



Laws and Codes Relating to Existing Apartment occupancies in the State of Maine

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Who we are and what we do

- Investigations
- Inspections
- Plan review
- Planning and research

Investigations

- Law enforcement
- Investigate fires for origin and cause
- Monitor outdoor pyrotechnics
- Monitor blasting
- Mechanical ride inspections

Inspections

- Inspect buildings licensed by DHHS, Dance halls, Theaters
- Monitor indoor pyrotechnics
- Perform complaint inspections
- Mechanical ride inspections

Plan Review

- Review plans for new public buildings and renovations of public buildings
- Review for ADA compliance
- Review sprinkler plans and licenses
- Inspect mechanical rides
- Inspect motor vehicle racing venues
- Inspect and permit Aboveground storage facilities

The relationship between laws, codes, and standards

- It is critical to understand how laws, codes and standards relate in legal terms
- Law- An act passed by the legislative branch of government that often has a large, encompassing scope.
- Code- A document written by a consensus committee that has a specific focus
- Standard- A document containing specific technical instructions.

The legal "hierarchy" of the code world

- Laws have the highest level of legal "authority"
- Where a law and a code conflict the law will take precedence.
 - Laws may *reference* a code for compliance. When this occurs a code is said to have the "force of law".

The legal "hierarchy" of the code world (continued)

- Codes are subordinate to law.
- Codes must be legally adopted before they can be enforced.
 - Codes are written in legally enforceable language using words such as "shall" in the text of the code.
- Codes are revised every three to five years with changes based upon trends in fire loss and advances in technology.

The legal "hierarchy" of the code world (continued)

- Standards are subordinate to codes
- A standard may not be enforced unless it is required by a law or code.
- Standards are technical documents that cover the installation and maintenance of systems such as sprinkler systems and fire alarm systems.

Laws that relate to apartment buildings in Maine

- Title 25 MRSA, Section 2452: Provides the authority to adopt NFPA 101 *Life Safety Code* and other relevant codes/standards
- Title 25 MRSA, Section 2361: Provides the authority for certain municipal officers to enforce codes and standards adopted by the State of Maine (including building and fire codes).

Laws that relate to apartment buildings in Maine (continued)

- Title 25 MRSA, Section 2464: Covers responsibility for installing and maintaining smoke detectors. (subsection 9 specifically references rental units).
- Title 25 MRSA, Section 2468: Covers the installation of carbon monoxide detectors.

NFPA 101 *Life Safety Code* and apartment buildings

- NFPA 101 *The Life Safety Code*, is the State adopted code for the protection of life in buildings.
- The currently adopted edition is the 2009 edition. The *Life Safety Code* was first adopted in Maine in 1959.
- The *Life Safety Code* applies to both new and existing buildings. Chapter 31 of the current edition covers existing apartment buildings.

What codes and Standards Apply

- NFPA Codes and Standards are effective Statewide
- MUBEC (The building code) only effective in certain Towns

Enforcement of Codes

- Who is the AHJ
- Who can enforce NFPA Codes and Standards
- Who can enforce the Building Code

NFPA 101 *Life Safety Code* and apartment buildings (cont.)

- Contrary to what many people believe buildings are not "grandfathered". Existing buildings must comply with the *existing* chapter of the *Life Safety Code* for the type of occupancy.

How does NFPA 101 define an apartment building?

- An apartment occupancy is: "A building or portion thereof containing three or more dwelling units with independent cooking and bathroom facilities". (NFPA 101, section 3.3.32.3 (2009 edition).
- Rental units with one or two dwelling units would be considered "one-and two family dwellings" covered under Chapter 24 of the *Life Safety Code*.

NFPA 101 Chapter 31

Existing apartment buildings

- Apartment buildings are considered to be "existing" if they were occupied prior to the adoption of the *Life Safety Code* edition currently in force.
- Maine adopted the 2009 edition of NFPA 101 on August 1, 2011.
- Local jurisdictions may have previous (or newer) editions of NFPA 101 adopted.

NFPA 101- Compliance requirements for apartment buildings

- Existing apartment buildings must meet different requirements depending on one of four compliance options:

Option # 1

- Applies to apartment buildings that do not have fire suppression or detection systems installed throughout
- Buildings meeting option # 1 are three (or fewer) stories in height and have ten (or fewer) dwelling units.

Option # 2

- Applies to apartment buildings that are "provided with a complete approved automatic fire detection and notification system in accordance with [section] 31.3.4.4"
- Buildings that comply with option # 2 must have a fire alarm system (not single station smoke alarms) installed throughout

Option # 3

- Applies to apartment buildings provided with fire sprinkler protection in "select areas, as described in [section] 31.3.5.9
- Buildings meeting option # 3 will have sprinkler system protection in: corridors, stairs, and at every dwelling unit door. Living units and other areas will not be sprinkled.

Option # 4

- Applies to apartment buildings that are "protected throughout with an approved automatic fire sprinkler system".
- All required areas (including dwelling units) will be provided with fire sprinkler protection.

