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

Public Review Draft

Proposed Addendum p to Standard 62.1-2022, Ventilation and Acceptable Indoor Air Quality

First Public Review (February 2024)
(Draft shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, www.ashrae.org.

The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHARE of any product, service, process, procedure, or design, and ASHRAE expressly disclaims such.

ASHRAE, 180 Technology Parkway, Peachtree Corners, Georgia 30092

(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

A proposal was submitted to IAPMO and approved for inclusion in the 2024 Uniform Mechanical Code (UMC), incorporating ASHRAE 62.1 language, specifically this section, into the UMC. This proposal, known as Item #235 in the 2024 IAPMO UMC process, received a comment from AMCA International. AMCA's comment suggested making clarifications to the borrowed 62.1 language before it becomes part of the UMC. Through this Continuous Maintenance Proposal (CMP), AMCA aims to update the original 62.1 language and introduce further improvements to the section. These enhancements involve the addition of a definition for hurricane-prone regions in line with the 2021 International Building Code (IBC) definition, clarification, and improvement of the applicable options (b and c) regarding rain entrainment requirements, and the inclusion of a normative reference to ANSI/AMCA 550. The reference to AMCA 550 is intended to align the code requirements in IMC Section 401.5 and Section 501.3.2 more effectively. By incorporating AMCA 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), Uniform Mechanical Code (UMC), and the proposed changes. Looking ahead to the 2027 UMC proposals, set to commence early in 2024, AMCA can synchronize the 2021 language with the language introduced in the 2024 UMC edition.

[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 p to 62.1-2022

Add definition for hurricane prone regions to Section 3 as shown below.

hurricane-prone regions: Areas vulnerable to hurricanes defined as:

1. The US 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);
2. Hawaii, Puerto Rico, Guam, Virgin Islands and American Samoa.
3. Or as specified by the Authority Having Jurisdiction (AHJ).

Modify Section 5.4.2 as shown below.

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 oz/ft^2·h (21.5 g/m^2·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 511 and tested per the AMCA 500-L ~~restrict~~ wind-driven rain test ~~penetration to less than 2.36 oz/ft^2·h (721 g/m^2·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 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.

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
Section 5.4.2

AMCA Publication 511-21 (Rev. 12-22) Certified Ratings Program — Product Rating Manual for Air Control Devices
Section 5.4.2

ANSI/AMCA Standard 550-22 Test Method for High Velocity Wind Driven Rain Resistant Louvers
Section 5.4.2.1

…

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
Section 5.11.1, 5.11.2

UL 1995 (2015) Heating and Cooling Equipment, 5th Edition
Section 5.4.2, 5.4.3

UL 2998 (2016) Environmental Claim Validation Procedure (ECVP) for Zero Ozone Emissions from Air Cleaners
Section 5.9.1

UL 60355-2-40 Household and Similar Electrical Appliances - Safety - Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers, 4th Edition
Section 5.4.2