

Smoke Detectors in Residential Occupancies

The following is an excerpt from the 2015 International Property Maintenance Code as amended by the NYS 2017 Uniform Code Supplement.

NOTE: The descriptions for the various residential classifications follow:

§BC310.3 Residential Group R-1. *Transient or temporary housing situations*
Residential Group R-1 occupancies containing *sleeping units* where the occupants are primarily *transient* in nature, including:

Boarding houses (transient) with more than 10 occupants
Congregate living facilities (transient) with more than 10 occupants
Hotels (transient)
Motels (transient)

§BC310.4 Residential Group R-2. *Includes apartment houses with more than three units and motels or hotels offering longer residence*
Residential Group R-2 occupancies containing *sleeping units* or more than two *dwelling units* where the occupants are primarily permanent in nature, including:

Apartment houses
Boarding houses (non-transient) with more than 16 occupants
Congregate living facilities (non-transient) with more than 16 occupants
Convents
Dormitories
Fraternities and sororities
Hotels (non-transient)
Live/work units
Monasteries
Motels (non-transient)
Vacation timeshare properties

§BC310.5 Residential Group R-3. *Includes single and two family homes and smaller group living situations*
Residential Group R-3 occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4 or I, including:

Buildings that do not contain more than two dwelling units
Boarding houses (non-transient) with 16 or fewer occupants
Boarding houses (transient) with 10 or fewer occupants
Care facilities that provide accommodations for five or fewer persons receiving care
Congregate living facilities (non-transient) with 16 or fewer occupants
Congregate living facilities (transient) with 10 or fewer occupants
Lodging houses with five or fewer guest rooms

§BC310.5.1 Care facilities within a dwelling.

Care facilities for five or fewer persons receiving care that are within a single-family dwelling are permitted to comply with the *International Residential Code* provided an *automatic sprinkler system* is installed in accordance with Section BC903.3.1.3 or Section RP2904 of the *International Residential Code*.

§BC310.5.2 Lodging houses.

Owner-occupied *lodging houses* with five or fewer *guest rooms* shall be permitted to be constructed in accordance with the *International Residential Code*.

§BC310.6 Residential Group R-4. *Facilities providing 24 hour care for 5 to 16 persons*

Residential Group R-4 occupancy shall include buildings, structures or portions thereof for more than five but not more than 16 persons, excluding staff, who reside on a 24-hour basis in a supervised residential environment and receive *custodial care*. Buildings of Group R-4 shall be classified as one of the occupancy conditions specified in Section BC310.6.1 or BC310.6.2. This group shall include, but not be limited to, the following:

- Alcohol and drug centers
- Assisted living facilities
- Congregate care facilities
- Group homes*
- Halfway houses
- Residential board and care facilities
- Social rehabilitation facilities

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code.

§BC310.6.1 Condition 1.

This occupancy condition shall include buildings in which all persons receiving custodial care, without any assistance, are capable of responding to an emergency situation to complete building Evacuation.

§BC310.6.2 Condition 2.

This occupancy condition shall include buildings in which there are any persons receiving custodial care who require limited verbal or physical assistance while responding to an emergency situation to complete building evacuation.

The 2015 International Building Code contains a complete list of all occupancy classifications. *§BC* refers to a particular section of that code.

The entire building and energy conservation codes, as well as the 2017 NYS Uniform Code Supplement, are available online:

https://www.dos.ny.gov/DCEA/laws_regs.html

The ICC Codes may be purchased either individually or as a set through the International Code Council website: <http://shop.iccsafe.org/codes>

SPM704: FIRE PROTECTION SYSTEMS**SPM704.1 General.**

Systems, devices and equipment to detect a fire, actuate an alarm, or suppress or control a fire or any combination thereof shall be maintained in an operable condition at all times in accordance with the *International Fire Code*.

SPM704.1.1 Automatic sprinkler systems.

Inspection, testing and maintenance of automatic sprinkler systems shall be in accordance with NFPA 25.

SPM704.1.2 Fire department connection.

Where the fire department connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an *approved* sign mounted on the street front or on the side of the building. Such sign shall have the letters "FDC" not less than 6 inches (152 mm) high and words in letters not less than 2 inches (51 mm) high or an arrow to indicate the location. Such signs shall be subject to the approval of the fire code official.

SPM704.2 Single-and multiple-station smoke alarms.

