SECOND PRINTING (Posted April 6, 2010)

CHAPTER 1 SCOPE AND ADMINISTRATION

102.7 Referenced codes and standards. The codes and standards referenced in this code shall be those that are listed in Chapter 45 47 and such codes and standards shall be considered part of the requirements of this code to the prescribed extent of each such reference. Where differences occur between the provisions of this code and the referenced standards, the provisions of this code shall apply.

107.2.1 Test and inspection records. Required test and inspection records shall be available to the *fire code official* at all times or such records as the *fire code official* designates shall be filed with the *fire code official*.

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CHAPTER 5 FIRE SERVICE FEATURES

504.3 Stairway access to roof. New buildings four or more stories above grade plane, except those with a roof slope greater than four units vertical in 12 units horizontal (33.3-percent slope), shall be provided with a *stairway* to the roof. *Stairway* access to the roof shall be in accordance with Section 1009.12 1009.13. Such *stairway* shall be marked at street and floor levels with a sign indicating that the *stairway* continues to the roof. Where roofs are used for roof gardens or for other purposes, *stairways* shall be provided as required for such occupancy classification.

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CHAPTER 6 BUILDING SERVICES AND SYSTEMS

[B] 607.2 Emergency signs. An *approved* pictorial sign of a standardized design shall be posted adjacent to each elevator call station on all floors instructing occupants to use the *exit stairways* and not to use the elevators in case of fire. The sign shall read: IN FIRE EMERGENCY, DO NOT USE ELEVATOR. USE EXIT STAIRS.

- <u>1.</u> The emergency sign shall not be required for elevators that are part of an accessible *means of egress* complying with Section 1007.4.
- 2. The emergency sign shall not be required for elevators that are used for occupant self-evacuation in accordance with Section 3008 of the *International Building Code*.

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CHAPTER 8 INTERIOR FINISH, DECORATIVE MATERIALS AND FURNISHINGS

- **807.1 General requirements.** In occupancies in Groups A, E, I and R-1 and dormitories in Group R-2, curtains, draperies, hangings and other decorative materials suspended from walls or ceilings shall meet the flame propagation performance criteria of NFPA 701 in accordance with Section 806.2 807.2 or be noncombustible.
- **808.1 Wastebaskets and linen containers in Group I-2 and I-3 occupancies.** Wastebaskets, linen containers and other waste containers, including their lids, located in Group I-2 and I-3 occupancies shall be constructed of noncombustible materials or of materials that meet a peak rate of heat release not exceeding 300 kW/m² when tested in accordance with ASTM E 1354 at an incident heat flux of 50 kW/m² in the horizontal orientation. Metal wastebaskets and other metal waste containers with a capacity of 20 gallons (75.7 L) or more shall be *listed* in accordance with UL 1315 and shall be provided with a noncombustible lid. Portable containers exceeding 32 gallons (121 L) shall be stored in an area classified as a waste and linen collection room and constructed in accordance with Table 508.2 508.2.5 of the *International Building Code*.

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CHAPTER 9 FIRE PROTECTION SYSTEMS

- **907.4.2 Delayed egress locks.** Where delayed egress locks are installed on *means of egress* doors in accordance with Section 1008.1.8.6 1008.1.9.7, an automatic smoke or heat detection system shall be installed as required by that section.
- **907.5 Initiating devices.** Where manual or automatic alarm initiation is required as part of a fire alarm system, the initiating devices shall be installed in accordance with Sections 907.5.1 through 907.5.3 907.5.3.1.
- **910.4.4 Wiring and control.** Wiring for operation and control of smoke exhaust fans shall be connected ahead of the main disconnect and protected against exposure to temperatures in excess of 1,000°F (538°C) for a period of not less than 15 minutes. Controls shall be located so as to be immediately accessible to the fire service from the exterior of the building and protected against interior fire exposure by not less than 1-hour *fire barriers* constructed in accordance with Section 707<u>of the *International Building Code*</u> or *horizontal assemblies* constructed in accordance with Section 712 of the *International Building Code*, or both.
- **909.11 Power systems.** The smoke control system shall be supplied with two sources of power. Primary power shall be from the normal building power systems. Secondary power shall be from an *approved* standby source complying with Section 604 and NFPA 70. The standby power source and its transfer switches shall be in a room separate from the normal power transformers and switch gears and ventilated directly to and from the exterior. The room shall be enclosed with not less than 1-hour *fire barriers* constructed in accordance with Section 707 of the *International Building Code*, or both. The transfer to full standby power shall be automatic and within 60 seconds of failure of the primary power.

