**Chapter 37 Existing Mercantile Occupancies**

37.1 General Requirements

37.1.1 Application

37.1.1.1

The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as mercantile occupancies.

37.1.1.2 Administration

The provisions of Chapter 1, Administration, shall apply.

37.1.1.3 General

The provisions of Chapter 4, General, shall apply.

37.1.1.4

The provisions of this chapter shall apply to life safety requirements for all existing mercantile buildings. Specific requirements shall apply to suboccupancy groups, such as Class A, Class B, and Class C mercantile occupancies; covered malls; and bulk merchandising retail buildings, and are contained in paragraphs pertaining thereto.

37.1.1.5

Additions to existing buildings shall comply with 37.1.1.5.1, 37.1.1.5.2, and 37.1.1.5.3.

37.1.1.5.1

Additions to existing buildings shall conform to the requirements of 4.6.7.

37.1.1.5.2

Existing portions of the structure shall not be required to be modified, provided that the new construction has not diminished the fire safety features of the facility.

37.1.1.5.3

Existing portions shall be upgraded if the addition results in a change of mercantile subclassification. (See 37.1.2.2.)

37.1.1.6

When a change in mercantile occupancy subclassification occurs, either of the following requirements shall be met:

When a mercantile occupancy changes from Class A to Class B or Class C, or from Class B to Class C, the provisions of this chapter shall apply.

When a mercantile occupancy changes from Class C to Class A or Class B, or from Class B to Class A, the provisions of Chapter 36 shall apply.

37.1.2 Classification of Occupancy

37.1.2.1 General

Mercantile occupancies shall include all buildings and structures or parts thereof with occupancy as defined in 6.1.10.

37.1.2.2 Subclassification of Occupancy

37.1.2.2.1

Mercantile occupancies shall be subclassified as follows:

Class A, all mercantile occupancies having an aggregate gross area of more than 30,000 ft2 (2800 m2) or occupying more than three stories for sales purposes

Class B, as follows:

All mercantile occupancies of more than 3000 ft2 (280 m2), but not more than 30,000 ft2 (2800 m2), aggregate gross area and occupying not more than three stories for sales purposes

All mercantile occupancies of not more than 3000 ft2 (280 m2) gross area and occupying two or three stories for sales purposes

Class C, all mercantile occupancies of not more than 3000 ft2 (280 m2) gross area used for sales purposes and occupying one story only, excluding mezzanines

37.1.2.2.2

For the purpose of the classification required in 37.1.2.2.1, the requirements of 37.1.2.2.2.1, 37.1.2.2.2.2, and 37.1.2.2.2.3 shall be met.

37.1.2.2.2.1

The aggregate gross area shall be the total gross area of all floors used for mercantile purposes.

37.1.2.2.2.2

Where a mercantile occupancy is divided into sections, regardless of fire separation, the aggregate gross area shall include the area of all sections used for sales purposes.

37.1.2.2.2.3

Areas of floors not used for sales purposes, such as an area used only for storage and not open to the public, shall not be counted for the purposes of the classifications in 37.1.2.2.1(1), (2), and (3), but means of egress shall be provided for such nonsales areas in accordance with their occupancy, as specified by other chapters of this Code.

37.1.2.2.3

The floor area of a mezzanine, or the aggregate floor area of multiple mezzanines, shall not exceed one-half of the floor area of the room or story in which the mezzanines are located; otherwise, such mezzanine or aggregated mezzanines shall be treated as floors.

37.1.2.2.4

Where a number of tenant spaces under different management are located in the same building, the aggregate gross area for subclassification shall be one of the following:

Where tenant spaces are not separated, the aggregate gross floor area of all such tenant spaces shall be used in determining classification per 37.1.2.2.1.

Where individual tenant spaces are separated by fire barriers with a 1-hour fire resistance rating, each tenant space shall be individually classified.

The tenant spaces in a mall building in accordance with 37.4.4 shall be classified individually.

37.1.3 Multiple Occupancies

37.1.3.1 General

37.1.3.1.1

All multiple occupancies shall be in accordance with 6.1.14 and 37.1.3.

37.1.3.1.2

Where there are differences in the specific requirements in this chapter and provisions for mixed occupancies or separated occupancies as specified in 6.1.14.3 and 6.1.14.4, the requirements of this chapter shall apply.

