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Section 915.3

Exceptions:

- (A) classified, in its entirety, in Storage Group S or Utility and Miscellaneous Group U
- (B) occupied only occasionally and only for building or equipment maintenance.
 - ii. a commercial building that is a "canopy"



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Section 915.3




Definition: Canopy

- A permanent structure or architectural projection of rigid construction
- A covering is attached that provides weather protection, identity or decoration
- Structurally independent or supported by attachment to a building



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Section 915.3

Exception iii continued:

When each of the following conditions is satisfied:

- A. When the building is unoccupied
- B. CO source is removed or disabled
- C. Exterior openings are secured
- D. No garage or motor vehicle occupancy
- E. Garage or Motor vehicle occupancy is secure



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Section 915.3

(d) Detection zones required to be provided with carbon monoxide detection.

(e) Placement of carbon monoxide detection.

(g) Carbon monoxide alarms

Power Source- Building wiring and back up power
 Powered solely by 10 year battery – existing building
 Plug in

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Section 915.3

(j) Maintenance.

Shall be maintained in accordance with NFPA 720.
 Carbon monoxide alarms and carbon monoxide detectors that become inoperable or begin producing end-of-life signals shall be replaced as soon as practicable.

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Section 915.3

(k) Connection of carbon monoxide detection systems to control units and off-premises signal transmission.

1. Carbon monoxide detection systems shall be connected to control units and off-premises signal transmission

(2) New commercial buildings that are required by Section 903 or Section 907 of the 2015 IFC to have a fire alarm control panel installed shall have off-premises signal transmission

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Chapter 7 Part 11
Section 1102.1

1102.1 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 1102.1.1 through 1102.1.3.



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Inspection Exercise

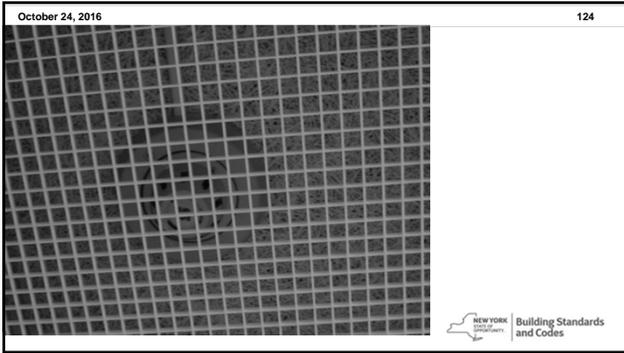
Chapter 9
Fire Protection Systems

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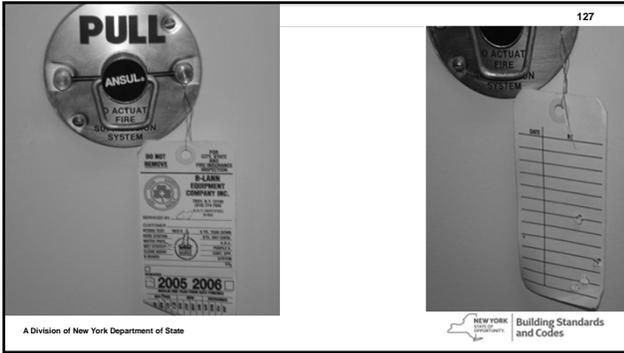


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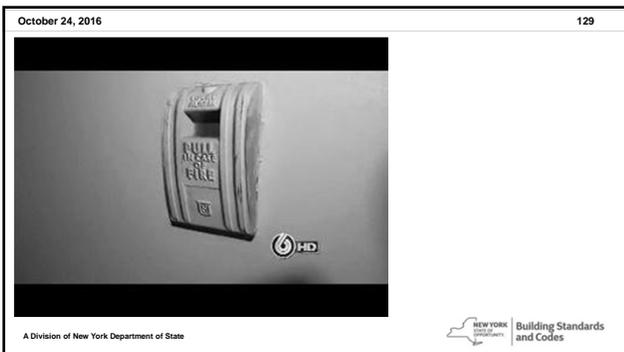


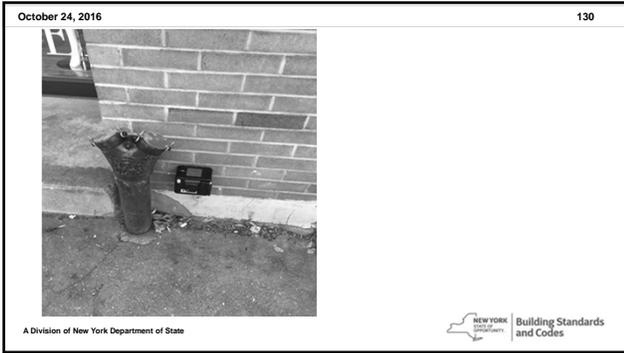


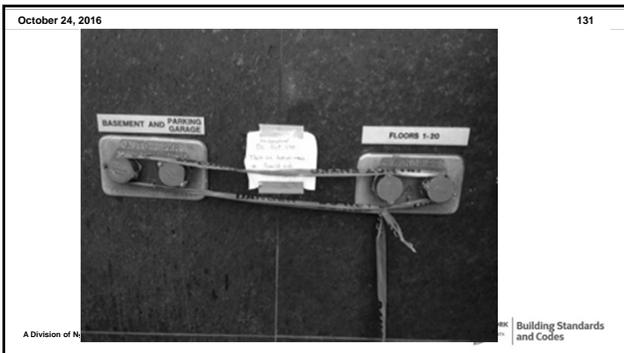














NEW YORK STATE OF OPPORTUNITY | Building Standards and Codes

LESSON 8

The Fire Code

Means of Egress





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Existing Buildings

The International Fire Code

Chapter 10 Means of Egress

Section 1031 Maintenance of The Means of Egress



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1031.1 General.

The *means of egress* for buildings or portions thereof shall be maintained in accordance with this section.





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1031.2 Reliability

Required *exit accesses*, *exits* and *exit discharges* shall be

- continuously maintained
- free from obstructions

For full instant use in the case of an emergency when the building is occupied.

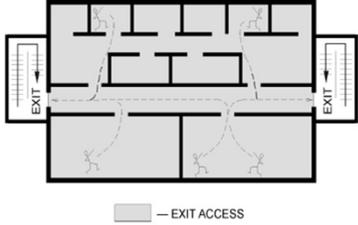


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Three Parts of the Means of Egress

Exit accesses,
Exits and
Exit discharges



leads from any occupied portion of a building or structure to an *exit*

— EXIT ACCESS

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Three Parts of the Means of Egress

Exit accesses,
Exits and
Exit discharges

include exterior exit doors at the level of exit discharge,
interior exit stairways and ramps,
exit passageways,
exterior exit stairways and ramps
and horizontal exits.



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Three Parts of the Means of Egress

*Exit accesses,
Exits and
Exit discharges*

between the
termination of an exit
and a *public way*.

Figure 202-E3
EXIT DISCHARGE

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1031.2.1 Security devices and egress locks

Security devices and locking arrangements in the means of egress that restrict, control, or delay egress shall be installed and maintained as required by this chapter.

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1031.3 Obstructions

Shall be free from obstructions that would prevent its use, including the accumulation of snow and ice.

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1031.4 Exit signs

Maintained in accordance with Section 1013




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1031.5 Non-exit identification

Where a door is adjacent to, constructed similar to and can be confused with a *means of egress* door, that door shall be identified with an *approved* sign that identifies the room name or use of the room.







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1031.6 Finishes, furnishings and decorations

Furnishings, decorations or other objects shall not be placed so as to obstruct *exits*, access thereto, egress therefrom, or visibility thereof. Hangings and draperies shall not be placed over *exit* doors or otherwise be located to conceal or obstruct an *exit*.



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1031.7 Emergency escape and rescue openings

Required *emergency escape and rescue openings* shall be maintained in accordance with the code in effect at the time of construction



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1031.8 Inspection, testing and maintenance.

All two-way communication systems for *areas of refuge* shall be inspected and tested on a yearly basis



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Building Standards and Codes



11. 2015 IFC Chapter 11 (Existing building requirements).

Chapter 11 of the 2015 IFC shall be amended to read as following:



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Means of Egress For Existing Buildings

**New York State
Uniform Code Supplement
Chapter 7
Section 1101**



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1101.1 General

Existing buildings that were **not required to comply with a building code** at the time of construction shall comply with the minimum egress requirements where specified in Sections 1101.2 through 1101.28.


 Building Standards and Codes

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1101.1 General

Exceptions:

1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress
2. Buildings constructed in conformance with a building code in force before the effective date of this code shall have exits maintained in compliance with the code in effect at the date of substantial completion.
3. Buildings rehabilitated in conformance with the Existing Building Code of New York State

 Building Standards and Codes

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Section 1101 Egress in EXISTING Buildings

1101.2 Elevators, escalators and moving walks.
Elevators, escalators and moving walks shall not be used as a component of a required means of egress.

Exceptions:

1. Elevators used as an accessible means of egress where allowed by Section 1009.4.
2. Previously approved elevators, escalators and moving walks in existing buildings.



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Section 1101 Egress in EXISTING Buildings

1101.3 Exit sign illumination.
Exit signs shall be internally or externally illuminated.

Exception: ⇨



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Section 1101 Egress in EXISTING Buildings

1101.5 Illumination emergency power

Exception:

1. Assembly occupancies used exclusively as a place of worship and having an occupant load of less than 300.
2. Group B buildings three or more stories in height, buildings with 100 or more above or below a level of exit discharge or buildings with 1,000 or more total occupants.



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Section 1101 Egress in EXISTING Buildings

1101.5 Illumination emergency power

3. Group E in interior exit access and exit stairways and ramps, corridors, windowless areas with student occupancy, shops and laboratories.

4. Group F having more than 100 occupants.

Exception:
Buildings used only during daylight hours and that are provided with windows for natural light in accordance with the 2015 IBC.

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Section 1101 Egress in EXISTING Buildings

5. Group I.

6. Group M.

Exception: Buildings less than 3,000 square feet (279 m²) in gross sales area on one story only, excluding mezzanines.

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Section 1101 Egress in EXISTING Buildings



7. Group R-1.
Exception: Where each sleeping unit has direct access to the outside of the building at grade.

8. Group R-2.
Exception: Where each dwelling unit or sleeping unit has direct access to the outside of the building at grade.

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Section 1101 Egress in EXISTING Buildings

9. Group R-4.
Exception: Where each sleeping unit has direct access to the outside of the building at ground level.

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Section 1101 Egress in EXISTING Buildings

1101.5.1 Emergency power duration and installation.

- Emergency power for means of egress illumination shall be provided in accordance with IFC Section 604.
- In *other than* Group I-2, emergency power shall be provided for not less than 60 minutes for systems requiring emergency power.
- In **Group I-2**, essential electrical systems shall comply with IFC Sections 1105.5.1 and 1105.5.2. (90 minutes)

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Section 1101 Egress in EXISTING Buildings

1101.6 Guards. Guards complying with this section shall be provided at the open sides of means of egress that are more than 30 inches above the floor or grade below.



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Section 1101 Egress in EXISTING Buildings

1101.6.1 Height of guards. not less than 42 inches high.

Exceptions:

1. Existing guards on the open side of exit access and exit stairways and ramps shall be not less than 30 inches high.
2. Existing guards within dwelling units shall be not less than 36 inches high.
3. Existing guards in assembly seating areas.

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Section 1101 Egress in EXISTING Buildings

1101.7 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 not less than 28 inches

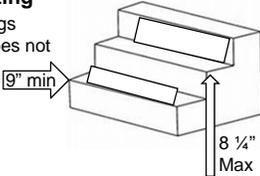
- Ambulatory care facilities, not less than 32 inches
- In Group I-2, means of egress doors where used for the movement of beds shall provide a clear width not less than 41.5 inches
- The height of door openings shall be not less than 80 inches

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Section 1101 Egress in EXISTING Buildings

1101.10 Stair dimensions for existing stairways. Existing stairways in buildings shall be permitted to remain if the **rise** does not exceed **8 ¼ inches** and the **run** is not less than **9 inches**. Existing stairways can be rebuilt.



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Section 1101 Egress in EXISTING Buildings

1101.13 Stairway handrails. Stairways shall have handrails on at least one side. Handrails shall be located so that all portions of the stairway width required for egress capacity are within 44 inches of a handrail.

Exception: Aisle stairs provided with a center handrail are not required to have additional handrails.

1101.13.1 Height. Handrail height, measured above stair tread nosings, shall be uniform, not less than 30 inches and not more than 42 inches.



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Section 1101 Egress in EXISTING Buildings



1101.16 Fire escape stairways.

1101.16.1 Existing means of egress.

Fire escape stairways shall be permitted in existing buildings but shall **not** constitute more than 50 percent of the required exit capacity.



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Section 1101 Egress in EXISTING Buildings

1101.16.2 Protection of openings. Openings within 10 feet of fire escape stairways shall be protected by opening protectives having a minimum ¾-hour fire protection rating.

Exception: In buildings equipped throughout with an approved automatic sprinkler system, opening protection is not required.



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Section 1101 Egress in EXISTING Buildings

1101.16.5 Materials and strength.
Support the dead load plus a live load of **not less than 100 pounds per square foot**

1101.16.5.1 Examination. in accordance with Section 1101.16.5 by a **registered design professional** or others acceptable to the code official **every 5 years**, or as required by the fire code official. An inspection report shall be submitted to the fire code official after such examination.



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Section 1101 Egress in EXISTING Buildings

1101.16.7 Maintenance.

- Kept clear and
- Unobstructed at all times and
- Maintained in good working order.



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Section 1101 Egress in EXISTING Buildings

1101.17 Corridor construction.
Corridors serving an occupant load greater than 30 and The openings therein shall provide an effective barrier to resist the movement of smoke.
Transoms, louvers, doors and other openings shall be kept closed or be self-closing.
In Group I-2, corridors in areas housing patient sleeping or care rooms shall comply with **IFC Section 1105.4.**



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Section 1101 Egress in EXISTING Buildings

Exceptions:

1. in occupancies other than in Group H, that are equipped throughout with automatic sprinkler system.
2. Corridors in occupancies in Group E where each room has not less than one-half of the required means of egress doors opening directly to the exterior of the building at ground level.
3. Corridors that are in accordance with the 2015 IBC.

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Section 1101 Egress in EXISTING Buildings

1101.17.1 Corridor openings.
Openings in corridor walls shall comply with the requirements of the 2015 IBC.

Exceptions:

1. Where 20-minute fire door assemblies are required,
2. Fixed wire glass set in steel frames.
3. Openings covered with 1/2 inch gypsum wallboard or 3/4 inch plywood on the room side.
4. Not required where the building is equipped throughout with an approved automatic sprinkler system.

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Section 1101 Egress in EXISTING Buildings

1101.19 Exit access travel distance. the maximum length of exit access travel, measured from the most remote point to an approved exit along the natural and unobstructed path of egress travel, does not exceed the distances given in Table 1104.18 of the 2015 IFC.

1101.20 Common path of egress travel. The common path of egress travel shall not exceed the distances given in Table 1104.18 of the 2015 IFC.

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Section 1101 Egress in EXISTING Buildings

1023.9.1 Signage requirements.

1. Signs shall be a minimum size of 18 inches by 12 inches
2. Letters designating the identification shall be not less than 1 ½ inches in height.
3. Number designating the floor level not less than 5 inches in height and located in the center of the sign.
4. Other lettering and numbers shall be not less than 1 inch in height.



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Section 1101 Egress in EXISTING Buildings

5. Characters and their background shall have a non-glare finish. Characters shall contrast with their background, with either light characters on a dark background or dark characters on a light background
6. Where signs required by Section 1023.9 are installed in the *interior exit stairways* and *ramps* of buildings subject to Section 1025, the signs shall be made of the same materials as required by Section 1025.4.



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Section 1101 Egress in EXISTING Buildings

1101.25 Egress path markings. Existing high-rise buildings of *Group A, B, E, I, M and R-1 occupancies* shall be provided with luminous egress path markings in accordance with Section 1025.



Exception: Open, unenclosed stairwells in historic buildings designated as historic under a state or local historic preservation program.



