



**BSR/ASHRAE/IES Addendum g
to ANSI/ASHRAE/IES Standard 90.2-2018**

Public Review Draft

Proposed Addendum g to Standard 90.2-2018, High-Performance Energy Design of Residential Buildings

**First Public Review (January 2023)
(Draft Shows Proposed Changes to Current Standard)**

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ASHRAE, 180 Technology Parkway NW, Peachtree Corners, GA 30092

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FOREWORD

90.2's Title, Purpose, and Scope (TPS) was revised to position 90.2 as a leadership standard that can address whole building requirements (including indoor environmental quality). The 62.2/90.2 Advanced Ventilation & IAQ Work Group (WG) was organized to identify and align advanced IAQ opportunities that could integrate with 90.2's, whole-building, leadership standard approach (since 62.2 is a minimum standard). The WG met monthly between September 2020 and January 2021 and employed the U.S. Environmental Protection Agency's Indoor airPLUS v2 program as a framework. The following proposed addendum reflects the thirteen recommended additions and/or edits proposed to Standard 90.2 by the WG.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (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 g to 90.2-2018

Modify Section 7 as follows:

7.3 Indoor Environmental Quality

7.3.1 Buildings shall be thermally conditioned in accordance with ANSI/ASHRAE Standard 55.

7.3.2 *Dwelling units shall be mechanically ventilated in accordance with meet all requirements of ANSI/ASHRAE Standard 62.2 except as modified by section 7.3 of this Standard. Common spaces of multifamily residential buildings shall be mechanically ventilated in accordance with ANSI/ASHRAE Standard 62.1.*

7.3.3 Buildings shall be illuminated in accordance with Section 7.5.

7.3.4 Filtration and Air Cleaning

7.3.4.1 Mechanical systems that supply air to an occupiable space through ducts shall be provided with a filter having a designated minimum efficiency of MERV 13 or better when tested in accordance with ANSI/ASHRAE Standard 52.2 or equivalent.

- a. All filter access panels shall be equipped with gaskets or comparable sealing mechanisms and shall fit snugly against the exposed edge of the installed filter when closed to prevent bypass
- b. The system shall include a nominal two-inch minimum filter depth.

7.3.4.2 All electronic air cleaners (i.e., electrostatic, ionizers, and ultraviolet lamps) shall meet UL Standard 2998.

7.3.5 Garages

Detached single-family dwellings, duplexes and townhouses with attached garages shall meet one of the following two requirements:

7.3.5.1 Verify that the garage-to-house air barrier can maintain a pressure difference of greater than 45 Pa while the home maintains a 50 Pascal pressure difference with respect to the outdoors. All operable garage openings shall be closed during this test.

7.3.5.2 A local mechanical exhaust system that is vented directly outdoors shall be installed in the garage to deliver a minimum flow rate of 170 m³/h (100 cfm). The system shall meet the requirements of Section 5.3 Continuous Mechanical Exhaust of Standard 62.2- 2019.

7.3.6 Material Emissions Dwellings shall be constructed with materials meeting the requirements of Sections 6.1 Composite Wood; 6.2 Interior Paints, Finishes, and Coatings; 6.3 Carpets and Cushions; 6.4 Adhesives and Sealants; 6.5 Hard Surface Flooring; 6.6 Gypsum Board; and 6.7 Insulation of Indoor airPLUS New Construction (IAP-NC) Specifications Version 2.

Informative Note: Guidance from the U.S. Environmental Protection Agency on identifying products that are compliant with these specifications, including the identification of product certification and labeling programs that are acceptable, may be found at https://www.epa.gov/sites/default/files/2017-01/documents/how_to_find_compliant_low_emission_products_508.pdf

7.3.7 Radon Dwellings shall meet the requirements of Section 2.2 Radon-Resistant Construction of Indoor airPLUS New Construction (IAP-NC) Specifications Version 2.

7.3.8 Kitchen Exhaust Hood Capture

Range hoods and microwave-range hoods are required to be HVI or AHAM certified and to have a minimum capture efficiency of 50%, as tested in accordance with ASTM E3087.

Add to Section 9 as follows:

...

9.2.3 Indoor Environmental Quality.

All mechanical ventilation system equipment manufacturers' installation and maintenance instructions shall be either attached to the subject equipment or provided to the homeowner. All calculations, tests, and adjustments required by Section 7.3 shall be recorded and provided to the authority having jurisdiction and the homeowner. The contact information of any person performing such calculations, checks, test, or adjustments shall be provided to the occupant.