37.1.3.2 Combined Mercantile Occupancies and Parking Structures

37.1.3.2.1

The fire barrier separating parking structures from a building classified as a mercantile occupancy shall be a fire barrier having a minimum 2-hour fire resistance rating.

37.1.3.2.2

Openings in the fire barrier required by 37.1.3.2.1 shall not be required to be protected with fire protection—rated opening protectives in enclosed parking structures that are protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1), or in open parking structures, provided that all of the following conditions are met:

The openings do not exceed 25 percent of the area of the fire barrier in which they are located.

The openings are used as a public entrance and for associated sidelight functions.

The building containing the mercantile occupancy is protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

\*Means are provided to prevent spilled fuel from accumulating adjacent to the openings and entering the building.

Physical means are provided to prevent vehicles from being parked or driven within 10 ft (3050 mm) of the openings.

The openings are protected as a smoke partition in accordance with Section 8.4, with no minimum fire protection rating required.

37.1.4 Definitions

37.1.4.1 General

For definitions, see Chapter 3, Definitions.

37.1.4.2 Special Definitions

A list of special terms used in this chapter follows:

Anchor Building. See 3.3.36.2.

Bulk Merchandising Retail Building. See 3.3.36.4.

Gross Leasable Area. See 3.3.21.3.

Major Tenant. See 3.3.166.

Mall. See 3.3.167.

Mall Building. See 3.3.36.9.

Open-Air Mercantile Operation. See 3.3.197.

37.1.5 Classification of Hazard of Contents

37.1.5.1

The contents of mercantile occupancies shall be classified in accordance with Section 6.2.

37.1.5.2

Mercantile occupancies classified as high hazard in accordance with Section 6.2 shall meet all of the following additional requirements:

Exits shall be located so that not more than 75 ft (23 m) of travel from any point is needed to reach the nearest exit.

From every point, there shall be not less than two exits accessible by travel in different directions (no common path of travel).

All vertical openings shall be enclosed.

37.1.6 Minimum Construction Requirements

(No special requirements.)

37.1.7 Occupant Load

The occupant load, in number of persons for whom means of egress and other provisions are required, shall be determined on the basis of the occupant load factors of Table 7.3.1.2 that are characteristic of the use of the space, or shall be determined as the maximum probable population of the space under consideration, whichever is greater.

37.2 Means of Egress Requirements

37.2.1 General

37.2.1.1

All means of egress shall be in accordance with Chapter 7 and this chapter.

37.2.1.2

No inside open stairway, inside open escalator, or inside open ramp shall be permitted to serve as a component of the required means of egress system for more than one floor.

37.2.1.3

Where there are two or more floors below the street floor, the same stairway or other exit shall be permitted to serve all floors, but all required exits from such areas shall be independent of any open stairways between the street floor and the floor below it.

37.2.1.4

Where exits from the upper floor also serve as an entrance from a principal street, the upper floor shall be classified as a street floor in accordance with the definition of street floor in 3.3.270 and shall be subject to the requirements of this chapter for street floors.

37.2.1.5

High hazard mercantile occupancies shall be arranged in accordance with 37.1.5.2.

37.2.2 Means of Egress Components

37.2.2.1 Components Permitted

Components of means of egress shall be limited to the types described in 37.2.2.2 through 37.2.2.12.

37.2.2.2 Doors

37.2.2.2.1

Doors complying with 7.2.1 shall be permitted.

37.2.2.2.2\*

Locks complying with 7.2.1.5.5 shall be permitted only on principal entrance/exit doors.

37.2.2.2.3

Elevator lobby exit access door-locking arrangements in accordance with 7.2.1.6.3 shall be permitted.

37.2.2.2.4

The re-entry provisions of 7.2.1.5.8 shall not apply. [See 7.2.1.5.8.2(1).]

37.2.2.2.5

Delayed-egress locks complying with 7.2.1.6.1 shall be permitted.

37.2.2.2.6

Access-controlled egress doors complying with 7.2.1.6.2 shall be permitted in buildings protected throughout by an approved, supervised fire detection system in accordance with Section 9.6 or an approved automatic sprinkler system in accordance with 9.7.1.1(1).

37.2.2.2.7

Horizontal or vertical security grilles or doors complying with 7.2.1.4.1(3) shall be permitted to be used as part of the required means of egress from a tenant space.

37.2.2.2.8

All doors at the foot of stairs from upper floors or at the head of stairs leading to floors below the street floor shall swing in the direction of egress travel.

