ANSI/ASHRAE/ICC/USGBC/IES Addendum l to
ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2017

Standard for the Design of High-Performance Green Buildings

Except Low-Rise Residential Buildings

The Complete Technical Content of the International Green Construction Code ®

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These addenda were 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 (https://www.ashrae.org/continuous-maintenance).

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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.

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FOREWORD

Energy efficiency of a new building will degrade over time, due to poorly maintained, failing, and improperly controlled equipment. This addendum adds a fault detection and diagnostics (FDD) requirement reduces degradation by detecting existing and future malfunctioning systems and notifying building operators so that actions can be taken to reduce energy consumption. Additionally, FDD systems are being used to drive operational efficiency, make better use of maintenance personnel, and resolve comfort issues.

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 l to Standard 189.1-2017

Add new Section 7.3.5 as shown.

7.3.5 Fault Detection and Diagnostics (FDD). A fault detection and diagnostics (FDD) system shall be installed in new buildings to monitor the performance of the building's HVAC system and detect faults in the system. The FDD system shall

a. include permanently installed devices to monitor HVAC system operation;

b. sample the HVAC system performance not less than once per hour;

c. automatically identify, display, and report system faults;

d. automatically notify service personnel of identified fault conditions;

e. automatically provide prioritized recommendations for fault repair based on analysis of collected data; and

f. be capable of tracking and recording a history of identified faults, from identification through repair completion.

Exception to 7.3.5:

1. Buildings with gross floor area less than 25,000 ft^2 (2500 m^2).
2. Individual tenant spaces with gross floor area less than 10,000 ft^2 (1000 m^2).
3. Dwelling units and hotel/motel guest rooms.
4. Residential buildings with less than 10,000 ft^2 (1000 m^2) of common area.
5. Emergency smoke control systems.

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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