Once I have determined the compliance option, how do I proceed?

- After determining the compliance option the next step is to evaluate the means of egress – and- means of escape.
- Means of egress: Refers to the egress route from dwelling units to the outside of the building.
- Means of escape: Refers to required escape routes located within the dwelling unit.

Means of egress

- In most cases at least two means of egress must be available to every dwelling unit.
- Sections 31.2.4.2, 31.2.4.3, 31.2.4.4, and 31.2.4.5 cover the exceptions where a single exit is permitted.

Means of egress components

- Only the following components are permitted to be part of the means of egress:
- Doors that are equipped with approved door hardware
- Interior and exterior stairs
- Existing fire escape stairs
- Existing fire escape ladders
- Exit passageways (corridors)

Corridors

- Required to be ½ hour rated
- Doors required to be 20 minute rated (exception those complying with option 3 or 4)
- Option 3 or 4 required to resist passage of smoke

New Stairs

- 7" maximum rise
- 11" minimum run
- Single family 7 ¾ rise 10" run
- 44" minimum width

Existing Stair

- 8" maximum rise
- 9" minimum run
- 36" minimum width
- Handrails on at least one side

Stair Dimensional Uniformity

- $3/16''$ maximum variation between adjacent treads or risers
- $3/8''$ maximum tolerance in flight of stairs

Handrails

- 34" to 38" above surface of tread
- Both sides of stairs
- Continuously graspable
- Shall return to wall

Guardrails

- Installed when stair or landing is more than 30" above grade
- 42" in height except 36" height on one and two family homes
- Sphere 4" in diameter cannot pass through up to 34" in height

Means of escape

- In every dwelling unit a secondary means of escape from every space (room) within a dwelling unit that is normally occupied is required.
- All spaces (rooms) are considered normally occupied except: kitchens, bathrooms, and rooms used solely for storage.
- EXCEPTION: Apartment buildings protected throughout with sprinkler systems (option # 4) are not required to have a secondary means of escape.

What composes a secondary means of escape?

- A secondary means of escape is a means of escape from every room in the dwelling unit that is separate from the primary means of escape (door) serving the room.
- The secondary means of escape may be a window meeting the requirements for an "egress window".

Do not confuse the means of *egress* with the means of *escape*!

The egress window

- Egress windows are permitted to serve as the secondary means of escape in the dwelling unit if:
- The actual clear window opening measures at least 5.7 square feet in clear opening area with minimum clear opening dimensions of 24 inches in height and 20 inches in width.
- The window is not more than 44 inches off the floor level of the room.

The egress window (continued)

- The window is less than 20 feet above the adjacent grade level on the exterior of the building.
- If the window is more than 20 feet above the adjacent grade level: the window must open onto an exterior balcony –or– must be accessible to fire apparatus as approved by the local fire department.

Egress Window History

- 1961 Code- minimum size 3 sq.ft
- 1970 Code- minimum size 5 sq.ft
- 1976 Code minimum size 5.7 sq.ft

Other egress considerations

- Common path of travel to exits cannot exceed 35 feet in non-sprinkled buildings or 50 feet in sprinkled buildings.
- Dead end corridors cannot exceed 50 feet in length.
- Lighting of the means of egress (ordinary lighting in all buildings) and emergency lighting if four stories or more –or- more than 12 dwelling units (exception: all units have exits that discharge directly outside at grade).

Other egress considerations

- Illuminated exit signs where more than one exit (means of egress) is required and the exit route is not obvious to a person who is unfamiliar with the building.

Protection of vertical openings

- Vertical openings (openings between floor levels) must be protected with construction having at least a 30 minute fire resistive rating.
- Doors opening into stairs between floor levels must be self-closing and positively latching.

Exceptions to enclosures of vertical openings

- EXCEPTIONS:
- Exits stair enclosures have their own fire rating requirements based on the option used for compliance: typically 20 minutes or for options 2,3,4 and 60 minutes for option # 1. (See NFPA 101, sections 31.2.2.1 and 7.1.2.3)
- Some vertical openings are permitted to be unenclosed if the building is sprinkled throughout (see NFPA 101, section 31.3.1.4)

Hazard area protection

- Hazard areas in apartment buildings must be protected.
- Areas that are considered hazard areas:
- Boiler rooms serving more than one unit
- Laundry rooms greater than 100 feet
- Maintenance shops
- Storage areas
- Trash collection rooms

Protection of hazard areas:

- Hazard areas are required to be separated with fire rated construction having a one hour rating
- EXCEPTION: Hazard areas protected with an automatic extinguishing system must be separated from the remainder of the building with smoke partitions capable of resisting the passage of smoke.

