

# ANSI/ASHRAE/ICC/USGBC/IES Addendum k to ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2020

# Standard for the Design of High-Performance Green Buildings

## Except Low-Rise Residential Buildings

*The Complete Technical Content of the International Green Construction Code®*

Approved by the ASHRAE Standards Committee on September 23, 2022; by the ASHRAE Board of Directors on October 14, 2022; by the International Code Council on September 10, 2022; by the Illuminating Engineering Society on October 24, 2022; by the U.S. Green Building Council on September 19, 2022; and by the American National Standards Institute on November 8, 2022.

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. Instructions for how to submit a change can be found on the ASHRAE® website ([www.ashrae.org/continuous-maintenance](http://www.ashrae.org/continuous-maintenance)).

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**Cognizant TC: 2.8 Building Environmental Impacts and Sustainability**

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ASHRAE obtains consensus through participation of its national and international members, associated societies, and public review.

ASHRAE Standards are prepared by a Project Committee appointed specifically for the purpose of writing the Standard. The Project Committee Chair and Vice-Chair must be members of ASHRAE; while other committee members may or may not be ASHRAE members, all must be technically qualified in the subject area of the Standard. Every effort is made to balance the concerned interests on all Project Committees.

The Senior Manager of Standards of ASHRAE should be contacted for

- a. interpretation of the contents of this Standard,
- b. participation in the next review of the Standard,
- c. offering constructive criticism for improving the Standard, or
- d. permission to reprint portions of the Standard.

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## FOREWORD

*Addendum k enhances building resiliency by improving the ability to adjust ventilation quickly and easily in response to air-quality-related emergency conditions. A requirement is added for a control system that provides a centralized method of either shutting down, minimizing, or maximizing the ventilation supplied to a building in response to conditions such as nearby wildfires or chemical spills (shutdown) or a pandemic (maximize).*

*It is expected that compliance with these requirements will be achieved primarily through the addition of control sequences to electronic control systems. This will require new programming to be added by control system manufacturers, but the added cost should be negligible to end users. Enforcement of this requirement will be accomplished at the plan-checking stage by verifying that the specified control system includes the required capabilities.*

*No requirement similar to the one provided here is known to be part of another building code. However, the requirements are well within the capabilities of modern EMCS systems.*

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

### Addendum k to Standard 189.1-2020

***Add new Section 8.3.1.11 as shown (subsequent sections are renumbered as applicable).***

[ . . . ]

**8.3.1.11 Controls for Temporary Ventilation Override.** A centralized control system shall be provided in new buildings to adjust ventilation rates in the event of air-quality emergencies. The control system shall include a timer-based reset to automatically restore normal operation after a user-adjustable period that shall not exceed seven (7) days. The control system shall allow manual initiation of all of the following control actions:

a. Ventilation shutdown:

1. Closure of outdoor air dampers for all systems equipped with automatic modulating control of the outdoor air dampers.
2. Shutdown of all other systems that provide ventilation.
3. Shutdown of all exhaust systems.

b. Economizer shutdown:

1. Disablement of economizer controls such that systems operate with minimum outdoor air-flow only.

c. Ventilation increase:

1. Opening to maximum of outdoor air dampers for all systems equipped with automatic modulating control of the outdoor air dampers. Dampers shall be permitted to close as needed to prevent damage due to extreme temperature conditions.

**Exceptions to 8.3.1.11:**

1. Health care facilities, including hospitals, nursing facilities, and outpatient facilities.
2. Laboratory and other facilities where differential pressurization must be maintained to comply with health and safety requirements.
3. Buildings without direct digital control (DDC) of HVAC systems and with not more than five (5) independently controlled ventilation and exhaust systems.
4. Ventilation systems serving individual dwelling units.

**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.

### **Standard 189.1 and the International Green Construction Code**

Standard 189.1 serves as the complete technical content of the International Green Construction Code<sup>®</sup> (IgCC). The IgCC creates a regulatory framework for new and existing buildings, establishing minimum green requirements for buildings and complementing voluntary rating systems. For more information, visit [www.iccsafe.org](http://www.iccsafe.org).

### **About ASHRAE**

Founded in 1894, ASHRAE is a global professional society committed to serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration, and their allied fields.

As an industry leader in research, standards writing, publishing, certification, and continuing education, ASHRAE and its members are dedicated to promoting a healthy and sustainable built environment for all, through strategic partnerships with organizations in the HVAC&R community and across related industries.

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