

**INTERPRETATION IC 62.1-2010-9 OF
ANSI/ASHRAE STANDARD 62.1-2010
VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY**

Approved: November 19, 2020

Request from: Rudolph Carneiro, Optimized Systems, 832 Brightview Dr., Lake Mary, FL 32746.

Reference: This request for interpretation refers to the requirements presented in ANSI/ASHRAE Standard 62.1-2010, Section 5.16.3.2.3, regarding exhausting residential kitchen air through bathrooms.

Background: A doubt has arisen with respect to kitchen air ventilation design where a kitchen is equipped with both an electric stove and a recirculating hood with a charcoal filter. The recirculating hood is not connected to any exhaust ductwork. The kitchen is open to a living room and a corridor. A bathroom door is in the corridor near the kitchen. The bathroom has a 100cfm exhaust fan and an undercut on the bathroom door to allow for air transfer from the kitchen into the bathroom when the fan is activated with the light switch.

Interpretation: This design is in compliance with the standard because:

1. Discharge from non-combustion equipment can be recirculated in accordance with manufacturer recommendations per Section 5.6 which states: "The discharge from non-combustion equipment that captures the contaminants generated by the equipment shall be ducted directly to the outdoors. Exception: Equipment specifically designed for discharge indoors in accordance with the manufacturer's recommendations."
2. Class 2 air (kitchen air) can be transferred to a bathroom to be exhausted out of a building per Section 5.16.3.2.3 which states: "Transfer of Class 2 air to toilet rooms shall be permitted"
3. Since the corridor and living rooms are open to the kitchen, they are collectively considered class 2 air according to Section 5.16.2.3 which states: "Redesignation of Class 1 air to Class 2 air shall be permitted for Class 1 "spaces that are ancillary to Class 2 spaces." Note: For example, an office within a restaurant may be designated as a space ancillary to a Class 2 space thus enabling the office to receive Class 2 air."
4. The definition of exhaust air does not state that air cannot be transferred to a class 2 space or naturally ventilated through an adjacent class 2 space having met natural ventilation requirements: "air removed from a space and discharged to outside the building by means of mechanical or natural ventilation systems".

Question: Is this interpretation correct?

Answer: No

Comments:

1. Yes. The ductless range hood may discharge into the space if allowed by the manufacturer and permitted by local code.

2. Yes. Class 2 air may be transferred to a toilet room.
3. No. The designer is given professional consideration to designate the living room as ancillary to the kitchen, however, the authority having jurisdiction could consider this re-designation to be inappropriate.
4. No. The definition of "air, transfer" is "air moved from one space to another" therefore the air meets this definition and does not qualify as "air, exhaust" which is "air removed from a space and discharged outside the building..."

Overall Interpretation: No.

In addition to the provisions cited in the interpretation request the following provisions of the standard may not be met:

- 2.1 indicates that 62.1 does not apply to low-rise residential structures. It is not clear from the request whether the building is within the scope of 62.1.
- 5.9.2 requires that the make-up air equal or exceed the total exhaust air in most cases. As it is not indicated where the make-up air is supplied from this provision of the standard may not be met.
- 6.5.1 mandates exhaust rates in Table 6-4. The table notes require that the higher rates be used for intermittent operating exhaust; 100 CFM for the kitchen, and 50 CFM for the toilet, for a total of 150 CFM.