



UL 1453

STANDARD FOR SAFETY

Electric Booster and Commercial Storage Tank Water Heaters

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UL Standard for Safety for Electric Booster and Commercial Storage Tank Water Heaters, UL 1453

Sixth Edition, Dated March 29, 2016

Summary of Topics

This revision of ANSI/UL 1453 is being issued to revise Table 45.1 – Maximum acceptable temperature rise, to provide for a maximum temperature rise for phenolic components used as electrical insulation, and editorial corrections.

The revised requirements are substantially in accordance with Proposal(s) on this subject dated March 16, 2018.

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March 29, 2016

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The most recent designation of ANSI/UL 1453 as an American National Standard (ANSI) occurred on May 18, 2018. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, and Title Page.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at <https://csds.ul.com>.

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INTRODUCTION

1 Scope

1.1 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:

- 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.