



ADDENDA

**ANSI/ASHRAE Addendum q to
ANSI/ASHRAE Standard 62.1-2016**

Ventilation for Acceptable Indoor Air Quality

Approved by the ASHRAE Standards Committee on June 23, 2018; by the ASHRAE Board of Directors on June 27, 2018; and by the American National Standards Institute on July 25, 2018.

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FOREWORD

Section 5 and 7 changes are intended to better satisfy the objectives of the requirements already included in the standard and improve the language describing them. The changes differentiate the objectives fostering anticipation for the needs of system measurements with appropriate designs and those of airflow verification.

Section 5.1.1 solicits design attention for duct layout conditions and anything that contributes to making field measurement difficult, prone to high error rates, or sometimes impossible to perform. The new language in Section 5.3.2 is intended to provide a generalized and simpler statement of this requirement's objective and avoid the expression of limited alternatives in subsection items (a) through (c), yet provide designers and building owners the same flexibility and design choices.

Modification of 7.2.2 addresses the operational requirements reflected elsewhere in the standard. "Under any load or dynamic reset condition" must also be considered when verifying the capability of the ventilation system to function as required, particularly at the point of operation where minimum outdoor air control is the most difficult. The new requirement identifies that direct measurement is the only method allowed to verify intake flow rates.

By their exclusion, temperature ratios and differential airflow calculations require many assumptions to provide reliable airflow estimates. This new statement expresses the recommendations expressed in ASHRAE research (RP-980), ASHRAE Standard 111, and all national TAB guidelines that caution or condition use of indirect means of verification. The conclusions of the California Energy Commission's research, expressed in California Title 24 regulations, explicitly ban the use of indirect means of intake airflow verification for code compliance to ventilation minimums.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and

~~striking through~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.

Addendum q to Standard 62.1-2016

Modify 5.1.1 as shown.

5.1.1 Designing for Air Balancing. ~~The~~ Ventilation air distribution systems shall be provided ~~with means to adjust the system to achieve at least the minimum ventilation airflow as required by Section 6 under any load condition.~~ that allow field verification of outdoor air intake flow (V_{ot}) during operation.

5.1.1.1 Designing for Varying Loads and Operating Conditions. The ventilation air distribution system for VAV and multispeed CV applications shall be provided with means to adjust the system to achieve at least the minimum ventilation airflow as required by Section 6 under any load condition or dynamic reset condition.

Modify 5.3.2 as shown.

5.3.2 Systems with fans supplying variable primary air (V_{ps}), ~~including single-zone VAV and multiple-zone recirculating VAV systems,~~ shall be provided ~~with one or more of the following with any combination of control equipment, methods, or devices to maintain no less than the outdoor air intake flow (V_{ot}) required for compliance with Section 5.3.1.~~

- a. ~~Outdoor air intake, return air dampers, or a combination of the two that modulates to maintain not less than the outdoor air intake flow (V_{ot})~~
- b. ~~Outdoor air injection fans that modulate to maintain not less than the outdoor air intake flow (V_{ot})~~
- e. ~~Other means of ensuring compliance with Section 5.3.1~~

Modify 7.2.2 as shown.

7.2.2 Air Balancing and Verification of Outdoor Air Performance. Ventilation systems shall be balanced in accordance with ASHRAE Standard 111¹⁵ or other applicable national standards, for measuring and balancing airflow so as to verify conformance with the total outdoor airflow requirements of this standard (V_{ot}). Conformance shall be confirmed by direct measurement at the minimum design airflow rate (or rates) during normal operation.

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.

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