



ADDENDA

**ANSI/ASHRAE Addendum b to
ANSI/ASHRAE Standard 160-2009**

Criteria for Moisture-Control Design Analysis in Buildings

Approved by the ASHRAE Standards Committee on October 2, 2012; by the ASHRAE Board of Directors on October 26, 2012; and by the American National Standards Institute on October 27, 2012.

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ISSN 1041-2336



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

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FOREWORD

This addendum modifies Section 4.3 and Table 4.3.2 as shown below.

Section 4.3: The SSPC realized that indoor design humidities exceeding 70% RH are excessive and would likely lead directly to indoor mold and should therefore not be allowed for design analysis.

Table 4.3.2: It has become apparent that the residential generation rates in Table 4.3.2 are very high. Changes to Table 4.3.2 are based on recent analysis of measured indoor humidity and ventilation data.

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 b to Standard 160-2009

Revise Section 4.3 and Table 4.3.2 as follows.

4.3 Indoor Design Humidity. If the HVAC equipment and controls are included in the design, the intended design indoor humidity shall be used. If no such provisions are made, then indoor design humidity shall be determined by one of three methods:

- Simplified method (in accordance with Section 4.3.1)
- Intermediate method (in accordance with Section 4.3.2)
- Full parameter calculation (in accordance with Section 4.3.3)

Indoor design humidity shall not exceed 70% RH.

The indoor design humidity shall be checked for compliance with applicable standards, such as ANSI/ASHRAE Standard 55.¹ If calculated design humidity is outside the ranges specified, measures shall be taken to bring the humidity within the specified range.

Table 4.3.2 Residential Design Moisture Generation Rates

Number of Bedrooms	Number of Occupants	Moisture Generation Rate		
1 bedroom	2	8 <u>7</u> L/day	0.9 <u>0.8</u> x 10 ⁻⁴ kg/s	0.7 <u>0.64</u> lb/h
2 bedrooms	3	12 <u>9</u> L/day	1.4 <u>1.0</u> x 10 ⁻⁴ kg/s	1.1 <u>0.83</u> lb/h
3 bedrooms	4	14 <u>10</u> L/day	1.6 <u>1.2</u> x 10 ⁻⁴ kg/s	1.3 <u>0.92</u> lb/h
4 bedrooms	5	15 <u>11</u> L/day	1.7 <u>1.3</u> x 10 ⁻⁴ kg/s	1.4 <u>1.0</u> lb/h
Additional bedrooms	+1 per bedroom	+1 L/day	+0.1 x 10 ⁻⁴ kg/s	+0.1 lb/h

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.

