ADDENDA

ANSI/ASHRAE Addendum r 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.

This addendum was approved by a Standing Standard Project Committee (SSPC) for which the Standards Committee has established a documented program for regular publication of addenda or revisions, including procedures for timely, documented, consensus action on requests for change to any part of the standard. The change submittal form, instructions, and deadlines may be obtained in electronic form from the ASHRAE website (www.ashrae.org) or in paper form from the Senior Manager of Standards.

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b. participation in the next review of the Standard,
c. offering constructive criticism for improving the Standard, or
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FOREWORD

Addendum r makes several changes to Section 5. For outdoor air intakes, the alternate methods of calculation are specified in Normative Appendix B, and the exception is eliminated. Requirements in the Table 5.5.1 footnotes are relocated to the body of the standard. If condensation is to be managed (Exception 5.14.2), then a management plan must be developed. If "local practice" demonstrates condensation does not grow mold, it can be included in the management plan. Table 5.16.1, "Airstreams or Sources," is relocated to Section 6 where all other air class information resides.

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 r to Standard 62.1-2016

Modify Section 5.5.1 as shown.

5.5.1 Location. Outdoor air intakes (including openings that are required as part of a natural ventilation system) shall be located such that the shortest distance from the intake to any specific potential outdoor contaminant source listed in Table 5.5.1 shall be equal to or greater than

a. the separation distance in Table 5.5.1 or

b. the calculation methods in Normative Appendix B

and shall comply with all other requirements of this section.

~~Exception:~~ ~~Other separation distances shall be permitted, provided it can be shown analytically that an equivalent or lesser rate of introduction of contaminants from outdoor sources will be attained.~~

Add Sections to 5.5.1 as shown.

5.5.1.1 Exhaust/Relief Outlets. Separation criteria for Class 2 and Class 3 exhaust/relief outlets applies to the distance from the outdoor air intakes for one ventilation system to the exhaust outlets and relief outlets for any other ventilation system.

5.5.1.2 Fuel Burning Equipment. The minimum distances relative to fuel-fired appliances shall be as required by ANSI Z223.1/NFPA 54[7] for fuel gas burning appliances and equipment, NFPA 31[8] for oil burning appliances and equipment, and NFPA 211[9] for other combustion appliances and equipment

5.5.1.3 Roof, Landscaped Grade, or Another Surface Directly Below Intake. Where snow accumulation is expected, the surface of the snow at the expected average snow depth shall be considered to be a surface directly below an intake.

Exception to 5.5.1.3: The minimum separation distance in Table 5.5.1 shall not apply where outdoor surfaces below the air intake are sloped more than 45 degrees from horizontal or where such surfaces are less than 1 in. (30 mm) in width.

Modify Table 5.5.1 as shown.

TABLE 5.5.1 Air Intake Minimum Separation Distance

Object	Minimum Distance, ft (m)
Class 2 air exhaust/relief outlet [a]	10 (3)
Class 3 air exhaust/relief outlet [a]	15 (5)
Class 4 air exhaust/relief outlet [b]	30 (10)
Plumbing vents terminating less than 3 ft (1 m) above the level of the outdoor air intake	10 (3)
Plumbing vents terminating at least 3 ft (1 m) above the level of the outdoor air intake	3 (1)
Vents, chimneys, and flues from combustion appliances and equipment [c]	15 (5)
Garage entry, automobile loading area, or drive-in queue [d]	15 (5)
Truck loading area or dock, bus parking/idling area [d]	25 (7.5)
Driveway, street, or parking place [d]	5 (1.5)
Thoroughfare with high traffic volume	25 (7.5)
Roof, landscaped grade, or other surface directly below intake [e,f]	1 (0.30)
Garbage storage/pick-up area, dumpsters	15 (5)
Cooling tower intake or basin	15 (5)
Cooling tower exhaust	25 (7.5)

