

STANDARD INFORMATION

If your product is certified to IAS 1-91 then it needs to be recertified to ANSI Z21.10.1, ANSI Z21.10.3, UL 174, or UL 1453 as applicable.

Withdrawn Standard:

IAS U.S. Requirements for Indirect Water Heaters for Use with External Heat Source [IAS 1-91:1992]

Potential Replacement Standards:

Gas Water Heaters, Volume 1, Storage Water Heaters with Input Ratings of 75,000 Btu per Hour or Less [**ANSI Z21.10.1**]

Gas-Fired Water Heaters, Volume III, Storage Water Heaters with Input Ratings Above 75,000 BTU per Hour, Circulating and Instantaneous [**ANSI Z21.10.3**]

Household Electric Storage Tank Water Heaters [**UL 174**]

Electric Booster and Commercial Storage Tank Water Heaters [**UL 1453**]

EFFECTIVE DATE OF NEW/REVISED REQUIREMENTS

Effective Date: November 1, 2024

IMPACT, OVERVIEW, AND ACTION REQUIRED

Impact Statement: IAS 1-91 is being withdrawn and replaced by ANSI Z21.10.1, ANSI Z21.10.3, UL 174, or UL 1453 as applicable. All reports currently certified to IAS 1-91 need to be evaluated and certified the applicable standard(s) prior to the effective date. Due to the changes between standards, a full evaluation to the new standard(s) is required.

Below are the scopes of the replacement standards to help determine the applicable standards.

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 – Please immediately identify any current Listing Reports or products that are no longer active and should be removed from our records.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	COMMENT
The following clauses contain the scope of ANSI Z21.10.1:	
1	Scope
	This Standard applies to newly produced, automatic storage water heaters having input ratings of 75,000 Btu/hr (21 980 W) or less (see Clause 3, Definitions), hereinafter referred to as water heaters or appliances, constructed entirely of new, unused parts and materials:
	a) for use with natural gas; b) for use with manufactured gas; c) for use with mixed gas; d) for use with liquefied petroleum gases; e) for use with LP gas-air mixtures;
1.1	f) for recreational vehicle installation for use with liquefied petroleum gases only (see Clause 4.1.26); g) for manufactured home (mobile home) installation convertible for use with natural gas and liquefied petroleum gases when provision is made for the simple conversion from one gas to the other (see Clause 4.1.25); h) for recreational vehicle installation convertible for use with natural gas and liquefied petroleum gases when provision is made for the simple conversion from one gas to the other (see Clause 4.1.26); and i) for use with combination potable water/space heating applications (see Clause 4.1.29 and Clause 3, Definitions).
1.2	This Standard also applies to water heaters incorporating heat pipe heat exchangers (see Clause 4.4, Heat pipe heat exchangers).
1.3	Direct vent water heaters anticipated by this Standard are essentially balanced flue appliances with the air intake and vent outlet in close proximity. Other designs are to be subjected to such additional tests as believed necessary at the discretion of the testing agency.
1.4	Water heaters for installation in recreational vehicles are to be of the direct vent type.
1.5	This Standard also applies to water heaters with draft hoods which are factory-equipped with automatic vent damper devices (see Clause 3, Definitions), hereinafter referred to as vent damper devices.
1.6	This Standard also applies to water heaters of other than the direct vent type which are factory- equipped with electrically operated or mechanically actuated automatic flue damper devices (see Clause 3, Definitions), hereinafter referred to as flue damper devices.