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Section 1101 Egress in EXISTING Buildings

1101.26 Capacity of means of egress. The occupant load of buildings or portions of buildings shall not exceed the capacity of the means of egress from the buildings or portions thereof. Occupant load shall be calculated as provided in **IFC Section 1004.1**. Capacity of the means of egress shall be calculated as provided in **IFC Sections 1005 and 1006**.

NEW YORK
1004.1
Building Standards and Codes

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Assembly without fixed seats

Concentrated (chairs only-not fixed)	7 net
Standing space	5 net
Unconcentrated (tables and chairs)	15 net

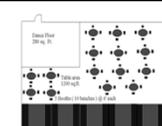


TABLE 1004.2.2
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

FUNCTION OF SPACE	OCCUPANT LOAD FACTOR
Accessory storage areas, mechanical equipment rooms	200 gross
Agricultural buildings	100 gross
Aircraft hangars	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	100 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly	
Dancing floor (kiss, sit-in, etc.)	11 gross
Exhibit Gallery and Museums	30 net
Assembly with fixed seats	See Section 1004.4
Assembly without fixed seats	
Concentrated (chairs only-not fixed)	7 net
Standing space	5 net
Unconcentrated (tables and chairs)	15 net
Bowling centers, allow 3 persons for each lane including 15 feet of courtesy, and for additional areas	7 net
Business areas	100 gross
Courtrooms—other than fixed seating areas	40 net
Day care	35 net
Daycare centers	50 gross
Educational	
Classroom area	20 net
Shops and other vocational rooms areas	50 net
Exercise rooms	50 gross
H.C.F. fabrication and manufacturing areas	200 gross
Industrial areas	
Regional treatment areas	240 gross
Outpatient areas	100 gross
Sleeping areas	120 gross
Retail, commercial	500 gross

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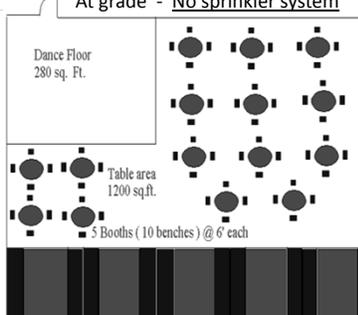
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At grade - No sprinkler system

Dance Floor
280 sq. Ft.

Table area
1200 sq.ft.

5 Booths (10 benches) @ 6' each



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1005.3.2 Other Egress Components

Dance Floor
200 sq. ft.

Table area
1200 sq. ft.

Booths (10 benches) @ 6' each

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Section 1101 Egress in EXISTING Buildings

1101.27 Posting of occupant load.

- Every room or space that is an assembly occupancy
- Posted in a conspicuous place
- Near the main exit or exit access doorway
- Maintained by the owner

MAXIMUM OCCUPANCY
Persons permitted within this space per NFPA 101 and International Code

112 When used for TABLES, JANETS

240 When used for SEATING ONLY

N/A When used for STANDS ONLY
Barriers permitted at no seating

SIBLEY HALL
ROOM 201

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Section 1101 Egress in EXISTING Buildings

1101.28 Overcrowding. It shall be prohibited for buildings, or portions thereof, to be overcrowded. The building owner or authorized agent shall be responsible

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Definitions IFC Chapter 2



**IFC Section 202
OVERCROWDING.**

A condition that exists when either there are more people in a building, structure or portion thereof than have been authorized or posted by the *fire code official*, or

When the *fire code official* determines that a threat exists to the safety of the occupants due to persons sitting and/or standing in locations that may obstruct or impede the use of *aisles*, passages, *corridors*, *stairways*, *exits* or other components of the *means of egress*.

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Section 1102 Egress in EXISTING Buildings

1102.1 Single- and multiple-station smoke alarms.

Single- and multiple-station smoke alarms shall be installed in existing Group I-1 and R occupancies

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Definitions IFC Chapter 2

Institutional Group I-1

more than 16 persons, excluding staff, who reside on a 24-hour basis including, 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
- Residential board and custodial care facilities
- Social rehabilitation facilities

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Definitions IFC Chapter 2

ALL R occupancies



R-1



R-2



R-4



R-3



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Section 1103 Egress in EXISTING Buildings

1103.1 Fire alarm systems

- Group E
- Group I-1 Automatic System
- Group I-2 Automatic System
- Group I-3 Automatic and Manual Systems
- Group R-1
- Group R-2
- Group R-4

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Inspection Exercise You're the inspector.

**IFC Chapter 10
Means of Egress**

**NY Supplement Chapter 7 Section 1100
Means of Egress in Existing Buildings**

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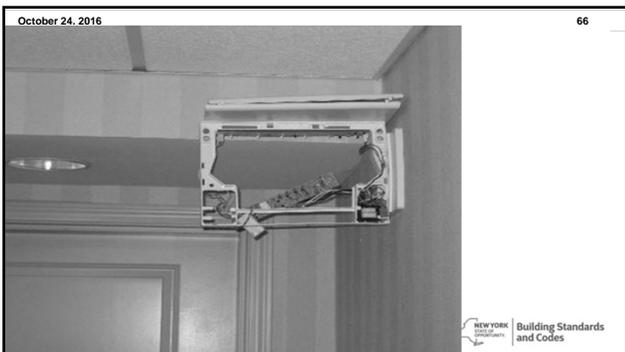




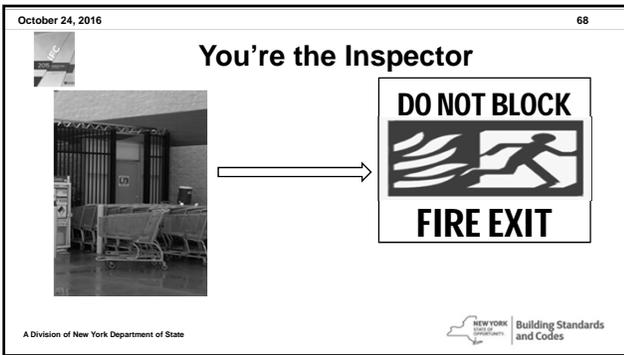


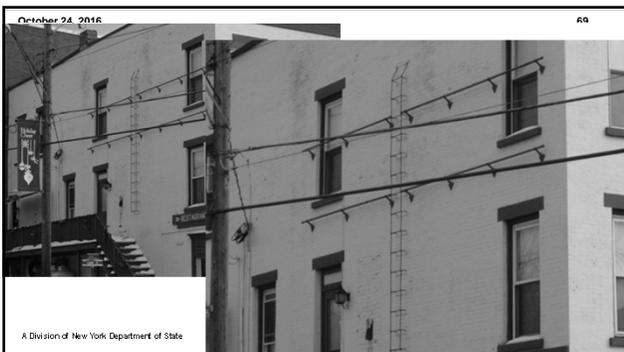




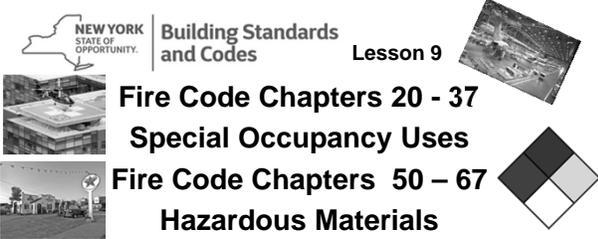








NEW YORK STATE OF OPPORTUNITY | Building Standards and Codes Lesson 9



Fire Code Chapters 20 - 37
Special Occupancy Uses
Fire Code Chapters 50 - 67
Hazardous Materials

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Operating Permits

NYCRR Title 19
 Chapter XXXIII
 Part 1203
 1203.3 Minimum Features of a program
 for administration and enforcement of
 the Uniform Code
 Section (g) Operating Permits



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(g) Operating permits.

(2) Parties who propose to undertake the types of activities or operate the types of buildings listed in paragraph (1) of this subdivision shall be required to obtain an operating permit prior to commencing such operation. Tests or reports necessary to verify conformance shall be required



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(1) Operating permits shall be required for conducting the activities or using the categories of buildings listed below:

- (i) manufacturing, storing or handling hazardous materials in quantities exceeding those listed in Tables 5003.1.1(1), 5003.1.1(2), 5003.1.1(3) or 5003.1.1(4), of the Fire Code
- (ii) hazardous processes and activities, including but not limited to, commercial and industrial operations which produce combustible dust as a byproduct, fruit and crop ripening, and waste handling;
- (iii) use of pyrotechnic devices in assembly occupancies;
- (iv) buildings containing one or more areas of public assembly with an occupant load of 100 persons or more; and
- (v) buildings whose use or occupancy classification may pose a substantial potential hazard to public safety, as determined by the government or agency charged with or accountable for administration and enforcement of the Uniform Code.

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Chapters 20- 36

Requirements for specific occupancies or uses

Applies to New Construction
Existing (Fire safety inspections)

If the property includes the condition apply the chapter

If not, skip entire chapter

Chapter 33 is Fire Safety During Construction

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Specific Code Applications

<ul style="list-style-type: none"> • Aviation Facilities • Dry Cleaning • Combustible Dust Producing Operations • Motor Fuel Dispensing and Repair Garages • Flammable Finishes • Fruit and Crop Ripening • Fumigation and Insecticidal Fogging • Semiconductor Fabrication Facilities • Lumber Yards and Woodworking Facilities 	<ul style="list-style-type: none"> • Manufacture of Organic Coatings • Industrial Ovens • Tents and Other Membrane Structures • High Piled Combustible Storage • Tire Rebuilding and Tire Storage • Welding and Other Hot Work • Marinas • Combustible Fibers
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Chapter 21 - Dry Cleaning

2103 Classifications

- 2103.1 Solvent Classification
- 2103.2 Plant and System Classification

The key to the requirements for dry cleaning facilities is proper classification of solvents and systems



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Chapter 23 Motor Fuel-Dispensing Facilities and Repair Garages



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Chapter 23 2304 Dispensing Operations

2304.1 Supervision of Dispensing.

– *The dispensing of fuel ... shall be conducted by a ...*

- Qualified attendant
- Or, supervised by a qualified attendant
- Or, per 2304.3 (Unattended self service)



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Chapter 23
2304.2 Qualified Attendant

Observe, supervise, control
Prevent unauthorized containers
Control ignition sources
Handle spills, leaks
Use fire extinguisher



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2204.2.4 Obstructions to view.



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2305 Operational Requirements

2305.2 Equipment maintenance and inspection.
Maintained in proper working order at all times

2305.2.1 Emergency Shut off Valves.
▪ Shall be checked annually



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2305 Operational Requirements

2305.2.3 Dispensing Devices. Repairs
 Knowledgeable persons
 Electrical power off
 Emergency shut off closed
 Vehicles – minimum 12 feet away



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2305 Operational Requirements



2305.2.4 Emergency shutoff valves.
Checked not less than once per year

2305.2.5 Leak detectors.
Checked and tested at least annually

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**SECTION 2305
OPERATIONAL REQUIREMENTS**



2305.4 Sources of Ignition
Prohibited

2305.5 Fire Extinguishers.
comply with Section 906

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2305 Operational Requirements

2305.6 Warning signs.

"within sight of each dispenser"

1. No smoking.
2. Shut off motor.
3. Discharge your static electricity before fueling by touching a metal surface away from the nozzle.
4. To prevent static charge, do not reenter your vehicle while gasoline is pumping.
5. If a fire starts, do not remove nozzle-back away immediately.
6. It is unlawful and dangerous to dispense gasoline into unapproved containers.
7. No filling of portable containers in or on a motor vehicle. Place container on ground before filling.

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Types of Fuel Dispensing Facilities

2307
LIQUEFIED PETROLEUM

2308
COMPRESSED NATURAL GAS

2309
HYDROGEN



**Check each section if it applies,
Maintenance, Fire extinguishers, supervision AND
Appropriate additional Chapters**

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2310 Marine Motor Fuel Dispensing

2310.5.7 Warning signs.

WARNING

**NO SMOKING—STOP ENGINE WHILE FUELING,
SHUT OFF ELECTRICITY**

**DO NOT START ENGINE UNTIL AFTER BELOW
DECK SPACES ARE VENTILATED.**



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2310 Marinas

2310.6.4
Portable fire extinguishers.

20-BC
On each float
On the pier
Each standpipe connection
(3604.4)

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2311 Repair Garages

Storage and use of flammable and combustible liquids.
Sources of ignition.
Smoking.
Ventilation.
All items that a fire inspection should address

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Chapter 31 Tents and Other Membrane Structures









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3101 Tents, temporary stage canopies and membrane structures

Section 3103 is applicable only to temporary tents and membrane structures

Section 3104 is applicable to temporary and permanent tents and membrane structures



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Tents and Other Membrane Structures

3103.4 Permits.

3103.5 Use period.
Shall not be erected for a period of more than 180 days within a 12-month period on a single premises.

3103.7 Inspections
not less than two times per permit use period

3103.7.1 Inspection report.
When required

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Tents and Other Membrane Structures



3103.9.1 Tents and membrane structures exceeding one story.
Designed and constructed to comply with BC Chapter 16

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Tents and Other Membrane Structures

3103.6 Construction documents. A detailed site and floor plan for tents or membrane structures with an *occupant load of 50 or more* shall be provided *means of egress facilities, seating capacity, arrangement of the seating and location and type of heating and electrical equipment.*

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You're the inspector



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Tents and Other Membrane Structures

3103.11 Seating arrangements. Seating in tents or membrane structures shall be in accordance with Chapter 10.

3103.12 Means of egress. *Means of egress* for temporary tents and membrane structures shall be in accordance with Sections 3103.12.1 through 3103.12.8.

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Tents and Other Membrane Structures

TABLE 3103.12.2
MINIMUM NUMBER OF MEANS OF EGRESS AND MEANS OF
EGRESS WIDTHS FROM TEMPORARY MEMBRANE STRUCTURES AND TENTS

OCCUPANT LOAD	MINIMUM NUMBER OF MEANS OF EGRESS	MINIMUM WIDTH OF EACH MEANS OF EGRESS (inches)	
		Tent	Membrane Structure
10 to 199	2	72	36
200 to 499	3	72	72
500 to 999	4	96	72
1,000 to 1,999	5	120	96
2,000 to 2,999	6	120	96
Over 3,000 ^a	7	120	96

For SI: 1 inch = 25.4 mm.
a. When the occupant load exceeds 3,000, the total width of means of egress (in inches) shall be not less than the total occupant load multiplied by 0.2 inches per person.

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Tents and Other Membrane Structures

3104.3 Label. Membrane structures or tents shall have a permanently affixed label.

3104.4 Certification. An affidavit or affirmation shall be submitted to the *fire code official* and a copy retained on the premises on which the tent or air-supported structure is located.

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Tents and Other Membrane Structures

3105.1 General. Temporary stage canopies shall comply with Section 3104, Sections 3105.2 through 3105.8 and ANSI E1.21.




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Tents and Other Membrane Structures

3105.2 Approval. Temporary stage canopies in excess of 400 square feet shall not be erected, operated or maintained for any purpose without first obtaining approval and a permit



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Temporary stage canopies

3105.4 Use period. Temporary stage canopies shall not be erected for a period of more than 45 days.

For structures to be used longer than that period, they would be treated as permanent structures and be regulated by the Building Code.

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Temporary stage canopies

3105.5 Required documents. The following documents shall be submitted to the *fire code official* and the building official for review before a permit is *approved*:

1. *Construction documents* shall be prepared in accordance with the *Building Code* by a registered design professional
2. Designation of responsible party
3. Operations plan



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Temporary stage canopies

3105.6 Inspections

3105.6.1 Independent inspector
The owner shall employ a qualified, independent approved agency or individual

3105.6.2 Inspection report.
Shall furnish an inspection report to the fire code official.

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Chapter 32 High Piled Combustible Storage

Definition




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Chapter 32 High Piled Combustible Storage



Greater than 12' or

Greater than 6'
"For certain materials"



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Chapter 32 High Piled Combustible Storage

Low Fire Hazard

Class I Essentially noncombustible products on noncombustible pallets

High Fire Hazard

Class II Essentially Class I products on wood pallets or crates

Class III Essentially wood, paper and fiber products and Group C plastics (limited Class A and B plastics)

Class IV Essentially Class I, II or III containing significant Group A plastics (unlimited Class B plastics and free-flowing Group A plastics)

High Hazard

— Essentially present fire hazard beyond Class I, II, III or IV

3203.1
Classification of commodities.

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SECTION 3205 HOUSEKEEPING AND MAINTENANCE

3205.3 Smoking.
Smoking shall be prohibited

3205.4 Aisle maintenance.
Kept clear of storage, waste material and debris



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Chapter 35 - Welding and other Hot Work

3501.2 – Permits Required



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3503.3 Hot Work Program Permit.

