Ventilation and Acceptable Indoor Air Quality in Low-Rise Residential Buildings

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FOREWORD

The intent of Section 7.2.2, “Demand-Controlled Local Exhaust Fans,” is to require fans to have at least one speed setting meeting the minimum required exhaust airflow rate where the corresponding sone rating is 3 or less. This change clarifies this intent. Currently, the language in this section would permit any fan with a high speed setting exceeding 400 cfm to be exempt from the sone requirement, even if operating on a lower speed setting. For example, a kitchen range hood with speed settings of 100, 200, and 401 cfm is currently not required to meet the sone requirements at any of these settings. Closing this loophole will ensure that occupants that have typical-sized range hoods (i.e., those with at least one speed setting ≤400 cfm) will have at least one speed setting rated ≤3 sone.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and strikethrough (for deletions) unless the instructions specifically mention some other means of indicating the changes.

Addendum p to Standard 62.2-2013

Revise Section 7.2 as shown.

7.2 Sound Ratings for Fans. Ventilation fans shall be rated for sound at no less than the minimum airflow rate required by this standard, as noted below. These sound ratings shall be at a minimum of 0.1 in. wc (25 Pa) static pressure in accordance with the HVI procedures referenced in Section 7.1.

Exception: HVAC air handlers and remote-mounted fans need not meet sound requirements. To be considered for this exception, a remote-mounted fan must be mounted outside the habitable spaces, bathrooms, toilets, and hallways, and there must be at least 4 ft (1.2 m) of ductwork between the fan and the intake grille.

7.2.1 Whole-Building Ventilation or Continuous Local Exhaust Fans. These fans shall be rated for sound at a maximum of 1.0 sone.

7.2.2 Demand-Controlled Local Exhaust Fans. Bathroom exhaust fans used to comply with Section 5.2 shall be rated for sound at a maximum of 3 sone, unless their maximum rated airflow exceeds 400 cfm (200 L/s). Kitchen exhaust fans used to comply with Section 5.2 shall be rated for sound at a maximum of 3 sone at one or more airflow settings greater than or equal to 100 cfm (47 L/s).

Exception: Fans with a minimum airflow setting exceeding 400 cfm (189 L/s) need not comply. HVAC air handlers and remote mounted fans need not meet sound requirements. To be considered for this exception, a remote-mounted fan must be mounted outside the habitable spaces, bathrooms, toilets, and hallways, and there must be at least 4 ft (1.2 m) of ductwork between the fan and the intake grille.
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.