Single-and multiple-station smoke alarms shall be installed in existing Group I-1 and R occupancies in accordance with Sections PM704.2.1 through PM704.2.3.

SPM704.2.1 Where required.

Existing Group I-1 and R occupancies shall be provided with single-station smoke alarms in accordance with Sections PM704.2.1.1 through PM704.2.1.4. Interconnection and power sources shall be in accordance with Sections PM704.2.2 and PM704.2.3.

Exceptions:

1. Where the code that was in effect at the time of construction required smoke alarms and smoke alarms complying with those requirements are already provided.
2. Where smoke alarms have been installed in occupancies and dwellings that were not required to have them at the time of construction, additional smoke alarms shall not be required provided that the existing smoke alarms comply with requirements that were in effect at the time of installation.
3. Where smoke detectors connected to a fire alarm system have been installed as a substitute for smoke alarms.

SPM704.2.1.1 Group R-1.

Single- or multiple-station smoke alarms shall be installed in all of the following locations in Group R-1:

1. In sleeping areas.
2. In every room in the path of the *means of egress* from the sleeping area to the door leading from the *sleeping unit*.
3. In each story within the *sleeping unit*, including basements. For

sleeping 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.

§PM704.2.1.2 Groups R-2, R-3, R-4 and I-1.

Single- or multiple-station smoke alarms shall be installed and maintained in Groups R-2, R-3, R-4 and I-1 regardless of *occupant load* at all of the following locations:

1. On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.
2. In each room used for sleeping purposes.
3. 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.

§PM704.2.1.3 Installation near cooking appliances.

Smoke alarms shall not be installed in the following locations unless this would prevent placement of a smoke alarm in a location required by Section PM704.2.1.1 or PM704.2.1.2.

1. Ionization smoke alarms shall not be installed less than 20 feet (6096 mm) horizontally from a permanently installed cooking appliance.
2. Ionization smoke alarms with an alarm-silencing switch shall not be installed less than 10 feet (3048 mm) horizontally from a permanently installed cooking appliance.
3. Photoelectric smoke alarms shall not be installed less than 6 feet (1829 mm) horizontally from a permanently installed cooking appliance.

§PM704.2.1.4 Installation near bathrooms.

Smoke alarms shall be installed not less than 3 feet (914 mm) horizontally from the door or opening of a bathroom that contains a bathtub or shower unless this would prevent placement of a smoke alarm required by Section PM704.2.1.1 or PM704.2.1.2.

§PM704.2.2 Interconnection.

Where more than one smoke alarm is required to be installed within an individual *dwelling* or *sleeping unit*, the smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. Physical interconnection of smoke alarms shall not be required where listed wireless alarms are installed and all alarms sound upon activation of one alarm. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.

Exceptions:

1. Interconnection is not required in buildings that are not undergoing *alterations*, repairs or construction of any kind.

2. Smoke alarms in existing areas are not required to be interconnected where *alterations* or repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available that could provide access for interconnection without the removal of interior finishes.

§PM704.2.3 Power source.

Single-station smoke alarms shall receive their primary power from the building wiring provided that such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.

Exceptions:

1. Smoke alarms are permitted to be solely battery operated in existing buildings where no construction is taking place.

2. Smoke alarms are permitted to be solely battery operated in buildings that are not served from a commercial power source.

3. Smoke alarms are permitted to be solely battery operated in existing areas of buildings undergoing *alterations* or repairs that do not result in the removal of interior walls or ceiling finishes exposing the structure, unless there is an attic, crawl space or *basement* available that could provide access for building wiring without the removal of interior finishes.

§PM704.2.4 Smoke detection system.

Smoke detectors listed in accordance with UL 268 and provided as part of the building's fire alarm system shall be an acceptable alternative to single- and multiple-station smoke alarms and shall comply with the following:

1. The fire alarm system shall comply with all applicable requirements in Section FC907 of the *International Fire Code*.

2. Activation of a smoke detector in a dwelling or sleeping unit shall initiate alarm notification in the *dwelling* or *sleeping unit* in accordance with Section FC907.5.2 of the *International Fire Code*.

3. Activation of a smoke detector in a *dwelling* or *sleeping unit* shall not activate alarm notification appliances outside of the *dwelling* or *sleeping unit*, provided that a supervisory signal is generated and monitored in accordance with Section FC907.6.5 of the *International Fire Code*.