

ADDENDA

**ANSI/ASHRAE/IES Addendum w 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 February 26, 2021, and by the Illuminating Engineering Society on February 18, 2021.

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 w adds changes that clarify that baseline building design chillers should be sized based on the total peak coincident cooling load of baseline HVAC systems of Type 7, 8, 11, 12 and 13. The current language requires that the building peak cooling load be used for sizing baseline chillers and this creates confusion in instances where a building may have a large portion of the cooling load served by DX cooling systems.

This addendum impacts an optional performance path in the standard designed to provide increased flexibility and therefore was not subjected to cost effectiveness analysis.

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 w to Standard 90.1-2019

Modify Section G3.1.3.7 and Table G3.1.3.7 as shown (I-P and SI units)

G3.1.3.7 Type and Number of Chillers (Systems 7, 8, 11, 12, and 13). Electric chillers shall be used in the *baseline building design* regardless of the cooling *energy* source, e.g. direct-fired absorption or absorption from purchased steam. The *baseline building design's* chiller plant shall be modeled with chillers having the number and type as indicated in Table G3.1.3.7 ~~as a function of building~~ based on the peak coincident cooling load of baseline HVAC systems using chilled water.

Exception to G3.1.3.7: *Systems* using purchased chilled water shall be modeled in accordance with Section G3.1.1.3.

Table G3.1.3.7 Type and Number of Chillers

<u>Building Peak Coincident Cooling Loads of Baseline HVAC Systems Using Chilled Water</u>	Number and Type of Chillers
≤300 tons (1055 kW)	1 water-cooled screw chiller
>300 tons (1055 kW), <600 tons (2110 kW)	2 water-cooled screw chillers sized equally
≥600 tons (2110 kW)	2 water-cooled centrifugal chillers minimum with chillers added so that no chiller is larger than 800 tons (2813 kW), all sized equally

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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.

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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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