



ADDENDA

**ANSI/ASHRAE Addendum a to
ANSI/ASHRAE Standard 161-2018**

Air Quality within Commercial Aircraft

Approved by the ASHRAE Standards Committee on January 12, 2019; by the ASHRAE Technology Council on January 16, 2019; and by the American National Standards Institute on January 17, 2019.

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ASHRAE Standing Standard Project Committee 161
Cognizant TC: 9.3 (Lead), Transportation Air Conditioning and
4.3 (Co-Cognizant), Ventilation Requirements and Infiltration
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FOREWORD

Addendum a clarifies that the units of measure in Sections 7.1, "Ozone," and 8.17, "Dry Ice," are parts per million by volume and not by weight.

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

Addendum a to Standard 161-2018

Revise Section 7.1 as shown.

7.1 Ozone. The in-flight ozone concentration shall not exceed 0.25 ppm by volume (ppmv) (sea level equivalent) at any time, and the time-weighted average ozone concentration shall not exceed 0.1 ppm_v during any consecutive three-hour period; these ozone limit values are based on the limits in U.S. Federal Aviation Regulations 25.832 and 121.578^{9,10}.

Revise the last paragraph in Section 7.2 as shown. The remainder of Section 7.2 is unchanged.

[. . .]

If in-service testing demonstrates that carbon monoxide (CO) will be an effective chemical marker for oil or hydraulic fluid contamination of the bleed air supply system, and it is selected as the indicator substance, the trigger point for data recording and display shall be set at 9 ppm_v, and an exceedance shall be defined as either (a) a ten-minute time-weighted average concentration at or above 9 ppm_v or (b) a 60 second peak value at or above 50 ppm_v.

Revise Section 8.17 as shown below. The remainder of Section 8.17 is unchanged.

8.17 Dry Ice

Operation The aircraft manufacturer aircraft-specific guidelines for proper packaging and handling of dry ice shall be followed when dry ice is brought on board.

In occupied spaces where dry ice results in elevation of the CO₂ concentration, the total CO₂ concentration shall not exceed 5000 ppm_v (5 minute average).

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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