

Public Review Draft

Proposed Addendum to Standard 189.1-2017

Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings

First Public Review Draft (October 2019)
(Draft Shows Proposed Changes to Current Standard)

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(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

Foreword

This addendum clarifies several issues related to Chapter 7. It moves the climate zone requirements from Appendix A to a new section in Chapter 7 (Section 7.3.1.1) and removes the term “climate zone” from Section 3 where it had merely contained a reference to the former appendix location.

Section 7.3.1 clarifies the mandatory requirements for energy efficiency per the latest updates to Standard 90.1. Section 7.4 has been modified in accordance with a June 2018 request for official interpretation to clarify the requirements for prescriptive compliance with Standard 189.1.

Finally, the phrase “occupant sensor” has been changed to “occupancy sensor” to be consistent with Standard 90.1.

[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 ao to 189.1-2017

Revise Section 3 as follows:

~~climate zone:~~ see Normative Appendix A.

Revise Section 7 as follows:

7. ENERGY EFFICIENCY

7.1 Scope. This section specifies requirements for energy efficiency for buildings and appliances, for *on-site renewable energy systems*, and for energy measuring.

7.2 Compliance. The energy systems shall comply with Section 7.3, “Mandatory Provisions,” and either

- a. Section 7.4, “Prescriptive Option,” or
- b. Section 7.5, “Performance Option.”

7.3 Mandatory Provisions

7.3.1 General. *Building projects* shall be designed to comply with Sections 5.2.1, 6.2.1, 7.2.1, 8.2.1, 9.2.1, and 10.2.1 ~~5.4, 6.4, 7.4, 8.4, 9.4, and 10.4~~ of *ANSI/ASHRAE/IES Standard 90.1*.

7.3.1.1 Climate Zones. For *climate zones*, see ANSI/ASHRAE/IES Standard 90.1, Section 5.1.4, and ANSI/ASHRAE Standard 169.

- a. For locations in the United States and its territories, use ANSI/ASHRAE Standard 169, Table B-1, “U.S. States by State and County,” to determine the assigned climate zone and, where required, the assigned climate zone letter.

Informative Note: Reference Standard Reproduction Annex ASHRAE Standard 169 (included at the end of this document) contains an extraction of ANSI/ASHRAE Standard 169, Figure B-1, “Climate Zone for United States Counties,” (which is informative for Standards 90.1 and 189.1). ANSI/ASHRAE/IES Standard 90.1 Reference Standard Reproduction Annex ASHRAE Standard 169 (included at the end of ANSI/ASHRAE/IES Standard 90.1) contains an extraction of ANSI/ASHRAE Standard 169, Table B-1, “U.S. States by State and County.”

- b. For locations in Canada that are listed in ASHRAE Standard 169, Table A-5, “Canada Stations and Climate Zones,” use this table to determine the assigned climate zone number and, where required, the assigned climate zone letter. For locations in other international countries that are listed in ASHRAE Standard 169, Table A-6, “International Stations and Climate Zones,” use this table to determine the required climate zone number and, where required, the assigned *climate zone* letter. For all international locations that are not listed either in ASHRAE Standard 169, Table A-5 or Table A-6, use ASHRAE Standard 169, Section A3, “Climate Zone Definitions,” and Table A-3, “Thermal Climate Zone Definitions,” to determine both the *climate zone* number and letter.

Informative Note: Reference Standard Reproduction Annex ASHRAE Standard 169 (included at the end of this document) contains an extraction of ASHRAE Standard 169, Section A3, “Climate Zone Definitions,” and Table A-3, “Thermal Climate Zone Definitions.” ANSI/ASHRAE/IES Standard 90.1 Reference Standard Reproduction Annex ASHRAE Standard 169 (included at the end of ANSI/ASHRAE/IES Standard 90.1) contains an extraction of ASHRAE Standard 169, Table A-5, “Canada Stations and Climate Zones,” and Table A-6, “International Stations and Climate Zones.”

