# CHAPTER 210 SMOKE DETECTORS

**661—210.1(100) Definitions.** The following definitions apply to rules 661—210.1(100) through 661—210.5(100):

"Approved" means that the equipment has been approved or listed for a specific use by an independent testing laboratory or organization of national reputation.

"Commercial grade smoke detection system" means a system of smoke detectors in which each detector is listed to Underwriters Laboratory Standard 268, Smoke Detectors for Fire Alarm Systems, or to another standard approved by the state fire marshal. Sensors in a commercial grade smoke detection system shall be located so as to provide coverage at least equivalent to that which would be provided by smoke detectors installed as required in subrule 210.3(11).

"Dual sensor smoke detector" means a smoke detector which contains both an ionization sensor and a photoelectric sensor and which is designed to detect and trigger an alarm in response to smoke detected through either sensing device, or a smoke detector which has at least two sensors and which is listed to Underwriters Laboratory Standard 217, Single and Multiple Station Smoke Alarms, or to another standard approved by the state fire marshal.

[ARC 8550B, IAB 2/24/10, effective 4/1/10]

**661—210.2(100) Scope.** The provisions of this chapter apply to single-family and two-family residences and to townhouses and to all other residential occupancies unless otherwise provided herein or by another provision of law. The provisions of this chapter do not apply to nonresidential occupancies. [ARC 8550B, IAB 2/24/10, effective 4/1/10]

# 661—210.3(100) General requirements.

- **210.3(1)** Approved single-station smoke alarms shall be acceptable in all areas covered by this chapter, unless other fire warning equipment or materials are required by any provision of 661—Chapter 201, 202, or 205 or if a commercial grade smoke detection system has been installed. Any single-station smoke alarm installed on or after April 1, 2010, in compliance with this subrule, including a replacement of an existing alarm, shall be a dual sensor smoke alarm. If sufficient dual sensor smoke alarms have been installed to comply with the requirements of this chapter, additional smoke alarms which may be other than dual sensor alarms may be installed.
- **210.3(2)** Any installation of wiring and equipment shall comply with NFPA 70, National Electrical Code, 2014 edition, and requirements established by the manufacturer of the equipment serviced by the wiring.
- 210.3(3) All devices, combinations of devices, and equipment to be installed in conformity with this chapter shall be approved and used for the purposes for which they are intended. Any smoke alarm installed on or after April 1, 2010, in compliance with this chapter, including a replacement of an existing alarm, shall be a dual sensor smoke alarm. If sufficient dual sensor smoke alarms have been installed to comply with the requirements of this chapter, additional smoke alarms which may be other than dual sensor alarms may be installed.
- **210.3(4)** A combination system, such as a household fire warning system whose components may be used in whole or in part, in common with a nonfire emergency signaling system, such as a burglar alarm system or an intercom system, shall not be permitted or approved, except for one- or two-family dwellings.
- **210.3(5)** All power supplies shall be sufficient to operate the smoke detector alarm for at least four continuous minutes.
- **210.3(6)** Single-station battery-operated or battery backup smoke alarms shall be replaced in accordance with the manufacturer's instructions.

## **210.3(7)** Power source.

a. In new buildings and additions constructed after July 1, 1991, required smoke detectors shall receive their primary power from the building wiring when such wiring is served from a commercial source. Wiring shall be permanent and without a disconnecting switch other than that required for

overcurrent protection. Smoke detectors may be solely battery operated when installed in existing buildings, or in buildings without commercial power, or in buildings which undergo alterations, repairs or additions subject to subrule 210.3(2).

- b. New and replacement smoke detectors installed after May 1, 1993, which receive their primary power from the building wiring shall be equipped with a battery backup.
- c. New and replacement smoke alarms installed after July 1, 2016, which receive their primary power from the building wiring where more than one smoke alarm is required to be installed shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms.
- **210.3(8)** The failure of any nonreliable or short-life component which renders the alarm inoperative shall be readily apparent to the occupant of the sleeping unit without the need for a test. Each smoke alarm shall detect abnormal quantities of smoke that may occur and shall properly operate in the normal environmental condition.
  - **210.3(9)** Equipment shall be installed in accordance with the manufacturer's recommendations.
- **210.3(10)** Installed fire warning equipment shall be mounted so as to be supported independently of its attachment to wires.
  - 210.3(11) All apparatus shall be restored to normal immediately after each alarm or test.
  - **210.3(12)** Smoke alarms shall be located as follows:
- a. On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
  - b. In each room used for sleeping purposes.
- c. In each story within a dwelling unit, including basements but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level. [ARC 7735B, IAB 5/6/09, effective 4/7/09; ARC 8151B, IAB 9/23/09, effective 9/1/09; ARC 8550B, IAB 2/24/10, effective 4/1/10; ARC 2494C, IAB 4/13/16, effective 5/18/16]

### 661—210.4(100) Smoke detectors—notice and certification of installation.

- **210.4(1)** *Notice of installation.* An owner of a rental residential building containing two or more units, who is required by law to install smoke detectors, shall notify the local fire department upon installation of required smoke detectors.
- **210.4(2)** Certification—single-family dwelling units. A person who files for a homestead tax credit pursuant to Iowa Code chapter 425 shall certify that the single-family dwelling unit for which the credit is filed has a smoke detector(s) installed in accordance with subrule 210.3(6) and paragraph 210.3(11) "a," or that such smoke detector(s) will be installed within 30 days of the date of filing for credit.
- **210.4(3)** Reports to fire marshal. Each county or city assessor charged with the responsibility of accepting homestead tax credit applications shall obtain certification of smoke detection on a form acceptable to the state fire marshal, signed by the person making application for credit, and shall file a quarterly report with the fire marshal listing the name and address and stating whether applicant attested to a detector(s) being present at the time of application or that a detector(s) would be installed as required within 30 days.

[ARC 8550B, IAB 2/24/10, effective 4/1/10]

### 661—210.5(100) Smoke detectors—new and existing construction.

- **210.5(1)** *New construction.* All multiple-unit residential buildings and single-family dwellings which are constructed after July 1, 1991, shall include the installation of smoke detectors meeting the requirements of rule 661—210.3(100).
- **210.5(2)** Existing construction. All existing single-family units and multiple-unit residential buildings shall be equipped with smoke detectors as required in paragraph 210.3(11) "a." [ARC 8550B, IAB 2/24/10, effective 4/1/10]

These rules are intended to implement Iowa Code section 100.18.

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