~~a. This requirement applies to the distance from the outdoor air intakes for one ventilation system to the exhaust outlets and relief outlets for any other ventilation system.~~

~~b. Minimum distance listed does not apply to laboratory fume hood exhaust air outlets. Separation criteria for fume hood exhaust shall be in compliance with ANSI/AIHA Z9.5[6]. Informative Appendix J contains sources of additional information on separation criteria. These include the *ACGIH Industrial Ventilation Manual*[11], *ASHRAE Handbook—HVAC Applications*[12], *ASHRAE Laboratory Design Guide*[13], and NSF/ANSI 49[14].~~

~~c. The minimum distances relative to fuel-fired appliances shall be as required by ANSI Z223.1/NFPA 54[7] for fuel gas burning appliances and equipment, NFPA 31[8] for oil burning appliances and equipment, and NFPA 211[9] for other combustion appliances and equipment.~~

~~d. Distance measured to closest place that vehicle exhaust is likely to be located~~

~~e. The minimum separation distance shall not apply where outdoor surfaces below the air intake are sloped more than 45 degrees from horizontal or where such surfaces are less than 1 in. (30 mm) in width.~~

~~f. Where snow accumulation is expected, the surface of the snow at the expected average snow depth shall be considered to be a surface directly below an intake.~~

Modify Section 5.14.2 as shown.

5.14.2 Condensation on Interior Surfaces. Pipes, ducts, and other surfaces within the building whose surface temperatures are expected to fall below the surrounding dew-point temperature shall be insulated. The insulation system thermal resistance and material characteristics shall prevent condensate from forming on the exposed surface and within the insulating material.

Exceptions:

~~1.~~ Where condensate will wet only surfaces that will be managed to prevent or control mold growth. A management plan must be submitted along with the design specifying design assumptions and limits of the plan. The plan must be provided to the owner.

~~2. Where local practice has demonstrated that condensation does not result in mold growth.~~

Modify Section 5.16.1 as shown.

5.16.1 Classification. Air (return, transfer, or exhaust air) leaving each space or location shall be designated at an expected air-quality classification not less than that shown in Table ~~5.16.1,~~ 6.2.2.1, 6.5.1, or 6.5.2, or as approved by the authority having jurisdiction. Air leaving spaces or locations that are not listed in Table ~~5.16.1,~~ 6.2.2.1, 6.5.1, or 6.5.2 shall be designated with the same classification as air from the most similar space or location listed in terms of occupant activities and building construction.

Exception: Air from spaces where ETS is present. (Classification of air from spaces where ETS is present is not addressed. Spaces that are expected to include ETS do not have a classification listed in Table 6.2.2.1.)

Informative Note: Classifications in Tables ~~5.16.1,~~ 6.2.2.1, ~~and 6.5~~ 6.5.1, and 6.5.2 are based on relative contaminant concentration using the following subjective criteria:

Delete Table 5.16.1 and add Table 6.5.2 as shown.

~~**TABLE 5.16.1 Airstreams or Sources**~~

~~Description~~	~~Air Class~~
~~Diazo printing equipment discharge~~	~~4~~
~~Commercial kitchen grease hoods~~	~~4~~
~~Commercial kitchen hoods other than grease~~	~~3~~
~~Laboratory hoods~~	~~4[a]~~
~~Residential kitchen hoods~~	~~3~~
~~Hydraulic elevator machine room~~	~~2~~

~~a. Air Class 4 unless determined otherwise by the Environmental Health and Safety professional responsible to the owner or to the owner's designee~~

Table 6.5.2 Airstreams or Sources

Description	Air Class
Diazo printing equipment discharge	4
Commercial kitchen grease hoods	4
Commercial kitchen hoods other than grease	3
Laboratory hoods	4
Residential kitchen hoods in transient occupancy	3
Hydraulic elevator machine room	2
Paint spray booths	4
Refrigerating machinery rooms	3

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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