37.2.2.2.9

Revolving doors complying with 7.2.1.10 shall be permitted.

37.2.2.2.10

In Class C mercantile occupancies, doors shall be permitted to swing inward against the direction of egress travel where such doors serve only the street floor area.

37.2.2.3 Stairs

37.2.2.3.1

Stairs complying with 7.2.2 shall be permitted.

37.2.2.3.2

Spiral stairs complying with 7.2.2.2.3 shall be permitted.

37.2.2.3.3

Winders complying with 7.2.2.2.4 shall be permitted.

37.2.2.4 Smokeproof Enclosures

Smokeproof enclosures complying with 7.2.3 shall be permitted.

37.2.2.5 Horizontal Exits

Horizontal exits complying with 7.2.4 shall be permitted.

37.2.2.6 Ramps

Ramps complying with 7.2.5 shall be permitted.

37.2.2.7 Exit Passageways

37.2.2.7.1

Exit passageways complying with 7.2.6 shall be permitted.

37.2.2.7.2\*

Exit passageways in a mall building shall be permitted to accommodate the following occupant loads independently:

Portion of the occupant load assigned to the exit passageway from only the mall/pedestrian way

Largest occupant load assigned to the exit passageway from a single tenant space

37.2.2.8 Escalators and Moving Walks

Escalators and moving walks complying with 7.2.7 shall be permitted.

37.2.2.9 Fire Escape Stairs

Fire escape stairs complying with 7.2.8 shall be permitted.

37.2.2.10 Fire Escape Ladders

Fire escape ladders complying with 7.2.9 shall be permitted.

37.2.2.11 Alternating Tread Devices

Alternating tread devices complying with 7.2.11 shall be permitted.

37.2.2.12 Areas of Refuge

37.2.2.12.1

Areas of refuge complying with 7.2.12 shall be permitted.

37.2.2.12.2

In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1), two rooms or spaces separated from each other by smoke-resistant partitions in accordance with the definition of area of refuge in 3.3.22 shall not be required.

37.2.3 Capacity of Means of Egress

37.2.3.1

The capacity of means of egress shall be in accordance with Section 7.3.

37.2.3.2

In Class A and Class B mercantile occupancies, street floor exits shall be sufficient for the occupant load of the street floor plus the required capacity of stairs, ramps, escalators, and moving walks discharging through the street floor.

37.2.4 Number of Means of Egress

37.2.4.1

Means of egress shall comply with all of the following, except as otherwise permitted by 37.2.4.2 through 37.2.4.5:

The number of means of egress shall be in accordance with Section 7.4.

Not less than two separate exits shall be provided on every story.

Not less than two separate exits shall be accessible from every part of every story.

37.2.4.2

Exit access as required by 37.2.4.1(3) shall be permitted to include a single exit access path for the distances permitted as common paths of travel by 37.2.5.3.

37.2.4.3

A single means of egress shall be permitted in a Class C mercantile occupancy, provided that the travel distance to the exit or to a mall pedestrian way (see 37.4.4.2) does not exceed 75 ft (23 m).

37.2.4.4

A single means of egress shall be permitted in a Class C mercantile occupancy, provided that the travel distance to the exit or to a mall does not exceed 100 ft (30 m), and the story on which the occupancy is located, and all communicating levels that are traversed to reach the exit or mall, are protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

37.2.4.5

A single means of egress to an exit or to a mall shall be permitted from a mezzanine within any Class A, Class B, or Class C mercantile occupancy, provided that the common path of travel does not exceed 75 ft (23 m), or does not exceed 100 ft (30 m) if protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

37.2.5 Arrangement of Means of Egress

37.2.5.1

Means of egress shall be arranged in accordance with Section 7.5.

37.2.5.2\*

Dead-end corridors shall not exceed 50 ft (15 m).

37.2.5.3\*

Common paths of travel shall be limited in accordance with 37.2.5.3.1 or 37.2.5.3.2.

37.2.5.3.1

In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1), common paths of travel shall not exceed 100 ft (30 m).

37.2.5.3.2

In buildings not complying with 37.2.5.3.1, common paths of travel shall not exceed 75 ft (23 m).

37.2.5.4

Aisles leading to each exit shall be required, and the aggregate width of such aisles shall be not less than the required width of the exit.

37.2.5.5

Required aisles shall be not less than 28 in. (710 mm) in clear width.

