



ADDENDA

**ANSI/ASHRAE/IES Addendum n to
ANSI/ASHRAE/IES Standard 90.1-2019**

Energy Standard for Buildings Except Low-Rise Residential Buildings

Approved by ASHRAE and the American National Standards Institute on October 30, 2020, and by the Illuminating Engineering Society on October 6, 2020.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. Instructions for how to submit a change can be found on the ASHRAE® website (<https://www.ashrae.org/continuous-maintenance>).

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FOREWORD

Addendum n adds an exception to the requirements in Section 6.5.2.6 for units that use only series energy recovery for reheating dehumidified air. The rationale for this section is that when the building needs sensible cooling energy, reheating of the ventilation airstream causes energy to be wasted, even with free condenser reheat. Work done by the ventilation unit compressor is unnecessarily destroyed by the reheat and increased load on the zone unit compressors.

There is a form of reheating called "series energy recovery" that reheats using energy pulled from the area upstream of the cooling coil. Any reheating of the airstream with series energy recovery results in an equivalent reduction of the load on the unit's compressor, so the rationale for Section 6.5.2.6 no longer applies. The exception is only allowed in Climate Zones 0A, 1A, 2A, 3A, and 4A because the additional fan power required by series energy recovery is likely to outweigh the energy saving provided in cool or dry climates.

This addendum would lower the cost of using series energy recovery, as the expensive controls that are currently required can be eliminated. It does not affect the cost of using other forms of reheating during dehumidification.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~strike through~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.

Addendum n to Standard 90.1-2019

Modify the standard as shown (I-P and SI units).

6.5.2.6 Ventilation Air Heating Control. Units that provide *ventilation* air to multiple zones and operate in conjunction with zone heating and cooling *systems* shall not use heating or heat recovery to warm supply air above 60°F (16°C) when representative *building* loads or *outdoor air* temperature indicate that the majority of zones require cooling.

Exception to 6.5.2.6: Units that heat the airstream using only series energy recovery when representative building loads or outdoor air temperature indicate that the majority of zones require cooling in Climate Zones 0A, 1A, 2A, 3A, and 4A.

POLICY STATEMENT DEFINING ASHRAE'S CONCERN FOR THE ENVIRONMENTAL IMPACT OF ITS ACTIVITIES

ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted Standards and the practical state of the art.

ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating Standards and Guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system's intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE's primary concern for environmental impact will be at the site where equipment within ASHRAE's scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.

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As an industry leader in research, standards writing, publishing, certification, and continuing education, ASHRAE and its members are dedicated to promoting a healthy and sustainable built environment for all, through strategic partnerships with organizations in the HVAC&R community and across related industries.

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