



# ADDENDA

**ANSI/ASHRAE Addendum j to  
ANSI/ASHRAE Standard 55-2010**

# Thermal Environmental Conditions for Human Occupancy

Approved by the ASHRAE Standards Committee on April 2, 2013; by the ASHRAE Board of Directors on April 15, 2013; and by the American National Standards Institute on April 16, 2013.

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. The change submittal form, instructions, and deadlines may be obtained in electronic form from the ASHRAE website ([www.ashrae.org](http://www.ashrae.org)) or in paper form from the Manager of Standards.

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ASHRAE obtains consensus through participation of its national and international members, associated societies, and public review.

ASHRAE Standards are prepared by a Project Committee appointed specifically for the purpose of writing the Standard. The Project Committee Chair and Vice-Chair must be members of ASHRAE; while other committee members may or may not be ASHRAE members, all must be technically qualified in the subject area of the Standard. Every effort is made to balance the concerned interests on all Project Committees.

The Manager of Standards of ASHRAE should be contacted for:

- interpretation of the contents of this Standard,
- participation in the next review of the Standard,
- offering constructive criticism for improving the Standard, or
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## FOREWORD

*Addendum c added a definition for “prevailing mean outdoor temperature” to the adaptive model including calculation procedures. The public review draft of subsequent Addendum d mistakenly deleted the calculation procedures section. This addendum inserts the calculation procedures from Addendum c back into the standard.*

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

### Addendum j to Standard 55-2010

*Revise Section 5.3.2 as shown to include the full methodology for calculating prevailing mean outdoor air temperature. This change includes changes published in Addenda c and d to Standard 55-2010 currently published and posted for free on the ASHRAE website at [www.ashrae.org/standards-research--technology/standards-addenda](http://www.ashrae.org/standards-research--technology/standards-addenda).*

## 5.3.2 Methodology

**5.3.2.1** The allowable indoor operative temperatures shall be determined from Figure 5.3 using the 80% acceptability limits. Note: the 90% acceptability limits are included

for information only (see Informative Appendix X for further guidance). The prevailing mean outdoor air temperature shall be determined in accordance with all of the following.

**5.3.2.1.1** It shall be based on no fewer than 7 and no more than 30 sequential days prior to the day in question.

**5.3.2.1.2** It shall be a simple arithmetic mean of all of the mean daily outdoor air temperatures of all the sequential days in Section 5.3.2.1.1.

**Exception to Section 5.3.2.1.2:** Weighting methods are permitted, provided that the weighting curve continually decreases towards the more distant days such that the weight applied to a day is between 0.6 and 0.9 of that applied to the subsequent day. For this option, the upper limit on the number of days in the sequence does not apply.

**5.3.2.1.3** Mean daily outdoor air temperature for each of the sequential days in Section 5.3.2.1.1 shall be the simple arithmetic mean of all the outdoor dry-bulb temperature observations for the 24 hour day. The quantity of measurements shall be no less than two and in that case shall be the minimum and maximum for the day. When using three or more measurements, the time periods shall be evenly spaced.

**5.3.2.1.4** Observations in Section 5.3.2.1 shall be from the nearest approved meteorological station, public or private, or Typical Meteorological Year (TMY) weather file.

**Exception to Sections 5.3.2.1.1, 5.3.2.1.2, 5.3.2.1.3:** When weather data to calculate the prevailing mean outdoor air temperature are not available, it is permitted to use as the prevailing mean the published meteorological monthly means for each calendar month. It is permitted to interpolate between monthly means.



## **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.