FIRST PRINTING (Posted May 7, 2009)

CHAPTER 9 FIRE PROTECTION SYSTEMS

- **903.3.1 Standards**. Sprinkler systems shall be designed and installed in accordance with Sections 903.3.1.1, unless otherwise permitted by Sections 903.3.1.2 or and 903.3.1.3.
- **903.3.1.2 NFPA 13R sprinkler systems.** Where allowed in buildings of Group R, up to and including four stories in height, Automatic sprinkler systems in Group R occupancies up to and including four stories in height shall be permitted to be installed throughout in accordance with NFPA 13R.
- **903.3.1.3 NFPA 13D sprinkler systems.** Where allowed, Automatic sprinkler systems installed in one- and two-family dwellings and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D.
- 914.3.5 Fire department communication system. A two-way fire department communication system shall be provided for fire department use in accordance with Section 907.2.13.2. Emergency responder radio coverage. Emergency responder radio coverage shall be provided in accordance with Section 510.

THIRD PRINTING (Posted September 7, 2010)

CHAPTER 10 MEANS OF EGRESS

1004.1.1 Areas without fixed seating. The number of occupants shall be computed at the rate of one occupant per unit of area as prescribed in Table 1004.1.1. For areas without fixed seating, the occupant load shall not be less than that number determined by dividing the floor area under consideration by the occupant per unit of area factor assigned to the occupancy as set forth in Table 1004.1.1. Where an intended use is not listed in Table 1004.1.1, the building official shall establish a use based on a listed use that most nearly resembles the intended use.

Exception: Where approved by the <u>fire code</u> <u>building</u> official, the actual number of occupants for whom each occupied space, floor or building is designed, although less than those determined by calculation, shall be permitted to be used in the determination of the design occupant load.

1004.2 Increased occupant load. The occupant load permitted in any building, or portion thereof, is permitted to be increased from that number established for the occupancies in Table 1004.1.1, provided that all other requirements of the code are also met based on such modified number and the occupant load does not exceed one occupant per 7 square feet (0.65 m2) of occupiable floor space. Where required by the <u>fire code building</u> official, an approved aisle, seating or fixed equipment diagram substantiating any increase in occupant load shall be submitted. Where required by the <u>fire code building</u> official, such diagram shall be posted.

1004.8 Outdoor areas. Yards, patios, courts and similar outdoor areas accessible to and usable by the building occupants shall be provided with means of egress as required by this chapter. The occupant load of such outdoor areas shall be assigned by the <u>fire code building</u> official in accordance with the anticipated use. Where outdoor areas are to be used by persons in addition to the occupants of the building, and the path of egress travel from the outdoor areas passes through the building, means of egress requirements for the building shall be based on the sum of the occupant loads of the building plus the outdoor areas.

- 1. Outdoor areas used exclusively for service of the building need only have one means of egress .
- 2. Both outdoor areas associated with Group R-3 and individual dwelling units of Group R-2.

