



ADDENDA

**ANSI/ASHRAE Addendum p to
ANSI/ASHRAE Standard 62.1-2022**

Ventilation and Acceptable Indoor Air Quality

Approved by ASHRAE and the American National Standards Institute on April 30, 2024.

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 (www.ashrae.org/continuous-maintenance).

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Cognizant TC: 4.3, Ventilation Requirements and Infiltration

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FOREWORD

A proposal incorporating ANSI/ASHRAE Standard 62.1 language, specifically Section 5.4, "Outdoor Air Intakes," into the Uniform Mechanical Code (UMC) was submitted to IAPMO and approved for inclusion in the 2024 UMC. This proposal, known as Item #235 in the 2024 IAPMO UMC process, received a comment from AMCA International suggesting that clarifications be made to the borrowed Standard 62.1 language before it becomes part of the UMC. Through this Continuous Maintenance Proposal (CMP), AMCA aims to update the original Standard 62.1 language and introduce further improvements to the section.

As a part of these enhancements, Addendum p adds a definition for hurricane-prone regions in line with the 2021 International Building Code (IBC) definition, clarifies and improves the applicable options regarding rain entrainment requirements (Section 5.4.2, options b and c), and adds ANSI/AMCA Standard 550 to the normative references. The reference to AMCA Standard 550 is intended to more effectively align the code requirements in IMC Sections 401.5 and 501.3.2.

By incorporating AMCA Standard 550 louvers, which offer enhanced water management, increased confidence, and superior performance in hurricane-prone regions, the proposal seeks to provide necessary clarifications to these options. Furthermore, it aims to address the indicated requirements from AMCA's test standards for louvers and establish better harmony between the International Mechanical Code (IMC), UMC, and the proposed changes. Looking ahead to the 2027 UMC proposals, set to commence early in 2024, AMCA can synchronize the Standard 62.1 language with the language introduced in the 2024 UMC edition.

Informative 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 p to Standard 62.1-2022

Modify Section 3 as follows.

hurricane-prone regions: areas vulnerable to hurricanes, defined as

- a. the U.S. Atlantic Ocean and Gulf of Mexico coasts where the basic design wind speed, V , for Risk Category II buildings is greater than 115 mph (51.4 m/s);
- b. Hawaii, Puerto Rico, Guam, Virgin Islands, and American Samoa; or
- c. as specified by the authority having jurisdiction (AHJ)

Modify Section 5.4.2 as follows.

5.4.2 Rain Entrainment. Outdoor air intakes that are part of the mechanical ventilation system shall be designed to manage rain entrainment in accordance with one or more of the following:

- a. Limit water penetration through the intake to $0.07 \text{ oz/ft}^2 \cdot \text{h}$ ($21.5 \text{ g/m}^2 \cdot \text{h}$) of inlet area when tested using the rain test apparatus described in UL 1995, ~~Section 58,~~ or UL 60355-2-40.
- b. Select louvers that limit water penetration to a maximum of 0.01 oz/ft^2 (3 g/m^2) of louver free area at the maximum free area intake velocity through the louver. This water penetration rate shall be determined for a minimum 15 minute test duration when subjected to a water flow rate of 0.25 gal/min (16 mL/s) as described under the water penetration test in AMCA 500-L or equivalent. Manage the water that penetrates the louver by providing a drainage area or moisture removal devices. For buildings located within hurricane-prone regions, select louvers that also comply with Section 5.4.2.1.
- c. Select louvers that are Class A when rated according to AMCA Publication 511 and tested per the AMCA 500-L ~~restrict wind-driven rain test penetration to less than $2.36 \text{ oz/ft}^2 \cdot \text{h}$ ($721 \text{ g/m}^2 \cdot \text{h}$) when subjected to a simulated rainfall of 3 in. (75 mm) per hour and a 29 mph (13 m/s) wind velocity. The maximum design core area velocity through the louver shall correlate to a Class A rating, at the design outdoor air intake rate with the air velocity calculated based on the louver face area. (Informative Note: This performance corresponds to Class A (99% effectiveness) when rated according to AMCA 511 and tested per AMCA 500-L.)~~ For buildings located within hurricane-prone regions, select louvers that also comply with Section 5.4.2.1.

- d. Use rain hoods sized for no more than 500 fpm (2.5 m/s) face velocity with a downward-facing intake such that all intake air passes upward through a horizontal plane that intersects the solid surfaces of the hood before entering the system.
- e. Manage the water that penetrates the intake opening by providing a drainage area or moisture removal devices.

5.4.2.1 Louvers Located within Hurricane-Prone Regions. Louvers that protect air intake or exhaust openings in buildings located in hurricane-prone regions shall comply with the requirements of AMCA Standard 550.

Exception to 5.4.2.1: Louvers integral to equipment.

Add the following references to Section 9. The remainder of the Section 9 references are unchanged.

		Section
[...]		
Air Movement and Control Association International, Inc. (AMCA)		
30 West University Drive Arlington Heights, IL 60004-1893, United States 1-847-394-0150; www.amca.org		
AMCA 500-L-15	Laboratory Methods of Testing Louvers for Rating	5.4.2
<u>AMCA Publication 511-21 (Rev. 12-22)</u>	<u>Certified Ratings Program—Product Rating Manual for Air Control Devices</u>	<u>5.4.2</u>
<u>ANSI/AMCA Standard 550-22</u>	<u>Test Method for High Velocity Wind Driven Rain Resistant Louvers</u>	<u>5.4.2.1</u>
[...]		
Underwriters Laboratories, LLC. (UL)		
333 Pfingsten Road Northbrook, IL 60062, United States 847-272-8800; www.ul.com ; cec.us@us.ul.com		
UL 181 (2013)	Factory-Made Air Ducts and Air Connectors, 11th Edition	5.11.1, 5.11.2
UL 1995 (2015)	Heating and Cooling Equipment, 5th Edition	5.4.2, 5.4.3
UL 2998 (2016)	Environmental Claim Validation Procedure (ECVP) for Zero Ozone Emissions from Air Cleaners	5.9.1
<u>UL 60355-2-40</u>	<u>Household and Similar Electrical Appliances—Safety—Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers, 4th Edition</u>	<u>5.4.2</u>
[...]		

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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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