Issued by an *approved* responsible person under a hot work program, shall be available at the time the work is conducted and for 48 hours after work is complete.

3503.5 Records.
The individual responsible for the hot work area shall maintain "pre-work check" reports in accordance with Section 3504.3.1.

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Pre-work check

3504.3 Area reviews.
Before hot work is permitted and at least once per day, the area shall be inspected by the individual responsible prior to signing the permit

3504.3.1 Pre-hot-work check.
A pre-hot-work check shall be conducted prior to A report of the check, shall be kept at the work site, available upon request. The pre-hot-work check shall determine all of the following:

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3504.3.1 Pre- Hot Work Check

1. Equipment in satisfactory operating condition
2. Site is clear of combustibles
3. Exposed construction is noncombustible materials or, protected.
4. Openings are protected.
5. Floors are clean.
6. No combustibles on the opposite side of partitions, walls, ceilings or floors.
7. Fire watches, are assigned.
8. *Approved* actions have been taken to prevent accidental activation of suppression and detection equipment
9. Fire extinguishers are operable and available.

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3504 Fire Safety Requirements



3504.2 Fire watch.
Fire watches shall be established and conducted in accordance with Sections 3504.2.1 through 3504.2.6.

3504.2.1
When required. During hot work activities and shall continue for a minimum of 30 minutes after the conclusion of the work. The fire code official, or the responsible manager under a hot work program, is authorized to extend the fire watch

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3504 Fire Safety Requirements

3504.2.2 Location The fire watch shall include the entire hot work area.

3504.2.3 Duties shall have fire-extinguishing equipment readily available and shall be trained, responsible for extinguishing spot fires and communicating an alarm.

3504.2.4 Fire training shall be trained in the use of portable fire extinguishers

3504.2.5 Fire hoses. shall be connected, charged and ready for operation.

3504.2.6 Fire extinguisher. minimum 2-A:20-B:C rating shall be readily accessible within 30 feet

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Chapter 50 Hazardous Materials

Chapters 50 - 67




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Hazardous Materials





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Hazardous Materials

Under the Code, the CEO's job is **NOT** to respond accidents involving hazardous materials.





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CHAPTER 50 HAZARDOUS MATERIALS— GENERAL PROVISIONS

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.

Where a material has multiple hazards, all hazards shall be addressed.

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5001.1 Scope.

Exceptions:
There are 11 exceptions

1. In retail or wholesale sales occupancies
2. Alcoholic beverages in retail or wholesale sales occupancies
3. Application and release of pesticide and agricultural products

These are just a few, how about this one,

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5001.1 Scope.

11. The use of wall-mounted dispensers containing alcohol-based hand rubs classified as Class I or II liquids when in accordance with Section 5705.5.

Let's look at 5705.5



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5705.5 Alcohol-based hand rubs

Alcohol-based hand rubs classified as Class I or II liquids.

The use of **wall-mounted** dispensers containing alcohol-based hand rubs classified as Class I or II liquids shall be in accordance with all of the following:

What is a Class I or Class II liquid?

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What's in 5705.5

Maximum size of a dispenser?

Minimum Separation of dispensers?

Dispensers mounted on walls area maximum of how many inches above the floor?

Dispensers located in fire areas with carpeted floors need what?

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What's does 5705.5 say?

In Corridors

Maximum capacity of a Class I dispenser?

Maximum quantity allowed?

Minimum corridor width?

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Chapter 50 Hazardous Materials

5001.2 Material classification.
Shall apply to all hazardous materials

5001.2.1 Mixtures.
classified with hazards of the mixture as a whole.



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Chapter 50 Hazardous Materials

5001.2.2 Hazard categories.
Hazardous materials shall be classified according to hazard categories.

5001.2.2.1 Physical hazards. 

5001.2.2.2 Health hazards. 

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5001.3.3.12 Pre-startup safety review.
Written documentation of pre-startup safety review procedures shall be developed and enforced to ensure that operations are initiated in a safe manner and shall involve the participation of affected employees.

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5001.3.3.15 Emergency plan.
A written emergency plan shall be developed

5001.3.3.16 Accident procedures.
Written procedures shall be developed

5001.3.3.18 Safety audits.
Conducted on a periodic basis to verify compliance

These are requirements that have to be checked during an inspection.

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Chapter 50 Hazardous Materials

5001.4 Retail and wholesale storage and display.
For retail and wholesale storage and display of nonflammable solid and nonflammable or noncombustible liquid hazardous materials in Group M occupancies and storage in Group S occupancies, see Section 5003.11.

Let's look at 5003.11

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Chapter 50 Hazardous Materials

5003.11 Group M storage and display and Group S storage.
nonflammable solid and nonflammable or noncombustible liquid hazardous materials within a single control area of a Group M, or an outdoor control area, or single control area of a Group S occupancy, is allowed to exceed the maximum allowable quantity per control area BUT

Sections 5003.11.1 through 5003.11.3.11

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5003.11.1 Maximum allowable quantity per control area in Group M or S occupancies.
The aggregate amount of nonflammable solid and nonflammable or noncombustible liquid hazardous materials
Shall not exceed the amounts set forth in Table 5003.11.1.

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TABLE 5003.11.1
 MAXIMUM ALLOWABLE QUANTITY PER INDOOR AND OUTDOOR CONTROL AREA IN GROUP M AND S OCCUPANCIES—NONFLAMMABLE SOLIDS, NONFLAMMABLE AND NONCOMBUSTIBLE LIQUIDS^{a, c, f}

Material ^a	Class	MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA	
		Solids pounds	Liquids gallons
A. HEALTH HAZARD MATERIALS—NONFLAMMABLE AND NONCOMBUSTIBLE SOLIDS AND LIQUIDS			
1. Corrosives ^{b, c}	Not Applicable	9,750	975
2. Highly Toxics	Not Applicable	20 ^{b, c}	2 ^c
3. Toxics ^{b, c}	Not Applicable	1,000	100
B. PHYSICAL HAZARD MATERIALS—NONFLAMMABLE AND NONCOMBUSTIBLE SOLIDS AND LIQUIDS			
1. Oxidizers ^{b, c}	4	Not Allowed	Not Allowed
	3	1,150 ^f	115
	2	2,250 ^g	225
	1	18,000 ^{h, i, j}	1,800 ^{h, i, j}
2. Unstable (Reactive) ^{b, c}	4	Not Allowed	Not Allowed
	3	550	55
	2	1,150	115
	1	Not Limited	Not Limited
3. Water Reactives	3 ^{b, c}	550	55
	2 ^{b, c}	1,150	115
	1	Not Limited	Not Limited

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For SI: 1 pound = 0.454 kg, 1 gallon = 3.785 L, 1 cubic foot = 0.02832 m³.

- Hazard categories are as specified in Section 5001.2.2.
- Maximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1. Where Note c also applies, the increase for both notes shall be applied accumulatively.
- Maximum allowable quantities shall be increased 100 percent where stored in approved storage cabinets in accordance with Section 5003.8. Where Note b also applies, the increase for both notes shall be applied accumulatively.
- See Table 5003.8.3.2 for design and number of control areas.
- Maximum allowable quantities for other hazardous material categories shall be in accordance with Section 5003.1.
- Maximum allowable quantities shall be increased 100 percent in outdoor control areas.
- Maximum allowable quantities shall be increased to 2,250 pounds where individual packages are in the original sealed containers from the manufacturer or package and do not exceed 10 pounds each.
- Maximum allowable quantities shall be increased to 4,500 pounds where individual packages are in the original sealed containers from the manufacturer or package and do not exceed 10 pounds each.
- Quantities are unlimited where protected by an automatic sprinkler system.
- Quantities are unlimited in an outdoor control area.

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Oxidizers
Appendix E
Section 102.1.7.1

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Chapter 50 Hazardous Materials

5001.5 Permits. Permits MAY BE required
Your Local Law should include
Title 19 Part 1203
§1203.3 Minimum features
(g) Operating permits
(1) Operating permits shall be required

When required by the *code official*, permittees shall apply for approval to permanently close a storage, use or handling facility

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1203.3 Minimum features (g) Operating permits

(g) *Operating permits.*

(1) Operating permits shall be required for conducting the activities or using the categories of buildings listed below:

(i) manufacturing, storing or handling hazardous materials in quantities exceeding those listed in Tables 5003.1.1(1), 5003.1.1(2), 5003.1.1(3) or 5003.1.1(4), of the Fire Code

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1203.3 Minimum features (g) Operating permits

v) buildings whose use or occupancy classification may pose a substantial potential hazard to public safety, as determined by the government or agency charged with or accountable for administration and enforcement of the Uniform Code.

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5001.5.1 Hazardous Materials Management Plan.

Application for a permit **shall include** a Hazardous Materials Management Plan

Look at the nine items in this plan.
Inspector -Has the plan been updated ?
Has the plan been taught to all employees?

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Chapter 50 Hazardous Materials

5001.5.2 Hazardous Materials Inventory Statement (HMIS).

Hazardous Materials shall be reported annually, as required by NY General Municipal Law 209(u).

Nine Items:

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5003.1.1 Maximum allowable quantity per control area. as specified in Tables 5003.1.1(1) through 5003.1.1(4).

Check the Footnotes

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MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS PURSUING A PHYSICAL HAZARD

MATERIAL	CLASS	GROUP WHICH THE ALLOWABLE QUANTITY IS EXCLUDED	STORAGE ^a			USE-CLOSED SYSTEMS ^b			USE-OPEN SYSTEMS ^c	
			Solid pounds (unless feet)	Liquid gallons (unless feet)	Gas cubic feet at HTP ^d	Solid pounds (unless feet)	Liquid gallons (unless feet)	Gas cubic feet at HTP	Solid pounds (unless feet)	Liquid gallons (unless feet)
Compressible liquid ^e	II, IIIA, IIIB	H-2 or H-3, H-2 or H-3, Not Applicable	Not Applicable	1200 ⁺ , 3500 ⁺ , 15,200 ⁺	Not Applicable	Not Applicable	1200 ⁺ , 3500 ⁺ , 15,200 ⁺	Not Applicable	Not Applicable	300 ⁺ , 800 ⁺ , 3,200 ⁺
Combustible fiber	None	H-3	(100)	Not Applicable	Not Applicable	(100)	Not Applicable	Not Applicable	(20)	Not Applicable
Cryogenic	None	H-2	Not Applicable	45 ⁺	Not Applicable	Not Applicable	45 ⁺	Not Applicable	Not Applicable	10 ⁺
Flammable	None	H-2	Not Applicable	45 ⁺	Not Applicable	Not Applicable	45 ⁺	Not Applicable	Not Applicable	10 ⁺
Compressed Gases (Class C Common)	I, G	H-3	1200 ⁺	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Cryogenic Oxidizing	None	H-3	Not Applicable	45 ⁺	Not Applicable	Not Applicable	45 ⁺	Not Applicable	Not Applicable	10 ⁺
Explosives	Division 1.1	H-1	1 ⁺	(1) ⁺	Not Applicable	0.25 ⁺	(0.25) ⁺	Not Applicable	0.25 ⁺	(0.25) ⁺
	Division 1.2	H-1	1 ⁺	(1) ⁺	Not Applicable	0.25 ⁺	(0.25) ⁺	Not Applicable	0.25 ⁺	(0.25) ⁺
	Division 1.3	H-1 or H-2	1 ⁺	(1) ⁺	Not Applicable	1 ⁺	(1) ⁺	Not Applicable	1 ⁺	(1) ⁺
	Division 1.4	H-3	50 ⁺	50 ⁺	Not Applicable	50 ⁺	50 ⁺	Not Applicable	50 ⁺	50 ⁺
	Division 1.4G, H-3	H-3	1200 ⁺	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Division 1.5	H-1	1 ⁺	(1) ⁺	Not Applicable	0.25 ⁺	(0.25) ⁺	Not Applicable	0.25 ⁺	(0.25) ⁺	
Division 1.6	H-1	1 ⁺	(1) ⁺	Not Applicable	0.25 ⁺	(0.25) ⁺	Not Applicable	0.25 ⁺	(0.25) ⁺	
Flammable gas	Gaseous, Liquefied	H-2	Not Applicable	Not Applicable	1,000 ⁺ , Not Applicable	Not Applicable	Not Applicable	1,000 ⁺ , Not Applicable	Not Applicable	Not Applicable
Flammable liquids ^f	IA, IB and IC	H-2, H-3	Not Applicable	300 ⁺ , 1,200 ⁺	Not Applicable	Not Applicable	300 ⁺ , 1,200 ⁺	Not Applicable	Not Applicable	100 ⁺ , 300 ⁺
Combustion Flammable liquid (IA, IB, IC)	None	H-2 or H-3	Not Applicable	1200 ⁺	Not Applicable	Not Applicable	1200 ⁺	Not Applicable	Not Applicable	300 ⁺
Flammable solid	None	H-3	1200 ⁺	Not Applicable	Not Applicable	1200 ⁺	Not Applicable	Not Applicable	250 ⁺	Not Applicable

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Table 5003.1.1 (1)

During your inspection you find that there is 150 gallons of Class 1A flammable liquid stored in a control area. The material is in the proper containers and the building has an automatic sprinkler system.

Using Table 5003.1.1, Is this amount of hazardous material acceptable?



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	IA IB and IC	H-2 or H-3	Not Applicable
Liquid Gallons			30 ^{d,e} 120 ^{d,e}

Flammable Liquids

IA

H-2

30^{d,e}

Only if the quantity
EXCEEDS the Table

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Table 5003.1.1 (1) Footnotes

d. Maximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1. Where Note e also applies, the increase for both notes shall be applied accumulatively.

e. Maximum allowable quantities shall be increased 100 percent when stored in approved storage cabinets, day boxes, gas cabinets, exhausted enclosures, or listed safety cans. Listed safety cans shall be in accordance with Section 5003.9.10. Where Note d also applies, the increase for both notes shall be applied accumulatively.

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Table 5003.1.1(1)

MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF FLAMMABLE LIQUIDS POSING A PHYSICAL HAZARD^{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100}

MATERIAL	CLASS	GROUP	MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA ^{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100}	CONTROL AREA		USE-CLOSED SYSTEM ^{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100}				USE-OPEN SYSTEM ^{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100}	
				Control Area	Control Area	Control Area	Control Area	Control Area	Control Area	Control Area	Control Area
Flammable liquid ^{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100}	IA IB IC	IB-1 IB-2 IB-3	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}
Flammable liquid ^{1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100}	IA IB and IC	IB-1 IB-2 IB-3	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}	120 ^{d,e} 120 ^{d,e} 120 ^{d,e}

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Chapter 50 Hazardous Materials

5003.1.3 Quantities not exceeding the maximum allowable quantity per control area.

- Shall be in accordance with Sections 5001 and 5003.

5003.1.4 Quantities exceeding the maximum allowable quantity per control area.

- Shall be in accordance with this chapter.

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Chapter 50 Hazardous Materials

5003.2.6 Maintenance.
Equipment, machinery and required detection and alarm systems associated with hazardous materials shall be maintained in an operable condition

Written records shall be maintained as per **5003.2.9. as per the provisions of Supplement Chapter 1 Section 101.2.6.2**

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Chapter 50 Hazardous Materials

5003.2.9 Testing The equipment, devices and systems listed in Section 5003.2.9.1 shall be tested at the time of installation and at one of the intervals listed in Section 5003.2.9.2.

