



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

**Public Review Draft**

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

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

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## FOREWORD

This addendum clarifies the requirements in Section 6.1 for alterations by aligning the structure of Section 6.1.4 with similar sections covering alterations in Sections 5.1.4, 7.1.4, 8.1.4, and 9.1.1.3 of the standard. The prior text for Section 6 was unclear regarding alterations other than direct replacements. The requirements for new buildings and additions are unchanged.

### Cost justification:

There is no substantial change to the requirements, so the cost of construction is unchanged

*[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (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 da to 90.1-2022

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### 6.1 General

**6.1.1 Scope.** Section 6 specifies requirements for mechanical *equipment* and *systems*.

**6.1.2 New Buildings.** Mechanical *equipment* and *systems* serving the heating, cooling, ventilating, or refrigeration needs of new *buildings* shall comply with ~~the requirements of this section as described in~~ accordance with Section 6.2.

**6.1.3 Additions to Existing Buildings.** Mechanical *equipment* and *systems* serving the heating, cooling, ventilating, or refrigeration needs of *additions to existing buildings* shall comply with ~~the requirements of~~ this section as described in accordance with Section 6.2.

**Exception to 6.1.3:** ~~When~~ Where HVACR to an *addition* is provided by existing HVACR *systems* and *equipment*, unaltered portions of such existing systems and equipment shall not be required to comply with this standard. ~~However, any new~~ New *systems* or *equipment* ~~installed must~~ shall comply with specific requirements applicable to those *systems* and *equipment*.

### 6.1.4 Alterations to Heating, Ventilating, Air Conditioning, and Refrigeration in Existing Buildings

All alterations shall comply with Section 6.2 and Sections 6.1.4.1 to 6.1.4.3. Other than where required for compliance with Sections 6.1.4.1 to 6.1.4.3, equipment, controls, piping, and ducts within the alteration area or served by the altered system that are not replaced or altered shall not be required to comply with Section 6.2.

Alterations to existing cooling systems shall not decrease economizer capability except where the altered system complies with Section 6.5.1.

**Exceptions to 6.1.4:** ~~Compliance shall not be required~~

1. ~~for equipment~~ that is being modified or repaired but not replaced, provided that such modifications and/or *repairs* will not result in an increase in the annual *energy* consumption or capacity of the *equipment* ~~using the same energy type;~~

2. minor alterations limited to ductwork or piping within a single room that do not increase the energy consumed by the HVAC system. where a replacement or alteration of equipment requires extensive revisions to other systems, equipment, or elements of a building, and such replaced or altered equipment is a like-for-like replacement;
3. ~~for a refrigerant changes of existing equipment;~~
4. ~~for the relocation of existing equipment within a single space; or~~
5. ~~for ducts and piping where there is insufficient space or access to meet these requirements.~~
5. Replacement equipment located indoors shall not be required to comply with Section 6.5.1.1, “Air Economizers.” where the equipment being replaced did not comply.
6. compliance with Section 6.4.3.3.4, “Zone Isolation”
7. compliance with Section 6.5.1.2, “Fluid Economizers.” for alterations to cooling systems that do not include a fluid economizer.
8. compliance with Section 6.4.3.8, “Ventilation Controls for High-Occupancy Areas” within an altered zone shall not require alterations to the common multiple zone fan system controls where the associated common equipment or its controls are not altered.

**6.1.4.1** New HVAC equipment is as a direct replacement of existing HVAC equipment, Alterations shall comply with the following sections as applicable within the alteration area or altered equipment serving the alteration area for the equipment being replaced.

- a. ~~6.3, “Simplified Approach Building Compliance Path for HVAC Systems”~~
- b. ~~6.4.1, “Equipment Efficiencies, Verification, and Labeling Requirements”~~
- ea. ~~6.4.3.1, “Zone Thermostatic Controls” for altered equipment and spaces. In multiple zone systems terminal controls need not be altered in spaces that are not part of the alteration area where the multiple zone system is altered.~~
- d-b. ~~6.4.3.2, “Set-Point Overlap Restrictions” where terminals are altered, where space heating or cooling systems or equipment that are dedicated to the altered space and at least one of these is altered, or where zone thermostatic controls are altered.~~
- e-c. ~~6.4.3.3, “Off-Hour Controls” except for Section 6.4.3.3.4, “Zone Isolation”~~
- f-d. ~~6.4.3.4, “Ventilation System Controls”~~
- g. ~~6.4.3.7, “Freeze Protection and Snow/Ice Melting Systems”~~
- h. ~~6.4.3.8, “Ventilation Controls for High-Occupancy Areas” only for single zone equipment~~
- i. ~~6.4.3.9, “Heated or Cooled Vestibules or Air Curtains with Integral Heating”~~
- e. ~~6.4.3.10 “Direct Digital Control Requirements”~~
- k. ~~6.4.5, “Walk-In Coolers and Walk-In Freezers”~~
- l. ~~6.5.1.1, “Air Economizers” for units located outdoors~~
- m. ~~6.5.1.3, “Integrated Economizer Control”~~
- n. ~~6.5.1.4, “Economizer Heating System Impact”~~
- o. ~~6.5.3.1.1 “Fan Power Limits”~~
- p. ~~6.5.3.1.3, “Fan Efficiency”~~
- q. ~~6.5.3.2.1, “Supply Fan Airflow Control”~~
- r. ~~6.5.3.6, “Fractional Horsepower Fan Motors”~~
- s. ~~6.5.4.1, “Boiler Turndown”~~
- t-f. ~~6.5.4.3, “Chiller and Boiler Isolation”~~
- u. ~~6.5.5.2, “Fan Speed Control”~~

**6.1.4.2** ~~New cooling systems installed to serve previously uncooled spaces shall comply with this section as described in Section 6.2.~~

**6.1.4.3** ~~Alterations to existing cooling systems shall not decrease economizer capability except where the altered system complies with Section 6.5.1.~~

**6.1.4.4** 2 New and replacement ductwork shall comply with Sections 6.4.4.1 and 6.4.4.2.

**6.1.4.5** 3 New and replacement piping shall comply with Section 6.4.4.1.