

Public Review Draft

Proposed Addendum I to Standard 189.1-2017

Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings

First Public Review (September 2018)
(Draft Shows Proposed Changes to Current Standard)

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Foreword

Energy efficiency of a new building will degrade over time caused by poorly maintained, failing and improperly controlled equipment. The proposed Fault Detection and Diagnostics (FDD) requirement will reduce that degradation by detecting existing and future malfunctioning systems and notifying building operators so that actions may be taken to reduce energy consumption of the building. Additionally, FDD systems are being utilized 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 ~~striketrough~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes. Only these changes are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed substantive changes.

Addendum I to 189.1-2017

Add Section 7.3.5 as follows:

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:

1. Include permanently installed devices to monitor HVAC system operation;
2. Sample the HVAC system performance not less than once per hour;
3. Automatically identify, display and report system faults;
4. Automatically notify service personnel of identified fault conditions;

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5. Automatically provide prioritized recommendations for fault repair based on analysis of collected data.
6. Be capable of tracking and recording history of identified faults, from identification through repair completion.

Exceptions:

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.