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SPECIAL NOTE

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Compliance with this Standard is voluntary until and unless a legal jurisdiction makes compliance mandatory through legislation.

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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ASHRAE INDUSTRIAL ADVERTISING POLICY ON STANDARDS

ASHRAE Standards and Guidelines are established to assist industry and the public by offering a uniform method of testing for rating purposes, by suggesting safe practices in designing and installing equipment, by providing proper definitions of this equipment, and by providing other information that may serve to guide the industry. The creation of ASHRAE Standards and Guidelines is determined by the need for them, and conformance to them is completely voluntary.

In referring to this Standard or Guideline and in marking of equipment and in advertising, no claim shall be made, either stated or implied, that the product has been approved by ASHRAE.
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 I 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 ft² (2500 m²).

2. Individual tenant spaces with gross floor area less than 10,000 ft² (1000 m²).

3. Dwelling units and hotel/motel guest rooms.

4. Residential buildings with less than 10,000 ft² (1000 m²) of common area.

5. Emergency smoke control systems.
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.