37.2.5.6

In Class A mercantile occupancies, not less than one aisle of a 60 in. (1525 mm) minimum clear width shall lead directly to an exit.

37.2.5.7

In mercantile occupancies other than bulk merchandising retail buildings, if the only means of customer entrance is through one exterior wall of the building, one-half of the required egress width from the street floor shall be located in such wall. Means of egress from floors above or below the street floor shall be arranged in accordance with Section 7.5.

37.2.5.8

Not less than one-half of the required exits shall be located so as to be reached without passing through checkout stands.

37.2.5.9

Checkout stands or associated railings or barriers shall not obstruct exits, required aisles, or approaches thereto.

37.2.5.10\*

Where wheeled carts or buggies are used by customers, adequate provision shall be made for the transit and parking of such carts to minimize the possibility that they might obstruct means of egress.

37.2.5.11

Exit access in Class A mercantile occupancies that are protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1), and exit access in all Class B and Class C mercantile occupancies, shall be permitted to pass through storerooms, provided that all of the following conditions are met:

Not more than 50 percent of exit access shall be provided through the storeroom.

The storeroom shall not be subject to locking.

The main aisle through the storeroom shall be not less than 44 in. (1120 mm) wide.

The path of travel through the storeroom shall be defined, direct, and continuously maintained in an unobstructed condition.

37.2.6 Travel Distance to Exits

Travel distance shall be as specified in 37.2.6.1 and 37.2.6.2 and shall be measured in accordance with Section 7.6.

37.2.6.1

In buildings protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1), travel distance shall not exceed 250 ft (76 m).

37.2.6.2

In buildings not complying with 37.2.6.1, the travel distance shall not exceed 150 ft (46 m).

37.2.7 Discharge From Exits

37.2.7.1

Exit discharge shall comply with Section 7.7 and 37.2.7.2.

37.2.7.2\*

Fifty percent of the exits shall be permitted to discharge through the level of exit discharge in accordance with 7.7.2 only where the building is protected throughout by an approved automatic sprinkler system in accordance with 9.7.1.1(1).

37.2.8 Illumination of Means of Egress

Means of egress shall be illuminated in accordance with Section 7.8.

37.2.9 Emergency Lighting

Class A and Class B mercantile occupancies and mall buildings shall have emergency lighting facilities in accordance with Section 7.9.

37.2.10 Marking of Means of Egress

Where an exit is not immediately apparent from all portions of the sales area, means of egress shall have signs in accordance with Section 7.10.

37.2.11 Special Means of Egress Features

37.2.11.1 Reserved

37.2.11.2 Lockups

Lockups in mercantile occupancies, other than approved existing lockups, shall comply with the requirements of 23.4.5.

37.3 Protection

37.3.1 Protection of Vertical Openings

Any vertical opening shall be protected in accordance with Section 8.6, except under any of the following conditions:

In Class A or Class B mercantile occupancies protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1), unprotected vertical openings shall be permitted at one of the following locations:

Between any two floors

Among the street floor, the first adjacent floor below, and the adjacent floor (or mezzanine) above

In Class C mercantile occupancies, unprotected openings shall be permitted between the street floor and the mezzanine.

The draft stop and closely spaced sprinkler requirements of NFPA 13, Standard for the Installation of Sprinkler Systems, shall not be required for unenclosed vertical openings permitted in 37.3.1(1) and (2).

37.3.2 Protection From Hazards

37.3.2.1\* General

Hazardous areas shall be protected in accordance with 37.3.2.1.1 or 37.3.2.1.2.

37.3.2.1.1\*

Hazardous areas shall be protected in accordance with Section 8.7.

37.3.2.1.2

In general storage and stock areas protected by an automatic extinguishing system in accordance with 9.7.1.1(1) or 9.7.1.2, an enclosure shall be exempt from the provisions of 8.7.1.2.

37.3.2.2\* High Hazard Contents Areas

High hazard contents areas, as classified in Section 6.2, shall meet all of the following criteria:

The area shall be separated from other parts of the building by fire barriers having a minimum 1-hour fire resistance rating, with all openings therein protected by self-closing fire door assemblies having a minimum 3/4-hour fire protection rating.

The area shall be protected by an automatic extinguishing system in accordance with 9.7.1.1(1) or 9.7.1.2.