- **1008.1.9.3 Locks and latches.** Locks and latches shall be permitted to prevent operation of doors where any of the following exists:
 - 1. Places of detention or restraint.
 - 2. In buildings in occupancy Group A having an occupant load of 300 or less, Groups B, F, M and S, and in places of religious worship, the main exterior door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:
 - 2.1. The locking device is readily distinguishable as locked;
 - 2.2. A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background; and
 - 2.3. The use of the key-operated locking device is revokable by the <u>fire code</u> building official for due cause.
 - 3. through 5. (No change)
- **1009.12 Handrails.** Stairways shall have handrails on each side and shall comply with Section 1012. Where glass is used to provide the handrail, the handrail shall also comply with Section 2407 of the *International Building Code*.

Exceptions:

- 1. through 5. (No Change)
- **1011.1 Where required.** Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. The path of egress travel to exits and within exits shall be marked by readily visible exit signs to clearly indicate the direction of egress travel in cases where the exit or the path of egress travel is not immediately visible to the occupants. Intervening means of egress doors within exits shall be marked by exit signs. Exit sign placement shall be such that no point in an exit access corridor or exit passageway is more than 100 feet (30 480 mm) or the listed viewing distance for the sign, whichever is less, from the nearest visible exit sign.

Exceptions:

1. Exit signs are not required in rooms or areas that require only one exit or exit access .

- 2. Main exterior exit doors or gates that are obviously and clearly identifiable as exits need not have exit signs where approved by the <u>fire code building</u> official .
- 3. through 5. (No change)

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CHAPTER 10 MEANS OF EGRESS

1008.1.1 Size of doors. The minimum width of each door opening shall be sufficient for the *occupant load* thereof and shall provide a clear width of 32 inches (813 mm). Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). Where this section requires a minimum clear width of 32 inches (813 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 32 inches (813 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. *Means of egress* doors in a Group I-2 occupancy used for the movement of beds shall provide a clear width not less than 41¹/₂ inches (1054 mm). The height of door openings shall not be less than 80 inches (2032 mm).

- 1. through 7. (No change)
- 8. Door openings required to be accessible within Type B units shall have a minimum clear width of 31.75 inches (806 mm).
- **1008.1.4.3 Horizontal sliding doors.** In other than Group H occupancies, horizontal sliding doors permitted to be a component of a *means of egress* in accordance with Exception 6 to Section 1008.1.2 shall comply with all of the following criteria:
 - 1. through 4. (No change)
 - 5. The door assembly shall comply with the applicable *fire protection rating* and, where rated, shall be self-closing or automatic closing by smoke detection in accordance with Section 715.4.8.3 of the *International Building Code*, shall be installed in accordance with NFPA 80 and shall comply with Section 715 of the *International Building Code*.
 - 6. through 8. (No change)
- **1027.3 Exit discharge location.** Exterior balconies, *stairways* and *ramps* shall be located at least 10 feet (3048 mm) from adjacent *lot lines* and from other buildings on the same lot unless the adjacent building *exterior walls* and openings are protected in accordance with Section 704 705 based on *fire separation distance*.

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CHAPTER 11 AVIATION FACILITIES

1107.4 Exits. Exits and stairways shall be maintained in accordance with Section 412.5 412.7 of the *International Building Code*.

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CHAPTER 23 HIGH-PILED COMBUSTIBLE STORAGE

2303.7 Classification of plastics. Plastics shall be designated as Group A, B or C in accordance with Sections 2903.7.1 through 2703.7.4 2303.7.4.

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CHAPTER 27 HAZARDOUS MATERIALS – GENERAL PROVISIONS

2701.1 Scope. Prevention, control and mitigation of dangerous conditions related to storage, dispensing, use and handling of hazardous materials shall be in accordance with this chapter.

This chapter shall apply to all hazardous materials, including those materials regulated elsewhere in this code, except that when specific requirements are provided in other chapters, those specific requirements shall apply in accordance with the applicable chapter. Where a material has multiple hazards, all hazards shall be addressed.