Records of the tests conducted or maintenance performed shall be maintained



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Chapter 50 Hazardous Materials

5003.2.9.2 Testing frequency.

1. Not less than annually;
2. In accordance with the *approved* manufacturer's requirements;
3. In accordance with *approved* recognized industry standards; or
4. In accordance with an *approved* schedule.

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Chapter 50 Hazardous Materials

5003.3 Release of hazardous materials.
Hazardous materials in any quantity shall not be released

5003.3.1 Unauthorized discharges.
When hazardous materials are released in quantities reportable under state, federal or local regulations, the *fire code official* shall be notified and the following procedures required in accordance with Sections 5003.3.1.1 through 5003.3.1.4.

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Chapter 50 Hazardous Materials

5003.3.1 Unauthorized discharges.

Records. Maintained

Preparation. controlling and mitigating unauthorized discharges.

Control. container shall be repaired or removed from service.

Responsibility for cleanup. shall institute and complete all actions necessary



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Chapter 50 Hazardous Materials



5003.4 Material Safety Data Sheets.

Be **readily available** on the premises

WHERE ?

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Chapter 50 Hazardous Materials



5003.5 Hazard identification signs.
Visible hazard identification signs as specified in NFPA 704, on containers, at entrances.

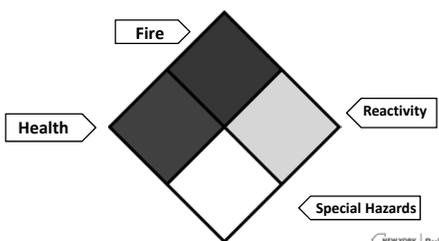
5003.5.1 Markings.
Conspicuously marked or labeled in an approved manner.

5003.6 Signs.
Not be obscured or removed,
Be durable, and the size, color and lettering shall be *approved*.

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Chapter 50 Hazardous Materials

Globally Harmonized System of Classification and Labeling of Chemicals

- Section 1. Identification
- Section 2. Hazard(s) identification
- Section 4. First-aid measures
- Section 5. Fire-fighting measures
- Section 6. Accidental release measures
- Section 8. Exposure controls/personal protection

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Chapter 50 Hazardous Materials

QUICK CARD - NFPA
www.nfpa.org/Assets/files/AboutTheCodes/704/NFPA704_HC2012_QCard.pdf

NFPA 704 HazCom 2012 Purpose Provides basic information for emergency personnel responding to a fire or spill and those planning for emergency response.



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Chapter 50 Hazardous Materials

	 NFPA 704	 HazCom 2012
Number System: NFPA Rating and OSHA's Classification System	0-4 0-least hazardous 4-most hazardous	1-4 1-most severe hazard 4-least severe hazard • The Hazard category numbers are NOT required to be on labels but are required on SDSs in Section 2. • Numbers are used to CLASSIFY hazards to determine what label information is required.

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Chapter 50 Hazardous Materials

5003.9 General safety precautions.
 Precautions for the safe storage, handling or care of hazardous materials

5003.9.1 Personnel training and written procedures.
 Shall be familiar with the chemical nature of the materials and the appropriate mitigating actions



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Chapter 50 Hazardous Materials

5003.9.1.1 Fire department liaison.

- Responsible persons
- Aid the fire department
- Preplanning emergency responses
- Identifying the locations
- Access to Material Safety Data Sheets
- Knowledgeable in emergency response procedures.




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Chapter 50 Hazardous Materials

5003.9.2 Security.
 secured against unauthorized entry
approved by the code official.



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Chapter 50 Hazardous Materials

5003.9.3 Protection from vehicles.

In accordance with Section 312.



312.1 General.
Shall be provided by posts or by other *approved* physical barriers

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Chapter 50 Hazardous Materials

5003.10 Handling and transportation.

In *corridors* or enclosures for stairways and ramps

5003.10.1 Valve protection.

Valve outlets capped or plugged

5003.10.1 Valve protection.
Valve outlets capped or plugged



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Chapter 50 Hazardous Materials

5003.10.2 Carts and trucks required

Exceeding 5 gallons
In a *corridor* or enclosure for a stairway or ramp
Shall be transported on a cart or truck.



5003.10.2 Carts and trucks required
Exceeding 5 gallons
In a *corridor* or enclosure for a stairway or ramp
Shall be transported on a cart or truck.

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Chapter 50 Hazardous Materials

5003.11.3.11
 Storage Plan illustrating the intended storage arrangement ,including location and dimensions of aisles, and storage racks shall be provided

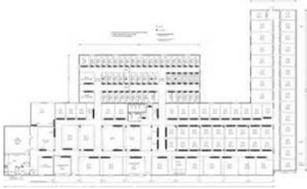


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5003.11 Group M and S Hazardous Material

5003.11.3.11 Storage plan required



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Chapter 50 Hazardous Materials

5003.12 Outdoor control areas.
 Not exceeding the maximum allowable quantity

1. Shall be kept free from weeds for a minimum of 15 feet
2. Not closer than 20 feet from a lot line
3. Exceeds 10,000 square feet, additional outdoor *control areas* is allowed
4. Exceeds 35,000 square feet additional *control areas* separated by a minimum distance of 300 feet

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Hazardous Materials

Chapter 50
Provides "General Provisions" and ALWAYS applies

Chapters 51 - 67
Pertain to specific materials and will apply based on the presents of and quantity of the specific materials

As the inspector you have to know what hazardous materials are at the site and use the appropriate chapters

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Hazardous Materials

Chapters 51 – 67
Establish criteria for regulating **specific** materials
The CEO must identify which chapter would be needed for inspection
Chapters set construction and operational requirements
Each Chapter requires an OPERATIONS PERMIT

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<p>Chapter 51 Aerosols</p> <p>Chapter 53 Compressed Gases</p> <p>Chapter 54 Corrosive Materials</p> <p>Chapter 55 Cryogenic Fluids</p> <p>Chapter 56 Explosives and Fireworks</p> <p>Chapter 57 Flammable and Combustible Liquids</p> <p>Chapter 58 Flammable Gases and Flammable Cryogenic Fluids</p> <p>Chapter 59 Flammable Solids</p> <p>Chapter 60 Highly Toxic and Toxic Materials</p>	<p>Chapter 61 Liquefied Petroleum Gases</p> <p>Chapter 62 Organic Peroxides</p> <p>Chapter 63 Oxidizers, Oxidizing Gases, and Oxidizing Cryogenic Fluids</p> <p>Chapter 64 Pyrophoric Materials</p> <p>Chapter 65 Pyroxylin Plastics</p> <p>Chapter 66 Unstable Materials</p> <p>Chapter 67 Water-Reactive Solids and Liquids</p>
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Chapter 56 Section 5610

Made legal in accordance with Section 270 of NYS Penal Law December 21, 2014




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Sparkling Devices

15. 2015 IFC Chapter 56 (Explosives and fireworks).
Chapter 56 of the 2015 IFC shall be amended by the addition of a new Section 5610 to read as follows:



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Sparkling Devices

14. 2015 IFC Section 5601.1 (Scope).
Section 5601.1 of the 2015 IFC shall be deemed to be amended by the addition of the following section in its entirety:

5610.1 Scope.
This section shall govern the possession, manufacture, storage, handling, sale, and use of sparkling devices and any building where sparkling devices are manufactured, stored, handled, sold or used

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2016
Building
Code
Requirements

Sparkling Devices

Section 270.00 of the New York State Penal Law

- Defines “sparkling devices”
 - Hand held
 - Shower of white, gold or colored sparks
 - Crackling effect, whistle effect, colored flame and smoke
- Does **not** include Devices that:
 - Rise in the air
 - Fire inserts or projectiles
 - Explode or produce a report



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Sparkling Devices

Section 156h

Registration and fees

- Manufacturers, distributors, wholesalers, permanent retailers and temporary seasonal retailers.

Time frame for sales

- **Temporary seasonal retailer**
 - June 20 – July 5
 - December 10 – January 2

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Sparkling Devices

NYS General Business Law
Section 392-j

Sales of sparkling devices

- June 1 – July 5
- December 26 – January 2

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9C16

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Sparkling Devices

5610.6 Retail sales.

- No display of sparkling devices or offer sparkling devices for sale upon highways, sidewalks or public property or in a Group A or E occupancy.
- Fire extinguisher shall be located not more than 15 feet and not less than 10 feet where sparkling devices are stored or displayed
- No smoking signs shall be conspicuously posted

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Chapter 61 LPG

6103.2.1 Portable containers.
Shall not be used in buildings except as specified in NFPA 58 and Sections 6103.2.1.1 through 6103.2.1.7.

6103.2.1.1 Use in basement, pit or similar location.
Shall not be used, where heavier-than-air gas might collect

Exception: Use with self-contained torch assemblies in accordance with Section 6103.2.1.6.



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Chapter 61 LPG

6109.4 Separation from means of egress.
Stored in buildings
Shall not be located near *exit access* doors, *exits*, *stairways* or in areas normally used, or intended to be used, as a *means of egress*.

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Chapter 61 - LPG

6109- Storage of Portable LP-Gas Containers Awaiting Sale or Re-use

6109.12 Location of storage outside of buildings.
Storage outside of buildings of LP-gas containers awaiting use, resale or part of a cylinder exchange program shall be located in accordance with Table 6109.12.



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Table 6109.12

TABLE 6109.12
SEPARATION FROM EXPOSURES OF LP-GAS CONTAINERS AWAITING USE,
RESALE OR EXCHANGE STORED OUTSIDE OF BUILDINGS

QUANTITY OF LP-GAS STORED (pounds)	MINIMUM SEPARATION DISTANCE FROM STORED LP-GAS CYLINDERS TO (feet):						
	Nearest important building or group of buildings or line of adjoining property that may be built upon	Line of adjoining property occupied by schools, places of religious worship, hospitals, athletic fields or other points of public gathering; busy thoroughfares; or sidewalks	LP-gas dispensing station	Doorway or opening to a building with two or more means of egress	Doorway or opening to a building with one means of egress	Combustible materials	Motor vehicle fuel dispenser
720 or less	0	0	5	5	10	10	20
721 – 2,500	0	10	10	5	10	10	20
2,501 – 6,000	10	10	10	10	10	10	20
6,001 – 10,000	20	20	20	20	20	10	20
Over 10,000	25	25	25	25	25	10	20

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You're the Inspector



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How many pounds of propane ?

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Seven – twenty pound bottles per shelf, three shelves per unit , five units

2,100 pounds

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**TABLE 6109.12
SEPARATION FROM EXPOSURES OF LP-GAS CONTAINERS AWAITING USE,
RESALE OR EXCHANGE STORED OUTSIDE OF BUILDINGS**

QUANTITY OF LP-GAS STORED (pounds)	MINIMUM SEPARATION DISTANCE FROM STORED LP-GAS CYLINDERS TO (feet):						
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720 or less	0	0	5	5	10	10	20
721 – 2,500	0	10	10	5	10	10	20
2,501 – 6,000	10	10	10	10	10	10	20
6,001 – 10,000	20	20	20	20	20	10	20
Over 10,000	25	25	25	25	25	10	20

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You're the Inspector



You find a portable LP –Gas display located next to a fire door. The structure has four means of egress. The cabinet has 18 , twenty pound gas containers in it.

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You're the Inspector



Non-Compliant

**Code Violation:
6109.4 Separation
from Means of
Egress**

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You're the Inspector

Same structure,
looking from the side.

Same Violation? **Yes, 6109.4
Separation from
Means of Egress**

Any others?
**Yes, 6109.2-
Exposure Hazards**



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You're the Inspector

5705.5 # 3

The dispensers shall
not be installed above,
below, or closer than 1
inch to an electrical
receptacle, switch



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You're the Inspector

Code Violation?



Maybe, 6107.2
Smoking and other
sources of Ignition

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AND CODES

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You're the Inspector



You are inspecting a factory that has a NFPA 13 sprinkler system. You enter a storage control area that has 1200 liquid gallons of Hydrogen Peroxide 33% solution. The material is in the proper safety containers.

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Hydrogen Peroxide 33% solution

Appendix E Section E102.1.7 Oxidizers

E 102.1.7.1 Examples of liquid and solid oxidizers



Hydrogen Peroxide (greater than 27.5 % up to 55%
Class 2

Now I can go to Table 5003.1.1 (1)

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Lesson 10 Existing Building Code



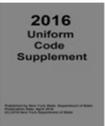

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Building Standards
and Codes



Building Standards
and Codes



**Chapter 1
and
Chapter 9**



**Chapters 2 -15
Appendix A
and
Resource A**

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Why an Existing Building Code?

Encourage the use and reuse of existing buildings while requiring reasonable upgrades and improvement

- Life safety related
 - Fire protection systems
 - Vertical openings
 - Unsafe interior finishes
 - Means of egress
 - Accessibility
 - Structural system



Before



After

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Building Standards
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Chapter 1

101.2 Scope. The provisions of the Uniform Code shall apply to all new and existing buildings, structures, systems and equipment as indicated in Sections 101.2.1 through 101.2.8, with the following exceptions:



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Chapter 1 Section 101.2

Exceptions:

- Structures, systems and equipment lawfully in existence at the time of adoption of the Uniform Code shall be permitted to continue, provided that the use is in accordance with the original design and no hazard to life, health or property is created by such structure, system or equipment and **except** when provisions of the 2015 IRC, 2015 IBC, 2015 IPC, 2015 IMC, 2015 IFGC, 2015 IFC, 2015 IPMC, and **2015 IEBC** specifically apply to existing buildings.



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Chapter 1 Section 101.2

- Additions, alterations, renovations or repairs to any structure, system or equipment shall conform to that required for new construction without requiring the existing structure, system or equipment to comply with all of the requirements of the Uniform Code.
AND shall not cause an existing structure, system or equipment to become unsafe, unsanitary, hazardous or overloaded.



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Chapter 1

101.2.8 Scope.
 Shall apply to the repairs, alterations, change of occupancy, additions and relocation of existing buildings

Exceptions:

1. Detached one and two family dwellings, townhouses not more than three stories above grade plane and one family dwellings , owner occupied bed and breakfast dwellings
2. Agricultural Buildings.





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Chapter 1

101.2.8.1 Compliance Methods. The repair, alteration, change of occupancy, addition, or relocation of all existing buildings shall comply with one of the methods listed in Section 301 of the 2015 IEBC

Exception: Alterations complying with laws in existence at the time the building

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Chapter 1

101.2.8.2 Energy Conservation. Energy conservation measures in existing buildings shall be in conformance with Chapter 5 Commercial Energy or Chapter 5 Residential Energy of the Energy Conservation Code, as applicable.

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Chapter 1

101.2.8.3 Addition, alterations and repairs

- Shall conform to that required by the 2015 IEBC without requiring the existing structure to comply with all the requirements of said code, unless otherwise stated.
- Additions, alterations or repairs shall not cause an existing structure to become unsafe or adversely affect the performance of the building

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Chapter 1

101.2.8.4 Carbon monoxide alarms and detectors in existing buildings.

Carbon monoxide alarms and detectors shall comply with the 2015 IFC.



IFC Section 915 has been amended by the Supplement

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Chapter 9

Amendments to the 2015 IEBC

Section 805.3.1.1 of the 2015 IEBC shall be deemed to be amended by the replacement of the section in its entirety and addition of the following tables:

805.3.1.1 Single-exit buildings. Only one exit is required from buildings and stories of the following occupancies:

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Using the EBC

- The type of activity, or “work” to be completed must be evaluated.
- The type of work will determine what level of compliance is required
 - Example: patching a hole in a plaster and lath wall made by throwing the code book – REPAIR – see Chapter 6
 - Example: replacing dry wall that has been damaged due to a flood – Level 1 Alteration – see Chapter 7.
- The legal occupancy of an *existing building* can continue. (NYS 102.8)

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Existing Building Code Table of Contents

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Chapter 2 Definitions

APPROVED. Acceptable to the *code official* or authority having jurisdiction.

Accept a specific installation or component as complying with the code.

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Chapter 2 Definitions



DANGEROUS.

