



**BSR/ASHRAE/IES Addendum dn  
to ANSI/ASHRAE/IES Standard 90.1-2022**

**Public Review Draft**

# **Proposed Addendum dn to Standard 90.1-2022, Energy Standard for Sites and Buildings Except Low- Rise Residential Buildings**

**First Public Review (July 2025)  
(Draft Shows Proposed Changes to Current Standard)**

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## FOREWORD

ASHRAE Guideline 12 and other codes and accreditation standards require service water heating storage temperatures of 140°F and higher to prevent microbial growth. Section 7.4.4.1 requires storage water heaters to be capable of thermostatic settings that allow storing water at temperatures of 120°F or lower. Although this requirement does not conflict with Guideline 12 or the other standards, it has caused concern in at least one jurisdiction that requires service water heating storage at higher temperatures. Further, some new technologies require production and storage at higher temperatures. Finally, existing safety standards require thermostatic controls for storage water heaters. Therefore, there is no longer a need for the requirement, and it should be deleted.

Cost-effectiveness: This measure does not change the cost of construction or reduce energy efficiency.

*[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]*

## Addendum dn to 90.1-2022

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Delete Section 7.4.4.1 (I-P and SI) as follows:

### 7.4.4 Service Water-Heating System Controls

**Informative Note:** Service water heating system control settings and operating temperatures should be determined in accordance with the ASHRAE Standard 188 *building water systems* water management program for the *building*, or with generally accepted engineering standards and guidance (e.g., ASHRAE Guideline 12).

~~7.4.4.1 Temperature Controls. Temperature controls shall be provided that allow for storage temperature adjustment from 120°F or lower to a maximum temperature compatible with the intended use.~~

~~**Exception to 7.4.4.1:** When the manufacturers' installation instructions specify a higher minimum thermostat setting to minimize condensation and resulting corrosion.~~

**7.4.4.12 Temperature Maintenance Controls.** *Systems* designed to maintain usage temperatures in hot water pipes, such as recirculating hot-water *systems* or *heat trace*, shall be equipped with *automatic* time switches or other controls that can be set to switch off the usage temperature maintenance *system* during extended periods when hot water is not required.

**7.4.4.23 Outlet Temperature Controls.** Temperature controlling means shall be provided to limit the maximum temperature of water delivered from lavatory faucets in *public facility restrooms* to 110°F [49°C].

**7.4.4.33 Circulating Pump Controls.** When used to maintain storage tank water temperature, recirculating *pumps* shall be equipped with controls limiting operation to a period from the start of the heating cycle to a maximum of five minutes after the end of the heating cycle.