- 1. through 7. (No change)
- 8. *eryogenics Corrosives* utilized in personal and household products in the manufacturers' original consumer packaging in Group M occupancies.
- 9. and 10. (No change)

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CHAPTER 46 CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS

TABLE 4604.18.2 COMMON PATH, DEAD-END AND TRAVEL DISTANCE LIMITS (by occupancy)

Change the cell for Occupancy H-5, Dead End Limit – Sprinklered as follows: 20 50

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CHAPTER 46 CONSTRUCTION REQUIREMENTS FOR EXISTING BUILDINGS

4603.3.2 Three to five stories. In other than Group I occupancies, interior vertical openings connecting three to five stories shall be protected by either 1-hour fire-resistance-rated construction or an *automatic sprinkler system* shall be installed throughout the building in accordance with Section 903.3.1.1 or 903.3.1.2.

Exceptions:

- 1. Vertical opening protection is not required for Group R-3 occupancies.
- 2. Vertical opening protection is not required for open parking garages and ramps.
- 3. Vertical opening protection is not required for escalators shall be in accordance with Section 4603.3.5, 4603.3.6 or 4603.3.7.

4603.3.3 More than five stories. In other than Group I occupancies, interior vertical openings connecting more than five stories shall be protected by 1-hour fire-resistance-rated construction.

Exceptions:

- 1. Vertical opening protection is not required for Group R-3 occupancies.
- 2. Vertical opening protection is not required for open parking garages and ramps.
- 3. Vertical opening protection is not required for escalators shall be in accordance with Section 4603.3.5, 4603.3.6 or 4603.3.7.

4603.6.5.2.1 Group R-1 boarding and rooming houses automatic smoke detection system. An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.6 shall be installed in existing Group R-1 boarding and rooming houses throughout all interior *corridors* serving *sleeping units* not equipped with an *approved*, supervised sprinkler system installed in accordance with Section 903.

Exception: Buildings equipped with single-station smoke alarms meeting or exceeding the requirements of Section 907.2.10.1 907.2.11.1 and where the fire alarm system includes at least one manual fire alarm box per floor arranged to initiate the alarm.

4603.7.1 Where required. Existing Group R occupancies and *dwellings* not classified as Group R occupancies not already provided with single-station smoke alarms shall be provided with single-station smoke alarms. Installation shall be in accordance with Section 907.2.10 907.2.11, except as provided in Sections 4603.7.2 and 4603.7.3.

4604.1 General. *Means of egress* in existing buildings shall comply with the minimum egress requirements when specified in Table 4603.1 as further enumerated in Sections 4604.2 through 4604.21 4604.23, and the building code that applied at the time of construction. Where the provisions conflict, the most restrictive provision shall apply. Existing buildings that were not required to comply with a building code at the time of construction shall comply with the minimum egress requirements when specified in Table 4603.1 as further enumerated in Sections 4604.2 through 4604.21 4604.23 and, in addition, shall have a life safety evaluation prepared, consistent with the requirements of Section 104.7.2. The life safety evaluation shall identify any changes to the *means of egress* that are necessary to provide safe egress to occupants and shall be subject to review and approval by the *fire code official*. The building shall be modified to comply with the recommendations set forth in the *approved* evaluation.

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CHAPTER 47 REFERENCED STANDARDS

This chapter lists the standards that are referenced in various sections of this document. The standards are listed herein by the promulgating agency of the standard, the standard identification, the effective date and title, and the section or sections of this document that reference the standard. The application of the referenced standards shall be as specified in Section 102.6 102.7.

NFPA

61-08 Prevention of Fires and Dust Explosions in Agricultural and Food Products
Processing Facilities

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H101.4 HMMP short form. Facilities with the *maximum allowable quantities or less per control area* in Tables 2703.3.3(10) 2703.1.1(1) through 2703.1.1(4) of the *International Fire Code* and where the threshold planning quantities at EPA 40 CFR Part 355, Sections 302 and 304 are not exceeded, shall be allowed to file a short-form HMMP which shall include all of the following components:

- 1. General facility information.
- 2. A simple line drawing of the facility showing the location of storage facilities and indicating the hazard class or classes and physical state of the hazardous materials being stored.
- 3. Information that the hazardous materials will be stored and handled in a safe manner and will be appropriately contained, separated and monitored.
- 4. Assurance that security precautions have been taken, employees have been appropriately trained to handle the hazardous materials and react to emergency situations, adequate labeling and warning signs are posted, adequate emergency equipment is maintained and the disposal of hazardous materials will be in an appropriate manner.