1. The building or structure has collapsed, has partially collapsed, has moved off its foundation.
2. A significant risk of collapse, detachment or dislodgement of any portion, member, appurtenance or ornamentation

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Chapter 2 Definitions

PRIMARY FUNCTION. A *primary function* is a major activity for which the facility is intended. include,

- The customer services lobby of a bank,
- The dining area of a cafeteria,
- The meeting rooms in a conference center,
- As well as offices and
- Other work areas in which the activities of the public accommodation or other private entity using the facility are carried out.

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Chapter 2 Definitions

SUBSTANTIAL DAMAGE.

Damage of any origin sustained by a structure whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.





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Chapter 2 Definitions

SUBSTANTIAL STRUCTURAL DAMAGE.

1. The lateral load-carrying capacity of the structure in any horizontal direction has been reduced by more than 33 percent from its pre-damage condition.
2. All dead and live load capacity is less than 75 percent of that required by this code for new buildings of similar structure, purpose and location.

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Chapter 2 Definitions

TECHNICALLY INFEASIBLE. An *alteration* of a facility that has little likelihood of being accomplished because

- The existing structural conditions require the removal or *alteration* of a load-bearing member that is an essential part of the structural frame, or
- Because other existing physical or site constraints prohibit modification or addition of elements, which are in full and strict compliance with the minimum requirements for new construction and which provide accessibility.

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Chapter 2 Definitions

WORK AREA. That portion of a building consisting of all reconfigured spaces as indicated on the construction documents.

Work area excludes other portions where incidental work must be performed and portions of the building where work is specifically required by this code.

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Chapter 3 Compliance Methods

Prescriptive method. Chapter 4
Work area method. Chapters 5 through 13
Performance method. Chapter 14

It is intended that one method of compliance is chosen and applied in whole.

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Chapter 3 Compliance Provisions

- **301.1 General.** The *repair, alteration, change of occupancy, addition* or relocation of all *existing buildings* shall comply with one of the methods listed in Sections 301.1.1 through 301.1.3 as selected by the applicant. Sections 301.1.1 through 301.1.3 shall not be applied in combination with each other.

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Chapter 3 Compliance Methods

301.1.1 Prescriptive compliance method. *Repairs, alterations, additions and changes of occupancy* complying with Chapter 4 of this code in buildings complying with the *International Fire Code*



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Chapter 3 Compliance Methods

301.1.2 Work area compliance method. *Repairs, alterations, additions*, changes in occupancy and relocated buildings complying with the applicable requirements of Chapters 5 through 13

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Chapter 3 Compliance Methods

301.1.3 Performance compliance method. *Repairs, alterations, additions*, changes in occupancy and relocated buildings complying with Chapter 14 of this code

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Chapter 4 Prescriptive Compliance Method

401.1 Scope. This chapter shall control the *alteration, repair, addition and change of occupancy* or relocation of *existing buildings* and structures, including *historic buildings*

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Chapter 4 Prescriptive Compliance Method

401.1.1 Compliance with other methods. *Alterations, repairs, additions and changes of occupancy to or relocation of, existing buildings and structures shall comply with the provisions of this chapter or with one of the methods provided in Section 301.1.*



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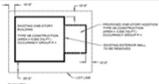
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Chapter 4 Prescriptive Compliance Method- Additions

402.1 General. *Additions to any building or structure shall comply with the requirements of the International Building Code for new construction*

- The *existing building* or structure together with the *addition* are no less conforming
- Comply with the height and area provisions of Chapter 5 of the *International Building Code*.



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Chapter 4 Prescriptive Compliance Method

402.5 Smoke alarms in existing portions of a building.

- Where an *addition* is made to a building or structure of a Group R or I-1 occupancy, the *existing building* shall be provided with smoke alarms in accordance with Chapter 7 Section 1103 of the Supplement.



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Chapter 4 Prescriptive Compliance Method- Alterations

403.1 General. *Alterations* to any building or structure shall comply with the requirements of the *International Building Code* for new construction.

Alterations shall be such that the *existing building* is no less conforming to the provisions of the *International Building Code* than the *existing building* was prior to the *alteration*.

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Chapter 4 Prescriptive Compliance Method- Alterations

403.10 Smoke alarms.

Individual sleeping units and individual dwelling units in Group R and I-1 occupancies shall be provided with smoke alarms in accordance with Chapter 7 Section 1103 of the *Supplement*.

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Chapter 4 Prescriptive Compliance Method- Repairs

404.1 General. Buildings shall be repaired in compliance with Sections 401.2 and 404.

Work on non-damaged components that is necessary for the required *repair* of damaged components shall be considered part of the *repair* and shall not be subject to the requirements for *alterations* in this chapter.

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Chapter 4 Prescriptive Compliance Method- Fire Escapes

FIRE ESCAPES

405.1 Where permitted. Fire escapes shall be permitted only as provided for in Sections 405.1.1 through 405.1.4.





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Chapter 4 Prescriptive Compliance Method- Fire Escapes

405.1.1 New buildings. Fire escapes shall not constitute any part of the required means of egress in new buildings.

405.1.2 Existing fire escapes. Existing fire escapes shall continue to be accepted as a component in the means of egress in existing buildings only.





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Chapter 4 Prescriptive Compliance Method- Fire Escapes

405.1.4 Limitations. Fire escapes shall comply with this section and shall not constitute more than 50 percent of the required number of exits nor more than 50 percent of the required exit capacity.



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Chapter 4 Prescriptive Compliance Method- Replacement Windows

406.3 Replacement window emergency escape and rescue openings. Where windows are required to provide *emergency escape and rescue openings* in Group R-2 and R-3 occupancies, replacement windows shall be exempt from the requirements of Sections 1030.2, 1030.3 and 1030.5 provided the replacement window meets the following conditions:



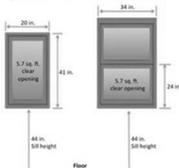
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Chapter 4 Prescriptive Compliance Method- Replacement Windows

- The replacement window is the manufacturer's largest standard size window that will fit within the existing frame or existing rough opening.
- Operating Style, equal or greater opening area
- The replacement of the window is not part of a change of occupancy.

Egress Code: Minimum Size Requirements





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Chapter 4 Prescriptive Compliance Method- Change of Occupancy

407.1 Conformance. No change shall be made in the use or occupancy of any building unless such building is made to comply with the requirements of the *IBC*

- The existing building is **no less complying** with the provisions of this code than the existing building was prior to the change.
- *Existing buildings* shall be permitted to be changed without conforming to all requirements provided the new or proposed use is **less** hazardous, based on life and fire risk, than the existing use.



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 **Chapter 4 Prescriptive Compliance Method- Historic Buildings**

408.1 Historic buildings. The provisions that require improvements relative to a building's existing condition or, in the case of repairs, that require improvements relative to a building's pre-damage condition, shall not be mandatory for historic buildings unless specifically required by this section.

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 **Chapter 4 Prescriptive Compliance Method- Historic Buildings**

408.2 Life safety hazards. The provisions of this code shall apply to historic buildings judged by the building official to constitute a distinct life safety hazard.

- structural instability or
- blocked or severely limited exits



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 **Chapter 4 Prescriptive Compliance Method- Moved Buildings**

409.1 Conformance. Structures moved shall comply with the provisions of the *IBC* for new structures.



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Chapter 4 Prescriptive Compliance Accessibility

410.1 Scope. The provisions of Sections 410.1 through 410.9 apply to maintenance, *change of occupancy*, *additions* and *alterations to existing buildings*, including those identified as *historic buildings*.

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Chapter 4 Prescriptive Compliance Accessibility

410.2 Maintenance of facilities.
A *facility* that is constructed or altered to be *accessible* shall be maintained *accessible* during occupancy.



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Chapter 4 Prescriptive Compliance Accessibility

410.3 Extent of application. An *alteration* of an existing *facility* shall not impose a requirement for greater accessibility than that which would be required for new construction.
Alterations shall not reduce accessibility of a *facility* or portion of a *facility*.

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Chapter 4 Prescriptive Compliance Accessibility

410.4.1 Partial change in occupancy.

Where a portion of the building is changed to a new occupancy classification, any *alterations* shall comply with Sections 410.6, 410.7 and 410.8.

Spaces or elements being altered will meet new accessibility provisions **unless technically infeasible**

A limit to the cost of the additional improvements to a maximum of 20 percent of the cost of the alteration



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Chapter 4 Prescriptive Compliance Accessibility

TECHNICALLY INFEASIBLE:
An *alteration* that has little likelihood of being accomplished because: the existing structural conditions or because other existing physical or site constraints




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Chapter 4 Prescriptive Compliance Accessibility

410.4.2 Complete change of occupancy.

Where an entire building undergoes a *change of occupancy*, shall have all of the following accessible features:

1. At least one accessible building entrance.
2. At least one accessible route from an accessible building entrance to *primary function* areas.
3. Signage complying with Section 1111 of the *International Building Code*.



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Chapter 4 Prescriptive Compliance Accessibility

4. Accessible parking, where parking is being provided.
5. At least one accessible passenger loading zone, when loading zones are provided.
6. At least one accessible route connecting accessible parking and loading zones to an accessible entrance.

Where it is *technically infeasible* the above items shall conform to the requirements to the maximum extent technically feasible.

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Chapter 4 Prescriptive Compliance Accessibility

410.6 Alterations. Where compliance with this section is *technically infeasible*, the *alteration* shall provide access to the maximum extent technically feasible.

Exceptions:

- The altered element or space is not required to be on an accessible route, unless required by Section 410.7.
- 2. Accessible means of egress required by Chapter 10 of the *International Building Code* are not required to be provided in existing facilities.

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Chapter 4 Prescriptive Compliance

3. The alteration to Type A individually owned dwelling units within a Group R-2 occupancy shall be permitted to meet the provision for a Type B dwelling unit.
4. Type B dwelling or sleeping units required by Section 1107 of the *IBC* are not required to be provided in *existing buildings* and facilities undergoing a *change of occupancy* in conjunction with *alterations* where the work area is 50 percent or less of the aggregate area of the building.

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Chapter 4 Prescriptive Compliance Accessibility

410.7 Alterations affecting an area containing a primary function.

- The route to the *primary function* area shall be *accessible*.
- The accessible route to the *primary function* area shall include toilet facilities and drinking fountains serving the area of *primary function*.



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Chapter 4 Prescriptive Compliance Accessibility

410.7 Alterations affecting an area containing a primary function.

Exceptions:

- 1. The costs are not required to exceed 20 percent of the costs of the *alterations* affecting the area of *primary function*.



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Chapter 4 Prescriptive Compliance

Does not apply to

2. *alterations* limited solely to windows, hardware, operating controls, electrical outlets and signs.
3. Mechanical systems, electrical systems, installation or *alteration* of fire protection systems and abatement of hazardous materials or
4. To *alterations* undertaken for the primary purpose of increasing the accessibility of a *facility*.
5. This provision does not apply to altered areas limited to Type B dwelling and sleeping units.



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 **Chapter 4 Prescriptive Compliance Accessibility**

410.8 Scoping for alterations.
 The provisions of Sections 410.8.1 through 410.8.14 shall apply to *alterations to existing buildings and facilities.*



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 **Chapter 4 Prescriptive Compliance Accessibility**

410.8.1 Entrances. *Accessible* entrances shall be provided in accordance with Section 1105.
Exception: Where an *alteration* includes alterations to an entrance, and *The facility has an accessible entrance,* The altered entrance is not required to be *accessible,* unless required by Section 410.7.



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 **Chapter 4 Prescriptive Compliance Accessibility**

410.8.3 Platform lifts.
 Platform (wheelchair) lifts complying with ICC A117.1 and installed in accordance with ASME A18.1 shall be permitted as a component of an accessible route.



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Chapter 4 Prescriptive Compliance Accessibility

410.9 Historic buildings. These provisions shall apply, unless *technically infeasible*.

Where compliance with the requirements for accessible routes, entrances or toilet rooms would threaten or destroy the historic significance of the *facility*, the alternative requirements of Sections 410.9.1 through 410.9.4 for that element shall be permitted

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Chapter 4 Prescriptive Compliance Accessibility

410.9.1 Site arrival points.

At least one accessible route from a site arrival point to an accessible entrance shall be provided.



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Chapter 4 Prescriptive Compliance Accessibility

410.9.3 Entrances. At least one main entrance shall be accessible or

1. An accessible nonpublic entrance that is unlocked while the building is occupied shall be provided; or
2. A locked accessible entrance with a notification system or remote monitoring shall be provided.

Signage required

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Chapter 4 Prescriptive Compliance Accessibility



410.9.4 Toilet and bathing facilities. Where toilet rooms are provided, at least one accessible family or assisted-use toilet room complying with Section 1109.2.1 of the **IBC** shall be provided.

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IBC Accessible Definition

Types of Accessible Dwelling Units
Accessible: Full Accessibility

Type A: Some elements installed, some could be installed later

Type B: Lowest level of accessibility, some areas can be NON-accessible

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Work Area Compliance Method
 • Chapters 5 thru 13

Chapter 5 Classification of Work

- Chapter 6 Repairs
- Chapter 7 Alterations Level 1
- Chapter 8 Alterations Level 2
- Chapter 9 Alterations Level 3
- Chapter 10 Change of Occupancy
- Chapter 11 Additions
- Chapter 12 Historic Buildings
- Chapter 13 Relocated Buildings

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Chapter 5 Classification of Work

501.1 Scope.

The provisions of this chapter shall be used in conjunction with Chapters 6 through 13 and shall apply to *alteration, repair, addition and change of occupancy*, including historic and moved structures.

The work performed on an *existing building* shall be classified in accordance with this chapter.

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Chapter 5 Classification of Work

501.2 Work area.

The *work area* shall be identified on the construction documents.

Definition:
WORK AREA: Portion or portions of a building consisting of all reconfigured spaces as indicated on the construction documents.

EXCLUDING portions where incidental work must be performed.

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Chapter 5 Classification of Work



502.1 Scope. Repairs

Definition: Restoration of any part of an existing building for the purpose of its maintenance

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Chapter 5 Classification of Work



503.1 Scope. Level 1 alterations
Removal and replacement or the covering of existing materials, elements, equipment, or fixtures using new materials, elements, equipment, or fixtures that serve the same purpose.

503.2 Application.
Level 1 *alterations* shall comply with the provisions of Chapter 7.

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Chapter 5 Classification of Work

504.1 - Level 2 alterations
include the reconfiguration of space, the addition or elimination of any door or window, the reconfiguration or extension of any system, or the installation of any additional equipment.

504.2 Application.
Level 2 *alterations* shall comply **Chapter 7 and Chapter 8.**

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Chapter 5 Classification of Work

505.1 - Level 3 alterations
Where the *work area* exceeds 50 percent of the **aggregate** area of the building.

505.2 Application.
Level 3 *alterations* shall comply with **Chapters 7, 8 and 9.**

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As the alterations become more complex, additional requirements apply

Level 1
Chapter 7

Level 2
Chapters 7 & 8

Level 3
Chapters 7, 8 and 9

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Chapter 5 Classification of Work

Before
After

506.1 Change of occupancy
Provisions apply where the activity is classified as a *change of occupancy*

506.2- Changes of occupancy
Shall comply with **Chapter 10.**

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Chapter 5 Classification of Work

507.1 Additions
Shall apply where work is classified as an *addition*

507.2 Application.
Additions to existing buildings shall comply Chapter 11.

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Chapter 5 Classification of Work



508.1 Historic building
Provisions shall apply to buildings classified as *historic*

508.2 Application.
Except as specifically provided for in Chapter 12, historic buildings shall comply with applicable provisions of this code for the type of work being performed.

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Definition



HISTORIC BUILDING

1. Listed, or certified as eligible for listing, by the State Historic Preservation Officer or the Keeper of the National Register of Historic Places, in the National Register of Historic Places.
2. Designated as historic under an applicable state or local law.
3. Certified as a contributing resource within a National Register, state designated or locally designated historic district.

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Chapter 5 Classification of Work



509.1 - Relocated building
Shall apply to relocated or moved buildings.