37.3.2.3 Cooking Equipment

Cooking equipment shall be protected in accordance with 9.2.3, unless the cooking equipment is one of the following types:

Outdoor equipment

Portable equipment not flue-connected

Equipment used only for food warming

37.3.3 Interior Finish

37.3.3.1 General

Interior finish shall be in accordance with Section 10.2.

37.3.3.2 Interior Wall and Ceiling Finish

Interior wall and ceiling finish materials complying with Section 10.2 shall be Class A, Class B, or Class C.

37.3.3.3 Interior Floor Finish

(No requirements.)

37.3.4 Detection, Alarm, and Communications Systems

37.3.4.1 General

Class A mercantile occupancies shall be provided with a fire alarm system in accordance with Section 9.6.

37.3.4.2 Initiation

Initiation of the required fire alarm system shall be by one of the following means:

Manual means per 9.6.2.1(1)

Approved automatic fire detection system that complies with 9.6.2.1(2) and provides protection throughout the building, plus a minimum of one manual fire alarm box in accordance with 9.6.2.6

Approved automatic sprinkler system that complies with 9.6.2.1(3) and provides protection throughout the building, plus a minimum of one manual fire alarm box in accordance with 9.6.2.6

37.3.4.3 Notification

37.3.4.3.1 Occupant Notification

During all times that the mercantile occupancy is occupied, the required fire alarm system, once initiated, shall perform one of the following functions:

It shall activate an alarm in accordance with 9.6.3 throughout the mercantile occupancy, and both of the following also shall apply:

Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.

A presignal system in accordance with 9.6.3.3 shall be permitted.

Occupant notification shall be made via a voice communication or public address system in accordance with 9.6.3.9.2

37.3.4.3.2 Emergency Forces Notification

Emergency forces notification shall be provided and shall include notifying both of the following:

Fire department in accordance with 9.6.4

Local emergency organization, if provided

37.3.5 Extinguishment Requirements

37.3.5.1

Mercantile occupancies, other than one-story buildings that meet the requirements of a street floor, as defined in 3.3.270, shall be protected by an approved automatic sprinkler system in accordance with 9.7.1.1(1) in any of the following specified locations:

Throughout all mercantile occupancies with a story over 15,000 ft2 (1400 m2) in area

Throughout all mercantile occupancies exceeding 30,000 ft2 (2800 m2) in gross area

Throughout stories below the level of exit discharge where such stories have an area exceeding 2500 ft2 (232 m2) and are used for the sale, storage, or handling of combustible goods and merchandise

Throughout multiple occupancies protected as mixed occupancies in accordance with 6.1.14 where the conditions of 37.3.5.1(1), (2), or (3) apply to the mercantile occupancy

37.3.5.2 Reserved

37.3.5.3

Portable fire extinguishers shall be provided in all mercantile occupancies in accordance with 9.7.4.1.

37.3.6 Corridors

(No requirements.)

37.3.7 Subdivision of Building Spaces

(No special requirements.)

37.4 Special Provisions

37.4.1 Limited Access or Underground Buildings

See Section 11.7.

37.4.2 High-Rise Buildings

(No additional requirements.)

37.4.3 Open-Air Mercantile Operations

37.4.3.1

Open-air mercantile operations, such as open-air markets, gasoline filling stations, roadside stands for the sale of farm produce, and other outdoor mercantile operations, shall be arranged and conducted to maintain free and unobstructed ways of travel at all times.

37.4.3.2

Ways of travel shall allow prompt escape from any point of danger in case of fire or other emergency, with no dead ends in which persons might be trapped due to display stands, adjoining buildings, fences, vehicles, or other obstructions.

37.4.3.3

Mercantile operations that are conducted in roofed-over areas shall be treated as mercantile buildings, provided that canopies over individual small stands to protect merchandise from the weather are not construed as constituting buildings for the purpose of this Code.

37.4.4 Mall Buildings

The provisions of 37.4.4 shall apply to mall buildings and any number of anchor buildings. (See 3.3.36.9.)

37.4.4.1 General

The mall building shall be treated as a single building for the purpose of calculation of means of egress and shall be subject to the requirements for appropriate occupancies, except as modified by the provisions of 37.4.4; and the mall shall be of a clear width not less than that needed to accommodate egress requirements as set forth in other sections of this Code.

37.4.4.2 Pedestrian Way

The mall shall be permitted to be considered a pedestrian way, provided that the criteria of 37.4.4.2.1 and 37.4.4.2.2 are met.

