

# get2know NFPA Codes

CCFS would like to remind you to check with your local "Authority Having Jurisdiction (AHJ)" for questions and opinions concerning your local Fire and Building Codes. The information contained in this article is supplied as a courtesy by the National Fire Protection Association (NFPA) and is based on the codes and standards promulgated by the NFPA.

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## Get to Know the NFPA 1 Fire Code Chapter 20

*Chapter 20 deals with occupancy fire safety requirements such as evacuation and egress drills.*

### 20.9 Apartment Buildings

The apartment building classification is one of five residential occupancy types addressed by the Life Safety Code. Other residential occupancies include one- and two-family dwellings, lodging or rooming houses, hotels and dormitories, and residential board and care occupancies.

The common principle of life safety that is applied to all residential occupancies are addressed by Chapters 24 through 33 of NFPA 101 which is highlighted by 6.1.8.1, which states that residential occupancies are those occupancies in which sleeping accommodations are provided for purposes other than health care or detention and correction. The presence of sleeping occupants is central to the provisions of Chapters 24 through 33 of NFPA 101, because occupants who are asleep will be unaware of a developing fire and, when awakened to be alerted to the emergency, might be somewhat confused. The definition of the term residential occupancy in 6.1.8.1 also differentiates between sleeping occupants in residential occupancies and those in health care or detention and correctional occupancies, which are also characterized by the occupants' incapability of self-preservation. The provisions of Chapters 24 through 33 of NFPA 101 are also based on the presence of hazards (such as cooking and heating equipment) in residential occupancies and the degree to which occupants are familiar with their living space. Occupants might have little or no familiarity, as in the

case of the transient residents of hotels, or they might have the total familiarity that is common to residents of single-family dwellings.

Apartment buildings pose a problem from a life safety perspective, because the typical building configuration often requires an escaping resident to traverse an interior corridor, which subsequently might expose the resident to the heat and smoke of a corridor or dwelling unit fire. In recognition of these potential hazards, the Code requires most new apartment buildings to be protected throughout by an approved, supervised automatic sprinkler system.

#### 20.9.1 Application.

New and existing apartment buildings shall comply with Section 20.9 and NFPA 101.

*Due to the disproportionate percentage of deaths associated with residential occupancies, the Code, with some exceptions, mandates sprinkler protection in new apartment buildings. For existing apartment buildings, the Code provides four alternative protection packages referred to as options. The options specify the varying degrees to which an apartment building is protected by fire detection or fire suppression systems as follows:*

1. Option 1 — no suppression or detection systems
2. Option 2 — total automatic fire detection and notification (although 31.3.4.5.1 of NFPA 101 requires single station smoke alarms within each apartment unit, such smoke alarms are not part of a system and are not located in all areas of the building; therefore, their presence does not signify an Option 2 apartment building)
3. Option 3 — partial sprinkler protection (mainly corri-

*dor sprinklers — see 31.3.5.9 of NFPA 101)*

4. Option 4 — protection throughout by means of an automatic sprinkler system (see 31.3.5.10 of NFPA 101)

*In recognition of the life safety benefits associated with a properly installed and maintained sprinkler system, an Option 4 apartment building is exempted from the various Code provisions required of Option 1 through Option 3 apartment buildings. The benefits of such exemptions include the following:*

1. Increased travel distance allowances
2. Reduction in required corridor fire resistance ratings
3. Decreased interior finish requirements
4. Exemption from the smoke compartmentation requirement

*This comprehensive approach is an attempt to codify system design. Although a total system would consist of many alternatives, the systems detailed in Options 1 through 4 are more limited, because only four options are available. However, the user can identify the most appropriate option, based on the existing building's size, height, and arrangement. The options provide an opportunity to coordinate the safety approach that best fits a building, rather than adapting a building to a single codified set of criteria.*

## 20.9.2 Operating Features.

### 20.9.2.1 Emergency Instructions for Residents of Apartment Buildings.

Emergency instructions shall be provided annually to each dwelling unit to indicate the location of alarms, egress paths, and actions to be taken, both in response to a fire in the dwelling unit and in response to the sounding of the alarm system.

*The manner in which the information required by 20.9.2.1 is provided to the residents, and the nature of its contents, are at the discretion of the authority having jurisdiction (AHJ) and depend on the building, its layout, and the protection provided. For example, the instructions could be provided to residents when they sign their lease and move into their apartment and every year thereafter when the lease is renewed. The building's arrangement should review the instructions periodically so they can be updated with any needed revisions resulting from changes to the building's configuration or protection systems.*

## REFERENCES THIS MATERIAL CAN BE FOUND IN:

### Commentary Reference

NFPA 1, *Fire Code*, 2009 edition

Commentary comments are in *italic font*

### Code References

NFPA 1, *Uniform Fire Code*, 2009 edition

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