509.2 Application.
Relocated buildings shall comply with Chapter 13.

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Chapter 6 Repairs

601.1 Scope.
Repairs shall comply with the requirements of this chapter. Repairs to *historic buildings* need only comply with Chapter 12.

601.2 Conformance.
The work shall **not** make the building less conforming than it was before the *repair* was undertaken.



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Chapter 6 Repairs

603 Fire Protection
Provide the same level of protection

604 Means of egress
Maintain the level of protection

605 Accessibility
Maintain the level of accessibility



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Chapter 6 Repairs

606.1 General.
Dangerous conditions shall be eliminated.
Shall comply with the *International Building Code*

The definition of "Dangerous" in Section 202

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Chapter 2 Definitions

Reminder



DANGEROUS.

1. The building or structure has collapsed, has partially collapsed, has moved off its foundation.
2. A significant risk of collapse, detachment or dislodgement of any portion, member, appurtenance or ornamentation

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Chapter 6 Repairs

607.1 Material. Existing electrical wiring and equipment undergoing *repair* shall be allowed to be repaired or replaced with like material.

607.1.1 Receptacles. Replacement of electrical receptacles shall comply with the applicable requirements of Section 406.4(D) of **NFPA 70**.






CHAPTER 7 ALTERATIONS

LEVEL 1

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CHAPTER 7 ALTERATIONS – LEVEL 1

701.1 Scope. Level 1 *alterations* as described in Section 503 shall comply with the requirements of this chapter.
Level 1 *alterations* to *historic buildings* shall comply with this chapter, except as modified in Chapter 12.

503.1 Scope.
Level 1 alterations include the removal and replacement or the covering of existing materials, elements, equipment, or fixtures using new materials, elements, equipment, or fixtures that serve the same purpose.

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CHAPTER 7 ALTERATIONS – LEVEL 1

701.2 Conformance.
Shall not be altered such that the building becomes less safe than its existing condition.
Exception: Where the current level of safety or sanitation is proposed to be reduced, the portion altered shall conform to the requirements of the *IBC*.

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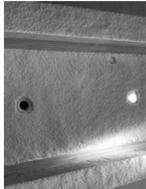


CHAPTER 7 ALTERATIONS – LEVEL 1

702.1 Interior finishes. Shall comply with Chapter 8 of the *IBC*

702.2 Interior floor finish. Shall comply with Section 804 of the *IBC*

702.3 Interior trim. Shall comply with Section 806 of the *IBC*



Let's look at Table 803.11

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CHAPTER 7 ALTERATIONS – LEVEL 1

702.5 Emergency escape and rescue openings
 in Group R-2 and R-3 occupancies and one- and two-family dwellings and townhouses regulated by the *IRC*, replacement windows shall be exempt from the requirements of Sections 1030.2, 1030.3 and 1030.5 of the *IBC* and Sections R310.2.1 and R310.2.3 of the *IRC*
Provided the replacement window is the largest standard size window that will fit within the existing frame or existing rough opening

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CHAPTER 7 ALTERATIONS – LEVEL 1

703.1 General.
Alterations shall maintain the level of fire protection provided.

704.1 General.
Alterations shall maintain the level of protection provided for the means of egress.

705.1 General. Accessibility *alterations* shall comply with the applicable provisions in Sections 705.1.1 through 705.1.14, and Chapter 11 of the *IBC* unless it is *technically infeasible*

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CHAPTER 7 ALTERATIONS – LEVEL 1



706.1 General (Reroofing)
 Shall comply with the requirements of Chapter 15 of the *IBC*

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**CHAPTER 7 ALTERATIONS –
LEVEL 1**

706.3 Recovering versus replacement.
New roof coverings shall not be installed without first removing all existing layers of roof coverings down to the roof deck where:

1. Where the existing is water soaked or deteriorated and is not adequate as a base for additional roofing.
2. Where the existing roof covering is wood shake, slate, clay, cement or asbestos-cement tile.
3. Where the existing roof has two or more applications of any type of roof covering.

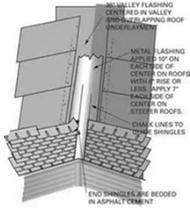
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**CHAPTER 7 ALTERATIONS –
LEVEL 1**



706.6 Flashings.
Flashings shall be reconstructed in accordance with manufacturer's installation instructions.



VALLEY FLASHING CENTERED IN VALLEY AND BEING BEDDED IN ASPHALT CEMENT
METAL FLASHING CENTERED ON ROOF WITH 6 INCHES ON EACH SIDE OF CENTER ON ROOF. END SHINGLES ARE BEDDED IN ASPHALT CEMENT.

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**CHAPTER 7 ALTERATIONS –
LEVEL 1**

708.1 Minimum requirements.
Alterations to existing buildings or structures are permitted without requiring the entire building or structure to comply with the energy requirements of the International Energy Conservation Code

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CHAPTER 8 ALTERATIONS – LEVEL 2

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CHAPTER 8 ALTERATIONS – LEVEL 2

801.1 Scope.
Level 2 *alterations* include

- The reconfiguration of space,
- The addition or elimination of any door or window,
- The reconfiguration or extension of any system, or
- The installation of any additional equipment.

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Level 2 Alterations

EXISTING

Level 2 Alteration

ALTERED

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CHAPTER 8 ALTERATIONS – LEVEL 2

801.2 Alteration Level 1 compliance.
In addition to the requirements of this chapter, all work shall comply with the requirements of Chapter 7.

Level 2 to needs compliance with Chapters 7 and 8

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CHAPTER 8 ALTERATIONS – LEVEL 2

801.3 Compliance. Shall comply with the requirements of the *International Building Code*.

Exceptions:

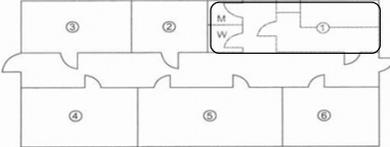
1. Windows may be added without compliance with the light and ventilation requirements of the *IBC*.
2. Newly installed electrical equipment shall comply with Section 808.
3. The length of dead-end corridors shall comply with Section 805.6.
4. The minimum ceiling height shall be 7 feet.

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Level 2 Alterations



803 Building elements and materials
The requirements of this section are limited to the “work area”, **unless otherwise specified**

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**CHAPTER 8 ALTERATIONS –
LEVEL 2**

803.2.1 Existing vertical openings. All existing interior vertical openings connecting two or more floors shall be enclosed with assemblies having a fire-resistance rating of not less than 1 hour with approved opening protectives.

Exceptions:
There are 14 exceptions

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**CHAPTER 8 ALTERATIONS –
LEVEL 2**

803.2.2 Supplemental shaft and floor opening enclosure requirements. Where the work area on any floor exceeds 50 percent of that floor area, the enclosure requirements of *Section 803.2* shall apply to vertical openings other than stairways.

Exception: Vertical openings located in tenant spaces that are entirely outside the *work area*.

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803.2.2 Supplemental shaft and floor opening enclosure requirements.

work area on any floor exceeds 50 percent of that floor area

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**CHAPTER 8 ALTERATIONS –
LEVEL 2**

803.2.3 Supplemental stairway enclosure requirements.
The *work area* on any floor exceeds 50 percent of that floor area,

- Stairways that are part of the means of egress serving the *work area* shall, at a minimum,
- Be enclosed with smoke-tight construction on the highest *work area* floor and all floors below.

Exception: Where stairway enclosure is not required by the *IBC* or the *IFC*

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Level 2 Alterations

803.2.3 Supplemental stairway enclosure requirements.
Exceeds 50 percent of that floor area, enclosed with smoke-tight construction on the highest *work area* floor and all floors below.



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**CHAPTER 8 ALTERATIONS –
LEVEL 2**

FIRE PROTECTION

804.1 Scope. The requirements of this section shall be limited to work areas in which Level 2 *alterations* are being performed, and where specified they shall apply throughout the floor on which the *work areas* are located or otherwise beyond the *work area*.

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CHAPTER 8 ALTERATIONS – LEVEL 2

804.2 Automatic sprinkler systems. Automatic sprinkler systems shall be provided in accordance with Sections 804.2.1 through 804.2.5.

- High Rise Buildings
- Groups A,E,F-1,H,I,M,R-1,R-2,R-4,S-1 and S-2
- Windowless Stories
- Listed on Table 903.2.11.6

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CHAPTER 8 ALTERATIONS – LEVEL 2

804.2.1 High-rise buildings. work areas that have exits or corridors shared by more than one tenant or That have exits or corridors serving an occupant load greater than 30 Shall be provided with automatic sprinkler protection in the entire *work area* where the *work area* is located on a floor that has a sufficient sprinkler water supply system

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CHAPTER 8 ALTERATIONS – LEVEL 2

804.2.2 Groups A, B, E, F-1, H, I, M, R-1, R-2, R-4, S-1 and S-2. Work areas that have exits or corridors shared by more than one tenant or that have exits or corridors serving an occupant load greater than 30 shall be provided with sprinklers where all of the following conditions occur:

1. The *work area* is required to be sprinklered in accordance with the *IBC* as applicable to new construction; and
2. The *work area* exceeds 50 percent of the floor area.

EXCEPTION:

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CHAPTER 8 ALTERATIONS – LEVEL 2

804.2.2 Groups A, B, E, F-1, H, I, M, R-1, R-2, R-4, S-1 and S-2.

Exception: If the building does not have sufficient municipal water supply available to the floor without installation of a new fire pump, work areas shall be protected by an automatic smoke detection system throughout all occupiable spaces other than sleeping units or individual dwelling units in accordance with Sections 907.4, 907.5 and 907.6 of the *IBC*.

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CHAPTER 8 ALTERATIONS – LEVEL 2

2015 IEBC Section 805.3.1.1 (Single-exit buildings).

Section 805.3.1.1 of the 2015 IEBC shall be deemed to be amended by the replacement of the section in its entirety and addition of the following tables:

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TABLE 805.3.1.1(1)

GROUP B, S2 OR M LOCATED ON THE LEVEL OF EXIT DISCHARGE SINGLE EXIT BUILDING

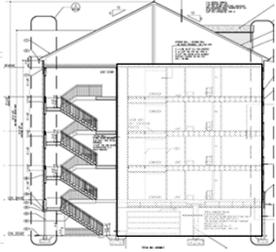
Required Building Features	Minimum Number of Stories Above Grade					
	1 and 2			3 and 4		
	No Sprinklers	Sprinklers	No Sprinklers	Sprinklers	No Sprinklers	Sprinklers
Required Occupancy	B, S2 or M	B, S2 or M	B or S2	B, S2 or M	B or S2	B or S2
Control instruction issued to escape or avoid display of hazardous materials within the building and exceeding 10% of the maximum allowable quantities in IBC Table 407.1.1	Yes	Yes	Yes	Yes	Yes	Yes
Minimum gross floor area per story (square feet)	3,500	3,500	3,500	3,500	3,500	3,500
Exit access travel distance (feet)	50	75	50	75	50	75
Clear egressway	Yes	No	Yes	Yes	Yes	Yes
Escape and rescue planning on each floor and accessible to each occupant	Yes	No	Yes	Yes	Yes	Yes
Fire protection rating of shaft and vertical exit enclosures (hours)	1	0.5	1	0.5	2	2
Fire protection rating of corridors (hours)	0.5	0	1	0.5	1	1
Fire protection rating of vertical openings (hours)	0.33	Self-Closing	0.75	0.33	0.75	0.75

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CHAPTER 9 ALTERATIONS LEVEL 3



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CHAPTER 9 ALTERATIONS – LEVEL 3

901.1 Scope. Level 3 *alterations* as described in Section 505 shall comply with the requirements of this chapter.

901.2 Compliance. In addition to the provisions of this chapter, work shall comply with all of the requirements of Chapters 7 and 8.



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CHAPTER 9 ALTERATIONS – LEVEL 3

505.1 Scope. Level 3 *alterations* apply where the work area exceeds 50 percent of the *building area*.

505.2 Application. Level 3 *alterations* shall comply with the provisions of Chapters 7 and 8 for Level 1 and 2 *alterations*, respectively, as well as the provisions of Chapter 9.



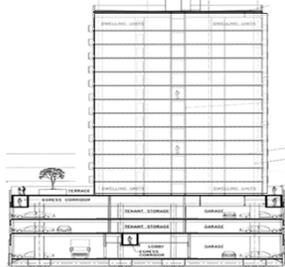
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Chapter 9 Alterations – Level 3

Work area exceeds 50% of the **aggregate** area of the building
Chapters 7, 8 and 9



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CHAPTER 9 ALTERATIONS – LEVEL 3

901.2 Compliance. The requirements of Sections 803, 804 and 805 shall apply within all *work areas* whether or not they include exits and corridors shared by more than one tenant and regardless of the occupant load.

Exception: Buildings in which the reconfiguration of space affecting exits or shared egress access is exclusively the result of compliance with the accessibility requirements of Section 705.2 shall not be required to comply with this chapter.

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CHAPTER 9 ALTERATIONS – LEVEL 3

902.1.2 Elevators. Where there is an elevator or elevators for public use, at least one elevator serving the *work area* shall comply with this section.

Existing elevators with a travel distance of 25 feet or more above or below the main floor or other level of a building and intended to serve the needs of emergency personnel shall be provided with emergency operation in accordance with ASME A17.3

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 **CHAPTER 9 ALTERATIONS – LEVEL 3**

903.1 Existing shafts and vertical openings.
Existing stairways that are part of the means of egress shall be enclosed in accordance with Section 803.2.1 from the highest work area floor to, and including, the level of exit discharge and all floors below.

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 **CHAPTER 9 ALTERATIONS – LEVEL 3**

904.1 Automatic sprinkler systems. An automatic sprinkler system shall be provided in a work area where required by Section 804.2 or this section.

904.1.1 High-rise buildings.

904.1.2 Rubbish and linen chutes

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 **CHAPTER 9 ALTERATIONS – LEVEL 3**

904.1.3 Upholstered furniture or mattresses. *Work areas* shall be provided with an automatic sprinkler system in accordance with the *IBC* where any of the following conditions exist:

1. A Group F-1 occupancy used for the manufacture of upholstered furniture or mattresses exceeds 2,500 square feet.
2. A Group M occupancy used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet.
3. A Group S-1 occupancy used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet.

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CHAPTER 9 ALTERATIONS – LEVEL 3

904.2 Fire alarm and detection systems.
Fire alarm and detection shall be provided in accordance with Section 907 of the *IBC* as required for new construction.

904.2.1 Manual fire alarm systems
904.2.2 Automatic fire detection

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CHAPTER 9 ALTERATIONS – LEVEL 3

905.2 Means-of-egress lighting.
From the highest *work area* floor to the floor of exit discharge shall be provided with artificial lighting in accordance with the *IBC*.

905.3 Exit signs.
From the highest *work area* floor to the floor of exit discharge shall be provided with exit signs in accordance with the *IBC*.

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CHAPTER 9 ALTERATIONS – LEVEL 3

908.1 Minimum requirements.
Level 3 *alterations* are permitted without requiring the entire building or structure to comply with the energy requirements of the *International Energy Conservation Code*.
The *alterations* shall conform to the energy requirements as they relate to new construction only.

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Lesson 10 Summary

- Compliance Methods Chapter 3**
- Prescriptive Compliance Method Chapter 4**
- Classification of work Chapter 5**
- Repairs Chapter 6**
- Alterations Level 1- compliance with Chapters 6 and 7**
- Alterations Level 2 Compliance with Chapters 6, 7, and 8**
- Alteration Level 3 Compliance with Chapters 6, 7, 8, and 9**

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Building Standards
and Codes



2016
Uniform
Code
Supplement



2015
IBC

Existing Building Code Lesson 11

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Lesson 11 Existing Building Code

Chapter 10 Change of Occupancy- Which Chapters do we use?
Chapter 11 Additions – Does the entire building have to comply?
Chapter 12 Historic Buildings- How can we preserve the historical nature and still be compliant?
Chapter 13 Relocated Buildings- Evaluating before and after.
Chapter 14 Performance Compliance Method

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October 24, 2016 Chapter 10 Change of Occupancy in an existing structure may change the level of inherent hazards addressed by the code. For example, a change from a mercantile occupancy to a business occupancy.