Fire Alarms

- Fire Alarm system required in buildings 4 or more stories or more than 11 units is required to have a fire alarm installed in compliance with NFPA 72

Smoke detection

- The installation of smoke detectors must meet Maine Law: Title 25 MRSA, section 2464 and NFPA 101 *Life Safety Code*, section 31.3.4.5
- Buildings equipped with fire alarm systems must have system smoke detection installed in accordance with NFPA 101, section 31.3.4.4.

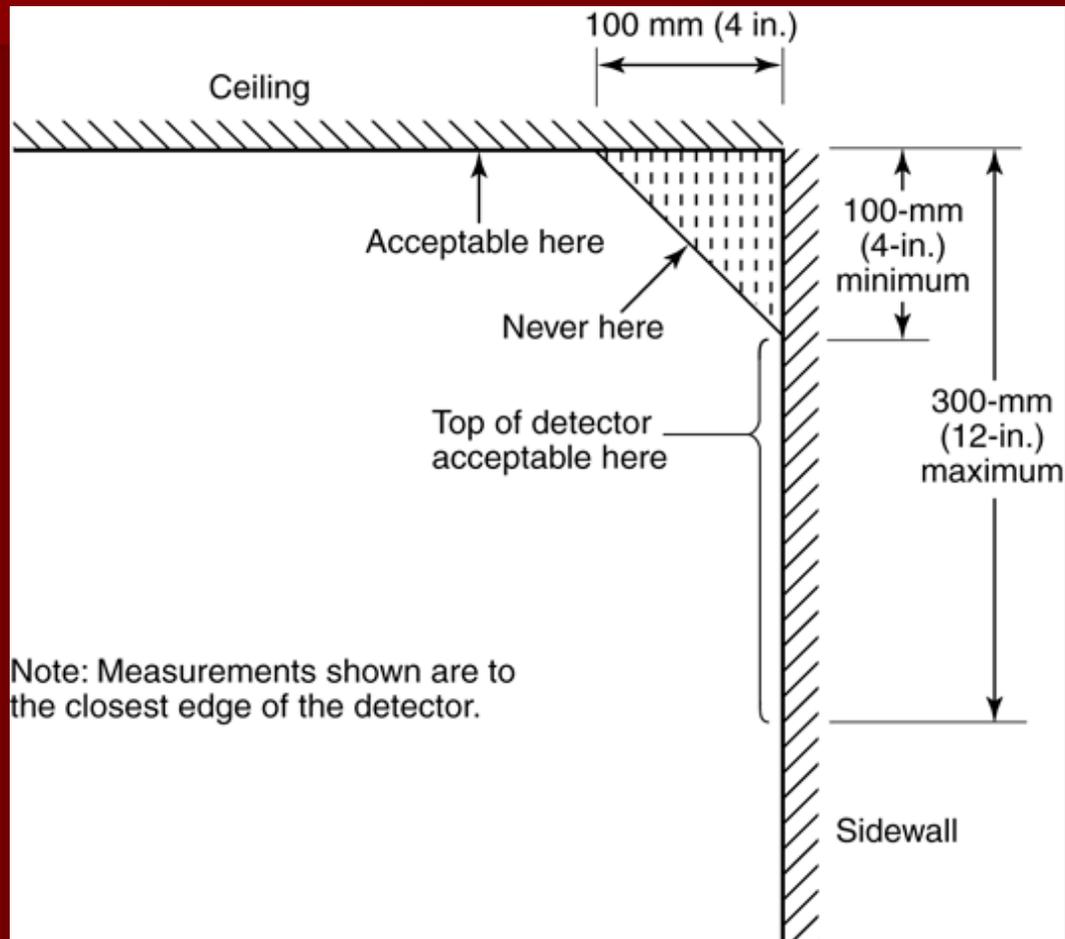
Be sure to install alarms in the following places.

- Install an alarm inside each bedroom and outside each separate sleeping area.
- Install an alarm on each level of the home including the basement.

Avoid putting smoke alarms in the following places

- Kitchens
- Garages
- Bathrooms
- Most attics, unless the local jurisdiction requires them in walk up attics

Smoke alarm installation



Smoke Detector History

- First in code 1976 required near bedroom and hardwired
- 1981 required activation of detector to be audible in bedroom
- 1994 detectors required to be interconnected on each level
- 1997 required in bedrooms outside bedrooms on all levels and interconnected

Carbon Monoxide Detection

- Title 25 sec. 2468
- Installed by manufacturers requirements
- Powered by buildings electrical system and battery backup

Building services (utilities)

- Electrical systems and heating systems must be installed and maintained in accordance with applicable codes and standards.

Building services (utilities)

- For suspected violations involving central heating systems, gas appliances, or electrical systems contact your local code enforcement

OR

Department of Professional & Financial Regulation
35 State House Station
Augusta, Maine 04333
Telephone: (207) 624-8500
Fax: (207) 624-8690

Spray Foam Insulation

- Title 25 section 2447-B
- Occupiable
- Habitable
- Thermal Barriers
- Ignition Barriers



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- Questions and Comments ?
- Contact Main Office 626-3880