



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

**Public Review Draft**

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

**First Public Review (November 2024)  
(Draft Shows Proposed Changes to Current Standard)**

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## FOREWORD

This addendum is a response to request from ASHRAE 189.3 members to require unoccupied setback in hospital/healthcare spaces. The working committee selected high air change spaces that ASHRAE/ASHE 170 permits unoccupied setback. An analysis was performed for both energy and carbon impact of these changes. The paybacks on both analyses were favorable. The energy analysis results were an SRL/SR (scalar ratio limit/scalar ratios) were favorable (>5). The social cost of carbon ratios was favorable as well (>9).

*[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 bh to 90.1-2022

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**6.4.3.3 Off-Hour Controls.** *HVAC Systems* shall have the off-hour controls required by Sections 6.4.3.3.1 through 6.4.3.3.5 6.

**6.4.3.3.6 Healthcare Unoccupied Turndown.** In healthcare occupancies HVAC controls for zones comprising the following space types: Operating Rooms, Surgical Cystoscopy Rooms, Procedure Rooms, Class 2 and Class 3 Imaging Rooms shall be capable of and configured to reduce room airflow during unoccupied periods to no more than the larger of the airflow required to achieve relative room pressure relationships per ASHRAE/ASHE Standard 170 or 20% of the airflow required to achieve the minimum total air changes per hour in accordance with ASHRAE/ASHE Standard 170.

Each zone shall be programmed to enter unoccupied periods based on an occupancy schedule. During scheduled unoccupied periods, a zone occupancy sensor or occupant operable override function shall be used to command the associated zone back into occupied mode for a programmable period when activated. Where more than 50% of zones served by an existing system are altered, the otherwise unaltered zones shall also comply.

### **Exceptions to 6.4.3.3.6:**

1. The greater of two or 25% of zones for each type of space can be configured as occupied continuously to support readiness for emergency patient care for each space function. Such zones are not exempt from having the capability of turn down in new construction or additions.
2. Where the AHJ has not yet adopted a version of ASHRAE/ASHE Standard 170 permitting turn down, the system shall be capable of turn down but need not be configured to turn down.