Chapter 10 Change of Occupancy

1001.1 Scope.
 This chapter shall apply where a *change of occupancy* occurs, as defined in Section 202 including:
 Occupancy classification is not changed or
 is a change in classification or group designation

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Chapter 10 Change of Occupancy

1001.2.1 Change in use with **no change of occupancy classification**.
Follow Sections 1002 through 1011
A restaurant changes to a nightclub – A-2 to an A-2

1001.2.2 Change of occupancy classification.
Where the occupancy classification of a building changes
Follow Sections 1002 through 1012 shall apply.
A hardware store becomes condominiums – M to a R

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Chapter 10 Change of Occupancy

1001.2.2.1 Partial change of occupancy.
Where the occupancy classification or group of a portion of
an *existing building* is changed, Section 1012 shall apply.

Sections 1012.1.1 and 1012.1.2 address a partial change of
occupancy for two options of separated and non-separated
conditions.

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Chapter 10 Change of Occupancy

1001.2.1 Change in use with no change of occupancy
classification. Follow Sections 1002 through 1011
BUT
1003.1 Building Elements
1004.1 Fire Protection
1005.1 Means of Egress
1006.1 Accessibility
These 4 sections require compliance with Section 1012,

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Chapter 10 Change of Occupancy

1012.1 General. Applies to buildings or portions thereof undergoing a change of occupancy classification. Where there is a different fire protection system threshold requirement in Chapter 9 of the *IBC*.

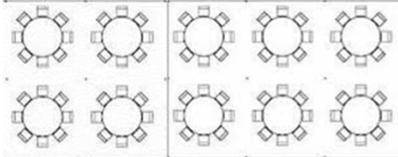
Such buildings shall also comply with Sections 1002 through 1011. The application of requirements for the change of occupancy shall be as set forth in Sections 1012.1.1 through 1012.1.4.

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Our Restaurant – A-2



BC Table 1004.1.1
1200 square feet - Occupant Load of 80

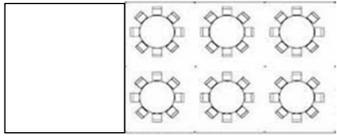
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A-2 Restaurant to A-2 Nightclub

Table 1004.1.1
960 sq ft seating = 64 people
Dance floor = 48 people
Total Occupant Load 112



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Chapter 10 Change of Occupancy

1012.1.1.1 Change of occupancy classification without separation.
 Shall comply with all of the requirements of Chapter 9 applied throughout the building for the most restrictive occupancy classification in the building and with this chapter.

1012.1.1.2 Change of occupancy classification with separation.
 That portion shall comply with all of the requirements of Chapter 9 for the new occupancy classification and with the requirements of this chapter.

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Chapter 10 Change of Occupancy

1012.1.3 Change of occupancy classification based on hazard category.
 shall be determined in accordance with the categories specified in Tables:

1012.4 Means of Egress
 1012.5 Heights and Areas
 1012.6. Exposure of Exterior Walls

HAZARD CATEGORIES

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Table 1012.4 Means of Egress

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	I-2, I-3, I-4
3	A, E, I-1, M, R-1, R-2, R-4
4	B, F-1, R-3, S-1
5 (Lowest Hazard)	F-2, S-2, U

1012.4.1 Change to higher hazard category.
 Comply with the requirements of Chapter 10 of the *BC*.

1012.4.2 Means of egress for change of use to equal or lower hazard category.
 Shall comply with the requirements of *EBC* Section 905 for the new occupancy

1012.4 Means of egress, general.
 Hazard categories in regard to life safety and means of egress shall be in accordance with Table 1012.4.

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Table 1012.5 Heights and Areas

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	A-1, A-2, A-3, A-4, I, R-1, R-2, R-4
3	E, F-1, S-1, M
4 (Lowest Hazard)	B, F-2, S-2, A-5, R-3, U

1012.5.1 Height and area for change to higher hazard category
 comply with Chapter 5 of the BC for the new occupancy classification

1012.5 Heights and areas.
 Hazard categories in regard to height and area shall be in accordance with Table 1012.5.

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Table 1012.6 Exposure Exterior Walls

RELATIVE HAZARD	OCCUPANCY CLASSIFICATION
1 (Highest Hazard)	H
2	F-1, M, S-1
3	A, B, E, I, R
4 (Lowest Hazard)	F-2, S-2, U

1012.6.1 Exterior wall rating for change of occupancy classification to a higher hazard category
 Shall have fire resistance and exterior opening protectives as required by the BC

1012.6 Exterior wall fire-resistance ratings.
 Hazard categories in regard to fire-resistance ratings of exterior walls shall be in accordance with Table 1012.6.

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Chapter 10 Change of Occupancy

A builder wants to change the wood desk fabrication plant into a warehouse for storing washer, dryers and stoves.
 Occupancies:
 F-1 to S-2
 Table 1012.4 – Egress
 Lower Hazard EBC 905
 Table 1012.5 - Height and Area
 Lower Hazard Acceptable
 Table 1012.6 – Exposure
 Lower Hazard-Acceptable

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Chapter 10 Change of Occupancy

Here's my building. I am going to close the **office building** and change the entire building to a three story **department store**.

What are the occupancy classifications ?

B occupancy changing to a M occupancy

Lawyer's Offices
Real Estate Office
Bank

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Table 1012.4 Means of Egress

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	I-2, I-3, I-4
3	A, E, I-1, R-1, R-2, R-4
4	F-2, R-3, S-1
5 (Lowest Hazard)	F-2, S-2, U

1012.4.1 Means of egress for change to higher hazard category. The means of egress shall comply with the requirements of Chapter 10 of the *Building Code*.

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Table 1012.5 Heights and Areas

RELATIVE HAZARD	OCCUPANCY CLASSIFICATIONS
1 (Highest Hazard)	H
2	A-1, A-2, A-3, A-4, I, R-1, R-2, R-4
3	E, F-1, S-1
4 (Lowest Hazard)	F-2, S-2, U

1012.5.1 Height and area for change to higher hazard category. Shall comply with the requirements of Chapter 5 of the *Building Code* for the new occupancy classification. BUT read all 1012.5.1

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Building Code Chapter 5

TABLE 504.3a
ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE
TABLE 504.4a, b
ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE
TABLE 506.2a, b
ALLOWABLE AREA FACTOR

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Building Code Chapter 5

OCCUPANCY CLASSIFICATION	SEE FOOTNOTES	TYPE OF CONSTRUCTION									
		TYPE I		TYPE II		TYPE III		TYPE IV		TYPE V	
		A	B	A	B	A	B	HT	A	B	
A, B, E, F, M, S, U	NS	UL	500	45	55	65	75	65	75	50	40
	S	UL	500	85	75	85	75	85	70	40	

BC Table 504.3
Height in Feet

M		NS		UL		UL		UL		UL	
		11	4	2	4	2	4	3	1		
	S	UL	12	5	3	5	3	5	4	2	

BC Table 504.4
Stories

M		NS		UL		UL		UL		UL	
		20,500	12,500	18,500	12,500	20,500	14,000	9,000			
	S1	UL	30,000 <td>74,000 <td>50,000 <td>82,000 <td>56,000 <td>36,000 </td></td></td></td></td>	74,000 <td>50,000 <td>82,000 <td>56,000 <td>36,000 </td></td></td></td>	50,000 <td>82,000 <td>56,000 <td>36,000 </td></td></td>	82,000 <td>56,000 <td>36,000 </td></td>	56,000 <td>36,000 </td>	36,000			
	SM	UL	44,500 <td>37,500 <td>55,500 <td>37,500 <td>61,500 <td>42,000 <td>27,000 </td></td></td></td></td></td>	37,500 <td>55,500 <td>37,500 <td>61,500 <td>42,000 <td>27,000 </td></td></td></td></td>	55,500 <td>37,500 <td>61,500 <td>42,000 <td>27,000 </td></td></td></td>	37,500 <td>61,500 <td>42,000 <td>27,000 </td></td></td>	61,500 <td>42,000 <td>27,000 </td></td>	42,000 <td>27,000 </td>	27,000		

BC Table 506.2
Area

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Question ?

NO

If the structure is a Type 5 B construction,
Would Chapter 5 allow this project to proceed ?

OCCUPANCY CLASSIFICATION	SEE FOOTNOTES	TYPE OF CONSTRUCTION									
		TYPE I		TYPE II		TYPE III		TYPE IV		TYPE V	
		A	B	A	B	A	B	HT	A	B	
M	NS	UL	11	4	2	4	2	4	3	1	
	S	UL	12	5	3	5	3	5	4	2	

Present

Proposed

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Table 1012.6 Exposure Exterior Walls

RELATIVE HAZARD	OCCUPANCY CLASSIFICATION
1 (Highest Hazard)	H
2	F-1, (VI) S-1
3	A, (B) E, I, R
4 (Lowest Hazard)	F-2, S-2, U

1012.6.1 Exterior wall rating for change of occupancy classification to a higher hazard category.
 Exterior walls shall have fire resistance and exterior opening protectives as required by the *Building Code of New York State*

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Chapter 11 Additions

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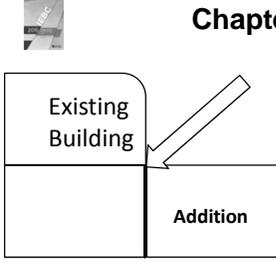
Chapter 11 Additions

1101.1 Scope.
 An *addition* to a building or structure shall comply with the *Codes* as adopted for new construction without requiring the *existing building* or structure to comply except as required by this chapter. Where an *addition* impacts the *existing building* or structure, that portion shall comply with this code.



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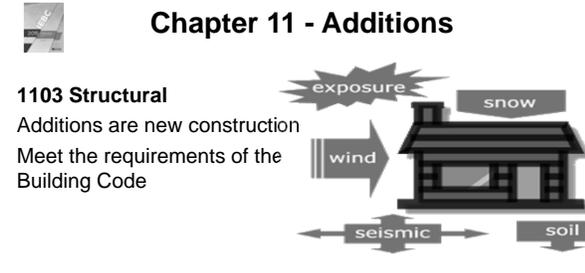
Chapter 11 Additions

We're removing this wall to make this room larger.
Now what happens ?

Where an *addition* impacts the *existing building* or structure, that portion shall comply with this code.

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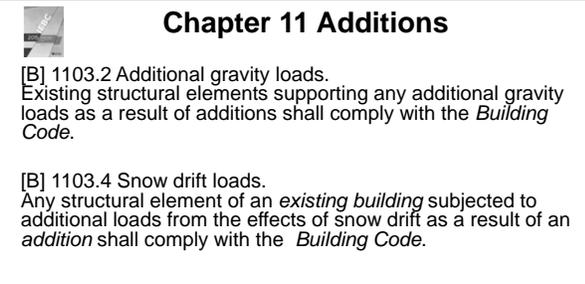
Chapter 11 - Additions

1103 Structural
Additions are new construction
Meet the requirements of the Building Code

exposure, snow, wind, seismic, soil

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Chapter 11 Additions

[B] 1103.2 Additional gravity loads.
Existing structural elements supporting any additional gravity loads as a result of additions shall comply with the *Building Code*.

[B] 1103.4 Snow drift loads.
Any structural element of an *existing building* subjected to additional loads from the effects of snow drift as a result of an *addition* shall comply with the *Building Code*.

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Chapter 12 Historic Buildings



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Chapter 12 Historic Building

Any building or structure that is listed in the State or National Register of Historic Places; designated as a historic property under local or state designation law or survey;



**Engine House
No. 28
Buffalo
Built in 1897**

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Chapter 12 Historic Buildings

1201.1 Scope.
To provide means for the preservation of *historic buildings*.
Shall comply with the provisions of this chapter relating to their *repair, alteration, relocation and change of occupancy*.



The Poughkeepsie
Armory, built in 1891

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Chapter 12 Historic Buildings

1201.2 Report.
A historic building undergoing repair, alteration, or change of occupancy shall be investigated and evaluated.
 A written report shall be prepared and filed with the code official by a registered design professional
 And shall identify each required safety feature that is in compliance and
 Where compliance would damage historical character or features

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Chapter 12 Historic Buildings

1201.3 Special occupancy exceptions—museums.
 When a building in Group R-3 is also used for Group A, B, or M purposes such as museum tours, exhibits, and other public assembly activities, or for museums less than 3,000 square feet

- The code official may determine that the occupancy is Group B
- Means of egress in such buildings, may include maintaining doors in an open position or limit occupancy
- Exiting supervision

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Chapter 12 Historic Buildings



1203.3
 Existing door openings and corridor and stairway widths less than those specified and
 The front or main exit doors need not swing in the direction of the path of exit travel
 When approved by the code enforcement official,

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Chapter 12 Historic Buildings

1205.2 Building area.
 The allowable floor area for *historic buildings* undergoing a *change of occupancy* Permitted to exceed by 20 percent the allowable areas specified in Chapter 5 of the *Building Code*.

A historical building converted into an A-2 in a type IIIB building. A-2 in a IIIB would only allow 9,500 square feet 20% factor, the building can be 11,500 square feet

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Chapter 13 Relocated Buildings



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Chapter 13 Relocated Buildings

1301.2 Conformance.
 The building shall be safe for human occupancy as determined by the *Fire Code* and the *Property Maintenance Code*.
 Any repair, alteration, or change of occupancy undertaken within the moved structure shall comply with the requirements of this code applicable to the work being performed.

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Chapter 14 Performance Compliance

This is an evaluation system that looks at the safety aspects of a building.

If the evaluation is successful, the building is considered code compliant

However, if additional work is done, then the work must comply with the code.



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Chapter 14 Performance Compliance

1401.1 Scope

Shall apply to the *alteration, repair, addition and change of occupancy* of existing structures, including historic and moved structures,

Is intended to maintain or increase the current degree of public safety, health and general welfare in *existing buildings*

Without requiring full compliance with Chapters 5 through 13, unless specifically required

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Chapter 14 Performance Compliance

1401.2 Applicability

Sections 1401.2.1 through 1401.2.5 shall apply to existing occupancies that will continue to be, or are proposed to be, in Groups A, B, E, F, I-2, M, R and S.

These provisions shall **not** apply to buildings with occupancies in Group H or I-1, I-3 or I-4.



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Chapter 14 Performance Compliance

1401.2.1 Change in occupancy.
this section is applicable

1401.2.3 Additions
Shall comply with the Building Code for new construction

1401.2.4 Alterations and repairs.
An *existing building* or portion shall not result in the building being less safe or sanitary than such building is currently

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Chapter 14 Performance Compliance

1401.2.5 Accessibility requirements.
All portions of the buildings proposed for *change of occupancy* shall conform to the accessibility provisions of Section 410




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Chapter 14 Performance Compliance

1401.3 Acceptance.
For *repairs, alterations, additions, and changes of occupancy* to *existing buildings* that are evaluated in accordance with this section, compliance with this section shall be accepted by the *code official*.

1401.3.1 Hazards.
Where the *code official* determines that an unsafe condition exists, such unsafe condition shall be abated

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Chapter 14 Performance Compliance

1401.4 Investigation and evaluation.
The building owner shall cause the *existing building* to be investigated and evaluated

1401.4.1 Structural analysis.
The analysis shall demonstrate the work completed is capable of resisting the loads specified in Chapter 16 of the *Building Code*.