Facilities which have prepared, filed and submitted a Tier II Inventory Report required by the U.S. Environmental Protection Agency (USEPA) or required by a state which has secured USEPA approval for a similar form shall be deemed to have complied with this section.

H102.1 Inventory statement contents.

- 1. HMIS Summary Report (see Example Format in Figure 4).
 - 1.1. Complete a summary report for each control area and H occupancy.
 - 1.2. The storage summary report includes the HMIS Inventory Report amounts in storage, use-closed and use-open conditions.
 - 1.3. Provide separate summary reports for storage, use-closed and use-open conditions.
 - 1.4. IBC/IFC Hazard Class.
 - 1.5. Inventory Amount. [Solid (lb), Liquid (gal), Gas (cu.ft., gal or lbs)].
 - 1.6. IBC/IFC Maximum Allowable Quantity per control area (MAQ). (If applicable, double MAQ for sprinkler protection and/or storage in cabinets. For wholesale and retail sales occupancies, go to Tables 2703.11.1 and 3404.3.4.1 of the *International Fire Code* for MAQs.).
- 2. HMIS Inventory Report (see Example Format in Figure 5).
 - 2.1. Complete an inventory report by listing products by location.
 - 2.2. Product Name.
 - 2.3. Components. (For mixtures specify percentages of major components if available.)
 - 2.4. Chemical Abstract Service (CAS) Number. (For mixtures list CAS Numbers of major components if available.)
 - 2.5. Location. (Identify the control area or, if it is a Group H occupancy, provide the classification, such as H-2, H-3, etc.)

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APPENDIX J EMERGENCY RESPONDER RADIO COVERAGE

J103.3.3 Testing and proof of compliance. The emergency responder radio coverage system shall be inspected and tested annually or whenever structural changes occur including additions or remodels that could materially change the original field performance tests. Testing shall consist of the following:

- 1. through 4. (No change)
- 5. At the conclusion of the testing a report verify compliance with Section J103.3.4 J103.2.4 shall be submitted to the *fire code official*.

- 2.6. Container with a capacity of greater than 55 gallons (208 L). (If product container, vessel or tank could exceed 55 gallons, indicate yes in column.)
- 2.7. Hazard Classification. (List applicable classifications for each product.)
- 2.8. Stored. (Amount of product in storage conditions.)
- 2.9. Closed. (Amount of product in use-closed systems.)
- 2.10. Open. (Amount of product in use-open systems.)

Facilities which have prepared, filed and submitted a Tier II Inventory Report required by the U.S. Environmental Protection Agency (USEPA) or required by a state which has secured USEPA approval for a similar form shall be deemed to have complied with this section.

Appendix H FIGURE 5 SECTION II - HAZARDOUS MATERIALS INVENTORY STATEMENT (HMIS) HMIS INVENTORY REPORT (Sort Products Alphabetically by Location of Product and then Alphabetically by Product Name)

Product Name (Components) ^c	CAS Number	Locationa	Container > 55 gal ^b	Haz Class 1	Haz Class 2	Haz Class 3	Stored (lbs)	Stored (gal)	Stored (gas)
GASOLINE, UNLEADED (Gasoline-Mixture)	8006-61-9		F1B	<u>F1B</u>					
Methyl-t-Butyl-Ether- 15%	1634-04-4								
Disopropyll Ether-7%	108-20-3	Control Area 1						5	
Ethanol-11%	64-17-5				 				
Toluene-12%	108-88-3				 				
Xylene-11%	1330-20-7				1				ļ