37.4.4.2.1

The travel distance within a tenant space to an exit or to the mall shall not exceed the maximum travel distance permitted by the occupancy chapter.

37.4.4.2.2

An additional 200 ft (61 m) shall be permitted for travel through the mall space, provided that all the following requirements are met:

The mall shall be of a clear width not less than that needed to accommodate egress requirements, as set forth in other sections of this chapter, but shall be not less than 20 ft (6100 mm) wide in its narrowest dimension.

On each side of the mall floor area, the mall shall be provided with an unobstructed exit access of not less than 10 ft (3050 mm) in clear width parallel to, and adjacent to, the mall tenant front.

\*The exit access specified in 37.4.4.2.2(2) shall lead to an exit having a width of not less than 66 in. (1675 mm).

The mall, and all buildings connected thereto, except open parking structures, shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1).

Walls dividing tenant spaces from each other shall extend from the floor to the underside of the roof deck, to the floor deck above, or to the ceiling where the ceiling is constructed to limit the transfer of smoke, and all of the following also shall apply:

Where the tenant areas are provided with an engineered smoke control system, walls shall not be required to divide tenant spaces from each other.

No separation shall be required between a tenant space and the mall.

\*Malls with a floor opening connecting more than two levels shall be provided with a smoke control system.

37.4.4.3 Means of Egress Details

37.4.4.3.1

Dead ends not exceeding a length equal to twice the width of the mall, measured at the narrowest location within the dead-end portion of the mall, shall be permitted.

37.4.4.3.2

Every story of a covered mall building shall be provided with the number of means of egress specified by Section 7.4 and as modified by 37.4.4.3.2.1 or 37.4.4.3.2.2.

37.4.4.3.2.1

Exit access travel shall be permitted to be common for the distances permitted as common paths of travel by 37.2.5.3.

37.4.4.3.2.2

A single means of egress shall be permitted in a Class C mercantile occupancy or a business occupancy, provided that the travel distance to the exit or to a mall pedestrian way (see 37.4.4.2) does not exceed 100 ft (30 m).

37.4.4.3.3

Every floor of a mall shall be provided with the number of means of egress specified by Section 7.4, with not less than two means of egress remotely located from each other.

37.4.4.3.4

Class A and Class B mercantile occupancies connected to a mall shall be provided with the number of means of egress required by Section 7.4, with not less than two means of egress remotely located from one another.

37.4.4.3.5\*

Each individual anchor building shall have means of egress independent of the mall.

37.4.4.3.6

Each individual major tenant of a mall building shall have a minimum of one-half of its required means of egress independent of the mall.

37.4.4.3.7

Every mall shall be provided with unobstructed exit access parallel to, and adjacent to, the mall tenant fronts and extending to each mall exit.

37.4.4.3.8 Reserved

37.4.4.3.9

Emergency lighting shall be provided in accordance with 37.2.9.

37.4.4.4 Detection, Alarm, and Communications Systems

37.4.4.4.1 General

Malls shall be provided with a fire alarm system in accordance with Section 9.6.

37.4.4.4.2 Initiation

Initiation of the required fire alarm system shall be by means of the required automatic sprinkler system in accordance with 9.6.2.1(3).

37.4.4.4.3 Notification

37.4.4.4.3.1 Occupant Notification

During all times that the mall is occupied, the required fire alarm system, once initiated, shall perform one of the following functions:

It shall activate an alarm in accordance with 9.6.3 throughout the mall, and positive alarm sequence in accordance with 9.6.3.4 shall be permitted.

Occupant notification shall be permitted to be made via a voice communication or public address system in accordance with 9.6.3.9.2.

37.4.4.4.3.2 (See 9.63.5.3.)

37.4.4.4.3.3 Emergency Forces Notification

Emergency forces notification shall be provided and shall include notifying all of the following:

Fire department in accordance with 9.6.4

Local emergency organization, if provided

37.4.4.4.4 Emergency Control

The fire alarm system shall be arranged to automatically actuate smoke management or smoke control systems in accordance with 9.6.5.2(3).

37.4.4.5 Tenant Spaces

Each individual tenant space shall have means of egress to the outside or to the mall based on occupant load calculated by using Table 7.3.1.2.

37.4.4.6 Exit Passageways

Exit passageways shall comply with 37.4.4.6.1 and 37.4.4.6.2.