7.3.1.1 7.3.1.2 Continuous Air Barrier.

...

7.3.2 On-Site Renewable Energy Systems.

...

7.3.3 Energy Consumption Management.

...

7.3.4 Automated Demand Response.

...

7.4 Prescriptive Option

7.4.1 General Comprehensive Prescriptive Requirements. ~~When~~ Where a requirement is provided in this section below, it supersedes the requirement in ANSI/ASHRAE/IES Standard 90.1. For all other criteria, the *building project* shall comply with the requirements of ANSI/ASHRAE/IES Standard 90.1, Chapters 5 through 10.

7.4.1.1 7.4.1 On-Site Renewable Energy Systems.

(Renumber subsections of 7.4.1.1, now 7.4.1)

...

7.4.6.2 Occupancy Sensor Controls with Multilevel Switching or Dimming. The lighting in commercial and industrial storage stack areas shall be controlled by an ~~occupant~~ occupancy sensor with multilevel switching or dimming system that reduces lighting power a minimum of 50% within 20 minutes of all occupants leaving the stack area.

(Remainder of section and sections not shown have not changed.)

Revise Appendix A as follows:

NORMATIVE APPENDIX A

~~CLIMATE ZONES AND PRESCRIPTIVE BUILDING~~

~~ENVELOPE AND DUCT INSULATION TABLES~~

Tables A-1 through A-3 appear twice in this appendix. The three tables are shown first with I-P units, followed by three tables with SI units.

~~For climate zones, see ANSI/ASHRAE/IES Standard 90.1, Section 5.1.4, and ANSI/ASHRAE Standard 169.~~

- a. ~~For locations in the United States and its territories, use ANSI/ASHRAE Standard 169, Table B-1, “U.S. States by State and County,” to determine the assigned climate zone and, where required, the assigned climate zone letter. **Informative Note:** Reference Standard Reproduction Annex ASHRAE Standard 169 (included at the end of this document) contains an extraction of ANSI/ASHRAE Standard 169, Figure B-1, “Climate Zone for United States Counties,” (which is informative for Standards 90.1 and 189.1). ANSI/ASHRAE/IES Standard 90.1 Reference Standard Reproduction Annex ASHRAE Standard 169 (included at the end of ANSI/ASHRAE/IES Standard 90.1) contains an extraction of ANSI/ASHRAE Standard 169, Table B-1, “U.S. States by State and County.”~~
- b. ~~For locations in Canada that are listed in ASHRAE Standard 169, Table A-5, “Canada Stations and Climate Zones,” use this table to determine the assigned *climate zone* number and, where required, the assigned *climate zone* letter. For locations in other international countries that are listed in ASHRAE~~

~~Standard 169, Table A-6, “International Stations and Climate Zones,” use this table to determine the required *climate zone* number and, where required, the assigned *climate zone* letter. For all international locations that are not listed either in ASHRAE Standard 169, Table A-5 or Table A-6, use ASHRAE Standard 169, Section A3, “Climate Zone Definitions,” and Table A-3, “Thermal Climate Zone Definitions,” to determine both the *climate zone* number and letter. **Informative Note:** Reference Standard Reproduction Annex ASHRAE Standard 169 (included at the end of this document) contains an extraction of ASHRAE Standard 169, Section A3, “Climate Zone Definitions,” and Table A-3, “Thermal Climate Zone Definitions.” ANSI/ASHRAE/IES Standard 90.1 Reference Standard Reproduction Annex ASHRAE Standard 169 (included at the end of ANSI/ASHRAE/IES Standard 90.1) contains an extraction of ASHRAE Standard 169, Table A-5, “Canada Stations and Climate Zones,” and Table A-6, “International Stations and Climate Zones.”~~

(Remainder of section does not change)

Note to reviewers:

Addendum ad deleted Tables A-2 and A-3.