

**INTERPRETATION IC 62.2-2016-6 OF  
ANSI/ASHRAE STANDARD 62.2-2016  
Ventilation and Acceptable Indoor Air Quality in Residential Buildings**

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**Request from:** Gayathri Vijayakumar, Steven Winter Associates, Inc., 61 Washington Street, 2<sup>nd</sup> floor, Norwalk, CT 06854.

**Reference:** This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 62.2-2016, Sections 3, 4 and 6.1, regarding transfer air and outdoor air.

**Background:** Since 2007, Section 4.1 (Ventilation Rate) of ASHRAE Standard 62.2 has stated that “each dwelling unit” is to be provided with “outdoor air” at the rate specified. This rate is understood to be the minimum amount of continuous outdoor air needed to achieve acceptable indoor air quality within a dwelling unit.

Outdoor air has a clear definition in the standard: “air, outdoor: air from outside the building taken into a ventilation system or air from outside the building that enters a space through infiltration or natural ventilation openings.”

Transfer air also has a clear and intentionally separate definition in the standard: “air, transfer: air moved from one occupiable space to another, usually through doorways or grilles.”

Based on the distinctly different definitions and the consistent use of the term “outdoor air” rather than “transfer air” in Section 4.1, the intent of the Standard seems clear that the “outdoor air” must come from outside the building and not from adjacent spaces such as other dwelling units or attached garages. This is also supported in:

- Section 4.1.2 Infiltration Credit, which limits infiltration credit to outdoor air that infiltrates through exterior envelope surface area that is not attached to garages or other dwelling units. No credit is provided for transfer air that infiltrates through common walls.
- Section 6.1, Adjacent Spaces and Transfer Air, which states: “Measures shall be taken to minimize air movement across envelope components to dwelling units from adjacent spaces such as garages, unconditioned crawlspaces, unconditioned attics, and other dwelling units.” This is the only section which mentions transfer air and does so by stating that transfer air from other dwelling units shall be minimized. Section 4.1 sets a minimum requirement for an outdoor air flow rate, with the option of increasing without limit. Since Section 6.1 requires transfer air from adjacent dwelling units to be minimized, it seems logical to conclude that transfer air from adjacent dwelling units (what must be minimized) cannot be counted as outdoor air (which can be maximized).

Even with the text in these sections that implies that outdoor air is needed for acceptable indoor air quality and that transfer air shall be minimized, there is still confusion in the multifamily industry whether exhaust systems, when used in attached dwelling units, are actually in compliance with Section 4.1, since they seem to comply with Section 4.3.

Section 4.3 Airflow Measurement, seems to imply that measuring indoor air exhausted is how one confirms that the outdoor air rate required in Section 4.1 has been provided. However, in attached housing, one cannot assume that the amount of air exhausted from a dwelling unit is equal to the amount of outdoor air entering that same dwelling unit. Often the indoor air

exhausted results in some outdoor air entering the dwelling unit, but also transfer air from adjacent dwelling units or other adjacent spaces (laundry room, trash closets, parking garages, or corridors), regardless of the steps taken to minimize that transfer air. Since the intent of 4.1 and 4.3 seems inconsistent, the industry needs clarification as to whether transfer air taken from adjacent spaces should be considered outdoor air.

Looking beyond ASHRAE 62.2 for context, ASHRAE Standard 62.1-2013, which applied to attached dwelling units in buildings 4 stories and greater, stated that “air from one residential dwelling shall not be recirculated or transferred to any other space outside of that dwelling.” Additionally, the ASHRAE 62.1 committee responded “No” to the following interpretation request in 2016: “An exhaust-only ventilation system is an acceptable system for meeting the outdoor air ventilation requirements of high-rise multifamily dwelling units under ASHRAE Standard 62.1-2010, regardless of whether a dedicated outdoor air inlet is provided or whether the outdoor air flow rate is confirmed at an outdoor air inlet” (62.1-2010-7).

Given the background above, the intent of ASHRAE 62.2 seems clear. However, inconsistency remains in the standard causing confusion in the market, and an interpretation is being officially requested.

**Interpretation:** For attached dwelling units complying with Section 4.1, air from adjacent spaces cannot be credited toward the outdoor air required by Section 4.1.

**Question:** Is this Interpretation correct?

**Answer:** Yes