37.4.4.6.1

Exit passageways in a mall building shall be permitted to accommodate the following occupant loads independently:

Portion of the occupant load assigned to the exit passageway from only the mall

Largest occupant load assigned to the exit passageway from a single tenant space

37.4.4.6.2\*

Rooms housing building service equipment, janitor closets, and service elevators shall be permitted to open directly onto exit passageways, provided that all of the following criteria are met:

The required fire resistance rating between such rooms or areas and the exit passageway shall be maintained in accordance with 7.1.3.2.

Such rooms or areas shall be protected by an approved automatic sprinkler system in accordance with 9.7.1.1(1), but the exceptions in NFPA 13, Standard for the Installation of Sprinkler Systems, allowing the omission of sprinklers from such rooms shall not be permitted.

Service elevators opening into the exit passageway shall not open into areas other than exit passageways.

Where exit stair enclosures discharge into the exit passageway, the provisions of 7.2.1.5.8 shall apply, regardless of the number of stories served.

37.4.4.7 Plastic Signs

Within every store or level, and from sidewall to sidewall of each tenant space facing the mall, plastic signs shall comply with all of the following:

Plastic signs shall not exceed 20 percent of the wall area facing the mall.

Plastic signs shall not exceed a height of 36 in. (915 mm), except if the sign is vertical, in which case the height shall not exceed 8 ft (2440 mm) and the width shall not exceed 36 in. (915 mm).

Plastic signs shall be located a minimum distance of 18 in. (455 mm) from adjacent tenants.

Plastics, other than foamed plastics, shall meet one of the following criteria:

They shall be light-transmitting plastics.

They shall have a self-ignition temperature of 650°F (343°C) or greater when tested in accordance with ASTM D 1929, Standard Test Method for Determining Ignition Temperatures of Plastic, and a flame spread index not greater than 75 and a smoke developed index not greater than 450 when tested in the manner intended for use in accordance with ASTM E 84, Standard Test Method for Surface Burning Characteristics of Building Materials, or ANSI/UL 723, Standard for Test for Surface Burning Characteristics of Building Materials.

The edges and backs of plastic signs in the mall shall be fully encased in metal.

Foamed plastics shall have a maximum heat release rate of 150 kW when tested in accordance with ANSI/UL 1975, Standard for Fire Tests for Foamed Plastics Used for Decorative Purposes, or in accordance with NFPA 289, Standard Method of Fire Test for Individual Fuel Packages, using the 20 kW ignition source.

Foamed plastics shall comply with all of the following:

The density of foamed plastic signs shall be not less than 20 lb/ft3 (320 kg/m3).

The thickness of foamed plastic signs shall be not greater than 1/2 in. (13 mm).

37.4.4.8 Kiosks

Kiosks and similar structures (temporary or permanent) shall not be considered as tenant spaces and shall meet all of the following requirements:

Combustible kiosks and similar structures shall be constructed of any of the following materials:

Fire-retardant-treated wood complying with the requirements for fire-retardant-impregnated wood in NFPA 703, Standard for Fire Retardant—Treated Wood and Fire-Retardant Coatings for Building Materials

Light-transmitting plastics complying with the building code

Foamed plastics having a maximum heat release rate not greater than 100 kW when tested in accordance with ANSI/UL 1975, Standard for Fire Tests for Foamed Plastics Used for Decorative Purposes, or in accordance with NFPA 289, Standard Method of Fire Test for Individual Fuel Packages, using the 20 kW ignition source

Metal composite material (MCM) having a flame spread index not greater than 25 and a smoke developed index not greater than 450 in accordance with ASTM E 84, Standard Test Method for Surface Burning Characteristics of Building Materials, or ANSI/UL 723, Standard for Test for Surface Burning Characteristics of Building Materials, when tested as an assembly in the maximum thickness intended for use

Textiles and films meeting the flame propagation performance criteria contained in NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films

Kiosks or similar structures located within the mall shall be protected with approved fire suppression and detection devices.

The minimum horizontal separation between kiosks, or groups of kiosks, and other structures within the mall shall be 20 ft (6100 mm).

Each kiosk, or group of kiosks, or similar structure shall have a maximum area of 300 ft2 (27.8 m2).

37.4.5 Bulk Merchandising Retail Buildings

Existing bulk merchandising retail buildings exceeding 15,000 ft2 (1400 m2) in area shall comply with the requirements of this chapter, as modified by 37.4.5.1 through 37.4.5.6.2.

