnormal conditions**
5.3	Info	**Abnormal operating and fault conditions**
5.3.102		**Overcharge test** A battery supply that is to be evaluated with the UPS shall be subjected to 7 h of overcharging, connected to a supply circuit adjusted to 106% of nominal voltage, using a fully charged battery. Any OPERATOR-adjustable controls associated with the charger or charging circuit shall be adjusted for the most severe charging rate. This requirement does not apply to a UPS provided with a regulating circuit preventing an increase in battery charging current and voltage when the a.c. input voltage is increased from rated value to 106% of rated value. <u>This test can be waived for batteries that comply with the requirements for valve regulated and vented lead-acid and nickel-cadmium batteries in Annex H of UL 1973, the Standard for Batteries for Use in Stationary and Motive Auxiliary Power Applications.</u>

CLAUSE	VERDICT	COMMENT
Annex HHH	Info	**Ventilation of battery compartments**
HHH.7A		***New clause added;*** The gas generation determination conducted as part of the Overcharge Thermal Runaway Test of UL 1973, the Standard for Batteries for Use in Stationary and Motive Auxiliary Power Application, can be utilized to determine suitable ventilation for vented batteries instead of running the test of HHH.7.
HHH.8		In the United States the following applies: If the battery is located in a HAZARDOUS VOLTAGE, PRIMARY, or ELV CIRCUIT, the battery shall conform to the ~~Standard for Standby Batteries, UL 1989~~ Batteries for Use in Stationary and Motive Auxiliary Power Application, UL 1973.