CLAUSE	COMMENT
The following clauses contain the scope of ANSI Z21.10.3:	
1	Scope
	<p>This Standard applies to newly produced, large automatic storage water heaters having input ratings above 75,000 Btu/hr (21 980 W), instantaneous water heaters, circulating water heaters including booster water heaters (see Clause 3, Definitions), hereinafter referred to as water heaters or appliances, constructed entirely of new, unused parts and materials:</p> <ul style="list-style-type: none">a) for use with natural gas;b) for use with manufactured gas;c) for use with mixed gas;d) for use with liquefied petroleum gases;e) for use with LP gas-air mixtures;f) for recreational vehicle installation for use with liquefied petroleum gases only (see Clause 4.1.27);g) for manufactured home (mobile home) installation convertible for use with natural gas and liquefied petroleum gases when provision is made for the simple conversion from one gas to the other (see Clause 4.1.26);h) for recreational vehicle installation convertible for use with natural gas and liquefied petroleum gases when provision is made for the simple conversion from one gas to the other (see Clause 4.1.27); andi) for use with combination potable water/space heating applications (see Clauses 3, Definitions, and Clause 4.1.30). <p>Automatic storage water heaters having input ratings of 75,000 Btu/hr (21 980 W) or less are covered in Volume I.</p>
1.1	
1.2	<p>Instantaneous water heaters with input ratings of 200,000 Btu/h (58 614 W) or less, which are designed to deliver water at a controlled temperature of less than 180 °F (82 °C), are subject to Federal minimum efficiency requirements for residential water heaters or covered in Clause 8, Items unique to Canada, are exempt from recovery, thermal efficiencies and standby loss, and related markings required by this Standard.</p>
1.3	<p>Direct vent water heaters anticipated by this Standard are essentially balanced flue appliances with the air intake and vent outlet in close proximity. Other designs are to be subjected to such additional tests as believed necessary at the discretion of the testing agency.</p>
1.4	<p>Water heaters for installation in recreational vehicles are to be of the direct vent type.</p>
1.5	<p>This Standard also applies to water heaters with draft hoods which are factory equipped with automatic vent damper devices (see Clause 3, Definitions), hereinafter referred to as vent damper devices.</p>
1.6	<p>This Standard also applies to water heaters of other than the direct vent type which are factory equipped with electrically operated or mechanically actuated automatic flue damper devices (see Clause 3, Definitions), hereinafter referred to as flue damper devices.</p>



CLAUSE	COMMENT
The following clauses contain the scope of UL 174:	
1	Scope
1.1	These requirements cover household electric storage tank and small capacity storage tank water heaters rated no more than 600 volts and 12 kilowatts to be installed in accordance with the National Electrical Code, NFPA 70, and with model plumbing and mechanical codes.
1.2	These requirements do not cover immersed electrode, side arm, booster, instantaneous or immersion type water heaters or water heating portions of water dispensing appliances. These requirements do not cover water heaters with a tank capacity of less than 1 gallon (3.8 L) or more than 120 gallons (454 L).
1.3	Electric booster water heaters, electric commercial storage tank water heaters, and remote control assemblies for such heaters, rated 600 volts or less are not covered by this standard. They are covered in the Standard for Electric Booster and Commercial Storage Tank Water Heaters, UL 1453.
1.4	Permanently installed electric water heaters, rated 600 volts or less, for heating the water supplied through plumbing to separately heated public or private pools or tubs, in which swimming, wading, bathing, or partial or total immersion of persons, is to be involved are not covered by this standard. They are covered in the Standard for Electric Water Heaters for Pools and Tubs, UL 1261.
1.5	Water heaters rated 600 volts or less with a tank capacity of less than 1 gallon (3.8 liters) are not covered by this standard. They are covered under the Standard for Electric Heating Appliances, UL 499.
1.6	A water heater intended for use in a hazardous location is to be judged on the basis of its compliance with these requirements; however, further examination and testing shall be conducted to determine whether it is acceptable for the intended use.



CLAUSE	COMMENT
The following clauses contain the scope of UL 1453:	
1	Scope
	These requirements cover electric booster water heaters, electric commercial storage tank water heaters, and remote control assemblies for such heaters, rated 600 volts or less, to be employed in ordinary locations in accordance with the National Electrical Code, NFPA 70, and that meet at least one of the following conditions:
1.1	a) Over 120 gallons (454 L) in capacity; b) Rated over 12 kilowatts; or c) Equipped with one or more temperature-regulating controls that permit a water temperature of more than 85°C (185°F).
1.2	These heaters are intended for installation in accordance with model mechanical and plumbing codes.
1.3	An electric water heater not exceeding 120 gallons (454 L) capacity, rated no more than 12 kilowatts, and equipped with a temperature-regulating thermostat having no marked dial setting more than 77°C (171°F) and provided with a stop to prevent adjustment to a higher setting, shall be judged in accordance with the requirements in the Standard for Household Electric Storage Tank Water Heaters, UL 174.
1.4	These requirements do not cover electric boilers, commercial cooking appliances, medical and dental equipment, or other electric heating equipment or appliances that are covered in or as part of individual requirements that are separate from this standard. Electrode type boilers are not covered by these requirements.
1.5	In the following text, a requirement that applies only to booster water heaters or to commercial storage-tank water heaters is so identified by a specific reference in that requirement to the equipment involved. Absence of such a specific reference or use of the term water heater indicates that the requirement applies to all of the equipment covered in this standard unless the context indicates otherwise.