37.4.5.1 Minimum Construction Requirements

(No requirements.)

37.4.5.2 Means of Egress Requirements

37.4.5.2.1

All means of egress shall be in accordance with Chapter 7 and this chapter.

37.4.5.2.2

Not less than 50 percent of the required egress capacity shall be located independent of the main entrance/exit doors.

37.4.5.3 Storage, Arrangement, Protection, and Quantities of Hazardous Commodities

The storage, arrangement, protection, and quantities of hazardous commodities shall be in accordance with the applicable provisions of the following:

The fire code (see 3.3.94)

NFPA 13, Standard for the Installation of Sprinkler Systems

NFPA 30, Flammable and Combustible Liquids Code

NFPA 30B, Code for the Manufacture and Storage of Aerosol Products

NFPA 400, Hazardous Materials Code, Chapter 14, for organic peroxide formulations

NFPA 400, Hazardous Materials Code, Chapter 15, for oxidizer solids and liquids

NFPA 400, Hazardous Materials Code, various chapters, depending on characteristics of a particular pesticide

NFPA 1124, Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles

37.4.5.4 Detection, Alarm, and Communications Systems

37.4.5.4.1 General

Bulk merchandising retail buildings shall be provided with a fire alarm system in accordance with Section 9.6.

37.4.5.4.2 Initiation

Initiation of the required fire alarm system shall be by means of the required approved automatic sprinkler system (see 37.4.5.5) in accordance with 9.6.2.1(3).

37.4.5.4.3 Occupant Notification

During all times that the mercantile occupancy is occupied, the required fire alarm system, once initiated, shall perform one of the following functions:

It shall activate an alarm in accordance with 9.6.3 throughout the mercantile occupancy, and positive alarm sequence in accordance with 9.6.3.4 shall be permitted.

Occupant notification shall be permitted to be made via a voice communication or public address system in accordance with 9.6.3.9.2.

37.4.5.4.4 Emergency Forces Notification

Emergency forces notification shall be provided and shall include notifying both of the following:

Fire department in accordance with 9.6.4

Local emergency organization, if provided

37.4.5.5 Extinguishing Requirements

Bulk merchandising retail buildings shall be protected throughout by an approved, supervised automatic sprinkler system in accordance with 9.7.1.1(1) and the applicable provisions of the following:

The fire code (see 3.3.94)

NFPA 13, Standard for the Installation of Sprinkler Systems

NFPA 30, Flammable and Combustible Liquids Code

NFPA 30B, Code for the Manufacture and Storage of Aerosol Products

37.4.5.6 Emergency Plan and Employee Training

37.4.5.6.1

There shall be in effect an approved written plan for the emergency egress and relocation of occupants.

37.4.5.6.2

All employees shall be instructed and periodically drilled with respect to their duties under the plan.

37.4.6 Retail Sales of Consumer Fireworks, 1.4G

Mercantile occupancies in which the retail sale of consumer fireworks, 1.4G, is conducted, other than approved existing facilities, shall comply with NFPA 1124, Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles.

37.5 Building Services

37.5.1 Utilities

Utilities shall comply with the provisions of Section 9.1.

37.5.2 Heating, Ventilating, and Air-Conditioning

Heating, ventilating, and air-conditioning equipment shall comply with the provisions of Section 9.2.

37.5.3 Elevators, Escalators, and Conveyors

Elevators, escalators, and conveyors shall comply with the provisions of Section 9.4.

37.5.4 Rubbish Chutes, Incinerators, and Laundry Chutes

Rubbish chutes, incinerators, and laundry chutes shall comply with the provisions of Section 9.5.

37.6 Reserved

37.7 Operating Features

37.7.1 Emergency Plans

Emergency plans complying with Section 4.8 shall be provided in high-rise buildings.

37.7.2 Drills

In every Class A or Class B mercantile occupancy, employees shall be periodically trained in accordance with Section 4.7.

37.7.3 Extinguisher Training

Employees of mercantile occupancies shall be periodically instructed in the use of portable fire extinguishers.

37.7.4 Food Service Operations

Food service operations shall comply with 13.7.2.

37.7.5 Upholstered Furniture and Mattresses

The provisions of 10.3.2 shall not apply to upholstered furniture and mattresses.

37.7.6 Soiled Linen and Trash Receptacles

The requirements of 10.3.9 for containers for rubbish, waste, or linen with a capacity of 20 gal (75.7 L) or more shall not apply.