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Chapter 14 Performance Compliance



1401.4.2 Submittal.
The results along with proposed compliance alternatives, shall be submitted to the *code official*.

1401.4.3 Determination of compliance.
Code official shall determine compliance with the provisions of this section

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Chapter 14 Performance Compliance

1401.5 Evaluation.
comprised of three categories

1401.5.1 Fire safety.

1401.5.2 Means of egress.

1401.5.3 General safety.




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Chapter 14 Performance Compliance

1401.6.1 Building Height 1401.6.2 Building Area 1401.6.3 Compartmentation 1401.6.4 Tenant and Dwelling Separation 1401.6.5 Corridor Walls 1401.6.6 Vertical Openings 1401.6.7 HVAC Systems 1401.6.8 Automatic Fire Detection 1401.6.9 Fire Alarm Systems 1401.6.10 Smoke Control 1401.6.11 Means of Egress Capacity and Number 1401.6.12 Dead Ends	1401.6.13 Maximum Exit Access Travel Distance to an Exit 1401.6.14 Elevator Control 1401.6.15 Means of Egress Emergency Lighting 1401.6.16 Mixed Occupancies 1401.6.17 Sprinklers 1401.6.18 Standpipes 1401.6.19 Incidental Use 1401.6.20 Smoke Compartmentation 1401.6.21.1 Patient Ability /Self Preservation 1401.6.21.2 Patient Concentration 1401.6.21.3 Attendant to Patient Ratio
---	--

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Chapter 14 Performance Compliance

**TABLE 1401.8
MANDATORY SAFETY SCORES***

OCCUPANCY	FIRE SAFETY (MFS)	MEANS OF EGRESS (MME)	GENERAL SAFETY (MGS)
A-1	20	31	31
A-2	21	32	32
A-3	22	33	33
A-4, E	29	40	40
B	30	40	40
F	24	34	34
I-2	19	34	34
M	23	40	40
R	21	38	38
S-1	19	29	29
S-2	29	39	39

1401.8 Safety scores.
The values in Table 1401.8 are the required mandatory safety scores

a. MFS = Mandatory Fire Safety.
MME = Mandatory Means of Egress.
MGS = Mandatory General Safety.

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Chapter 14 Performance Compliance

The engineer has reviewed the corridor walls of this building which is being converted to an office building.

Their findings indicate the corridor walls have a 1 hour fire resistance rating and the doors, self close and latch and are the correct rating of 45 minutes for a 1 hour fire rated assembly.

Go to Section 1401.6.5 page 68

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Chapter 14 Performance Compliance

The categories for corridor walls are:

1. **Category a**—No fire partitions; incomplete fire partitions; no doors; or doors not self-closing.
2. **Category b**—Less than 1-hour fire-resistance rating or not constructed in accordance with Section 708.4 of the *Building Code*.
3. **Category c**—1-hour to less than 2-hour fire-resistance rating, with doors conforming to Section 716 of the *Building Code* or without corridors as permitted by Section 1020 of the *Building Code*.
4. **Category d**—2-hour or greater fire-resistance rating, with doors conforming to Section 716 of the *Building Code*.

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Chapter 14 Performance Compliance

TABLE 1401.6.5
CORRIDOR WALL VALUES

OCCUPANCY	CATEGORIES			
	a	b	c	d
A-1	-10	-4	0	2
A-2	-30	-12	0	2
A-3, F, M, R, S-1	-7	-3	0	2
A-4, B, E, S-2	-	-	0	5
I-2	-10	0	0	2

Our B Occupancy

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SAFETY PARAMETERS	FIRE SAFETY (FS)	MEANS OF EGRESS (ME)	GENERAL SAFETY (GS)
1401.6.1 Building Height			
1401.6.2 Building Area			
1401.6.3 Compartmentation			
1401.6.4 Tenant and Dwelling Unit Separations			
1401.6.5 Corridor Walls	0	0	0
1401.6.6 Vertical Openings			
1401.6.7 HVAC Systems			
1401.6.8 Automatic Fire Detection			
1401.6.9 Fire Alarm System			
1401.6.10 Smoke control	****		
1401.6.11 Means of Egress	***		
1401.6.12 Dead ends	***		
1401.6.13 Maximum Exit Access Travel Distance	****		
1401.6.14 Elevator Control	****		
1401.6.15 Means of Egress Emergency Lighting	****		
1401.6.16 Mixed Occupancies		****	
1401.6.17 Automatic Sprinklers		-2 =	
1401.6.18 Standpipes			
1401.6.19 Incidental Use			
1401.6.20 Smoke compartmentation			
1401.6.21.1 Patient ability for self-preservation	****		
1401.6.21.2 Patient concentration	****		
1401.6.21.3 Attendant-to-patient Ratio	****		
Building score—total value			

*** No applicable value to be inserted.

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Chapter 14 Performance Compliance

1401.9 Evaluation of building safety. The mandatory safety score in Table 1401.8 shall be subtracted from the building score in Table 1401.7 for each category.

Where the final score for any category is less than zero, the building is not in compliance with the requirements of this section.

TABLE 1401.8.17
SPRINKLER SYSTEM VALUES

OCCUPANCY	CATEGORIES					
	a	b	c	d	e	f
A-1, A-3, F, M, R, S-1	-6	-3	0	2	4	6
A-2	-4	-2	0	1	2	4
A, B, E, S-2	-12	-6	0	3	6	10
I-2	NP	NP	NP	8	10	NP

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Chapter 15 Safety During Construction



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Chapter 15 - Construction Safeguards

1501.1 Scope

- Safety during construction
 - Protect individuals
 - Protect neighboring properties




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Chapter 15 - Construction Safeguards

1501.3 Alterations, repairs, and additions.
 Maintain the following during alterations, repairs and additions

- Exits
- Structural elements
- Fire protection devices
- Sanitary safeguards



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Chapter 15 - Construction Safeguards



1501.6.4 Barriers.
 Minimum of 8 feet in height

Placed on the side of the walkway nearest the construction.

Barriers shall extend the entire length of the construction site.

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Chapter 15 - Construction Safeguards

1502.1 Protection required
 Adjoining public and private property Protected from damage during construction and demolition be provided Provide written notice to the owners of adjoining buildings that the adjoining buildings should be protected, delivered not less than 10 days prior to the scheduled starting date

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Chapter 15 - Construction Safeguards



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Chapter 15 - Construction Safeguards

1504.1 Where required. Fire Extinguishers
 All structures under construction, *alteration*, or demolition shall be provided

1. each stairway on all floor levels
2. every storage and construction shed
3. where special hazards exist



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Chapter 15 - Construction Safeguards

1505.1 Stairways required.
 Where an *existing building* exceeding 50 feet in building height is altered, at least one temporary lighted stairway shall be provided

1505.2 Maintenance of means of egress.
 Required means of egress shall be maintained at all times during construction, demolition, remodeling or *alterations* and *additions* to any building.



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Chapter 15 - Construction Safeguards

1501.7 Facilities required.
 Sanitary facilities shall be provided during construction or demolition activities in accordance with the *Plumbing Code*.



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Chapter 15 - Construction Safeguards

**SECTION 1507
 AUTOMATIC SPRINKLER SYSTEM**

1507.2 Operation of valves.
 Operation of sprinkler control valves shall be permitted only by properly authorized personnel. When the sprinkler protection is being regularly turned off and on to facilitate connection of newly completed segments, the sprinkler control valves shall be checked at the end of each work period to ascertain that protection is in service.

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Chapter 15 - Construction Safeguards

1509.1 When required.
 An approved water supply for fire protection, either temporary or permanent, shall be made available as soon as combustible material arrives on the site.



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The Code Official and Disasters

Why you need to be a part of the plan.



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Code Enforcement and Disasters

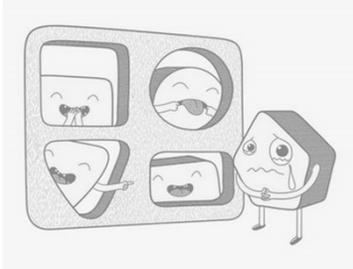
What do I have to do with disasters and disaster response?



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9/27/2016

A tornado that caused property damage near the state capital, Albany, was spawned in a string of violent thunderstorms a week after Tropical Storm Irene brought destructive flooding to the region. The tornado was about a half-mile wide and on the ground for more than 10 minutes



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New York State has the potential for a number of natural disasters....



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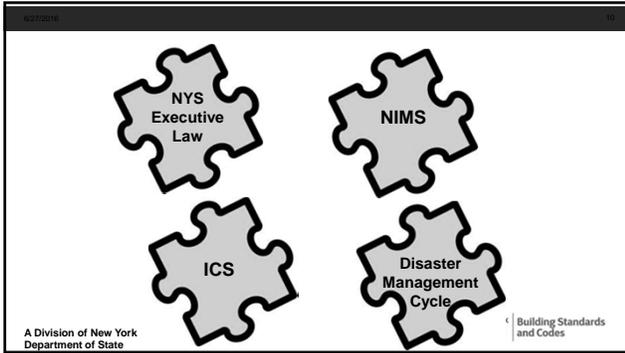
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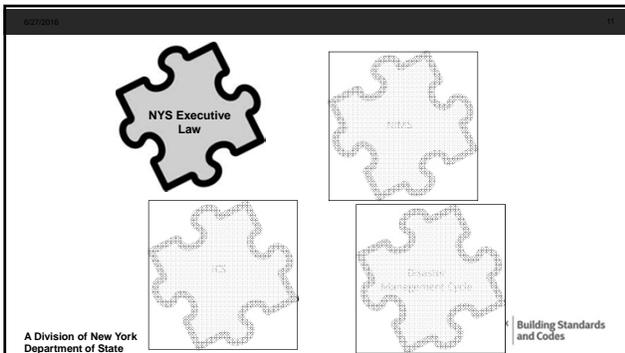


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Building Standards
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New York State Executive Law Article 2-B

1. It shall be the policy of the state that:

a. Local government and emergency service organizations continue their essential role as the first line of defense in times of disaster,

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Building Standards and Codes

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Executive Law 2-B

23. Local comprehensive emergency management plans

1. Each county, except those contained within the city of New York, and each city, town and village is authorized to prepare comprehensive emergency management plans.



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Executive Law 2-B

5. In preparing such plans, cooperation, advice and assistance shall be sought from local government officials...




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Executive Law 2-B

7. Such plans shall include, but not be limited to:

- a. Disaster prevention and mitigation. Plans to prevent and minimize the effects of disasters shall include, but not be limited to:
 - (1) identification of hazards and assessment of risk;



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Executive Law 2-B

7. Such plans shall include, but not be limited to:

- a. Disaster prevention and mitigation. Plans to prevent and minimize the effects of disasters shall include, but not be limited to:
 - (2) recommended disaster prevention and mitigation projects, policies, priorities and programs, with suggested implementation schedules, which outline federal, state and local roles;

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Executive Law 2-B

7. Such plans shall include, but not be limited to:

- a. Disaster prevention and mitigation. Plans to prevent and minimize the effects of disasters shall include, but not be limited to:
 - (3) suggested revisions and additions to building and safety codes and zoning and other land use programs;

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Executive Law 2-B

7. Such plans shall include, but not be limited to:

- a. Disaster prevention and mitigation. Plans to prevent and minimize the effects of disasters shall include, but not be limited to:
 - (4) such other measures as reasonably can be taken to protect lives, prevent disasters, and reduce their impact.

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Executive Law 2-B

7. Such plans shall include, but not be limited to:

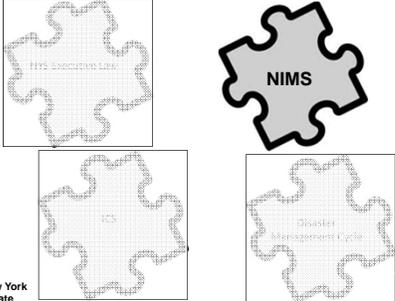
- c. Recovery. Local plans to provide for recovery and redevelopment after disasters shall include, but not be limited to:
 - (1) recommendations for replacement, reconstruction, removal or relocation of damaged or destroyed public or private facilities, proposed new or amendments to zoning, subdivision, building, sanitary or fire prevention regulations and recommendations for economic development and community development in order to minimize the impact of any potential future disasters on the community.

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Building Standards
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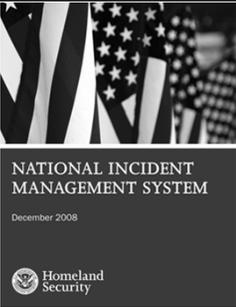


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“NIMS”

Homeland Security Presidential Directive (HSPD)-5:
Directed the development and administration of the National Incident Management System (NIMS)

Originally issued on March 1, 2004, by the Department of Homeland Security (DHS)

NIMS provides a consistent nationwide template

- Federal
- State
- tribal
- local governments
- nongovernmental organizations
- private sector

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The National Incident Management System (NIMS) provides a systematic, proactive approach to guide departments and agencies at all levels of government, nongovernmental organizations, and the private sector to work seamlessly to prevent, protect against, respond to, recover from, and mitigate the effects of incidents, regardless of cause, size, location, or complexity, in order to reduce the loss of life and property and harm to the environment.

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What NIMS Is:

- A comprehensive, nationwide, systematic approach to incident management, including the Incident Command System, Multiagency Coordination Systems, and Public Information
- A set of preparedness concepts and principles for all hazards
- Essential principles for a common operating picture and interoperability of communications and information management
- Standardized resource management procedures that enable coordination among different jurisdictions or organizations
- Scalable, so it may be used for all incidents (from day-to-day to large-scale)
- A dynamic system that promotes ongoing management and maintenance

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What NIMS Is NOT:

- A response plan
 - Only used during large-scale incidents
- A communications plan
 - Only applicable to certain emergency management/incident response personnel
- Only the Incident Command System or an organization chart
- A static system

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1. NIMS COMPONENTS

The components of NIMS were not designed to stand alone, but to work together in a flexible, systematic manner to provide the national framework for incident management

- Preparedness
- Communication and Information Management
- Resource Management
- Command and Management
- Ongoing Management and Maintenance

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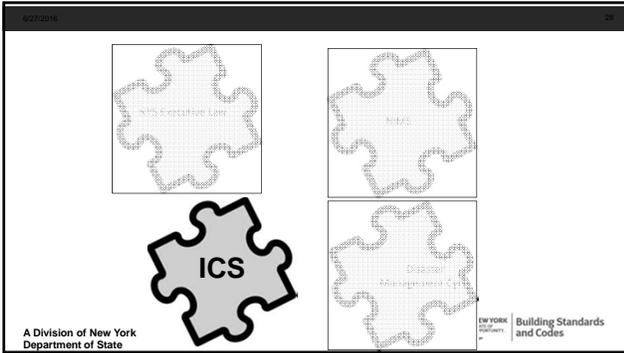
Required training:

- IS – 700.A National Incident Management System
 - Understanding NIMS
 - NIMS Preparedness
 - NIMS Communication and Information Management
 - NIMS Resource Management
 - NIMS Command and Management
 - Additional NIMS Elements and Resources
 - Exam

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The Incident Command System (ICS) is a standardized, on-scene, all-hazards incident management approach that:

- Allows for the integration of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure.
- Enables a coordinated response among various jurisdictions and functional agencies, both public and private.
- Establishes common processes for planning and managing resources.

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NYS Incident Command System

Governor's Executive Order Number 26, issued on March 5, 1996, established the Incident Command System (ICS). It states that ICS shall be used in New York State,
"as the standard command and control system during emergency operations."

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Required training:

- IS – 100.b Introduction to Incident Command System, ICS – 100
 - Course Welcome and ICS Overview
 - ICS Features and Principles
 - Incident Commander and Command Staff Functions
 - General Staff Functions
 - Unified Command and Coordination
 - Course Summary
 - Exam

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Additional training:

- IS – 200.b ICS for Single Resources and Initial Action Incidents
 - Course Overview
 - Leadership and Management
 - Delegation of Authority and Management by Objective
 - Functional Areas and Positions
 - Briefings
 - Organization Flexibility
 - Transfer of Command
 - Course Summary
 - Exam

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Training Required

<http://training.fema.gov/IS/NIMS.asp>

Online and its free!!

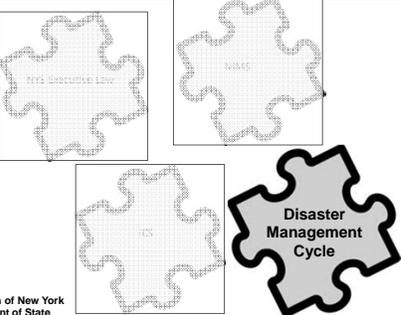
DCEA awards 1 hour inservice credit for ICS 100
DCEA awards 1 hour inservice credit for ICS 200
DCEA awards 1 hour inservice credit for ICS 700

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Disaster Management Cycle

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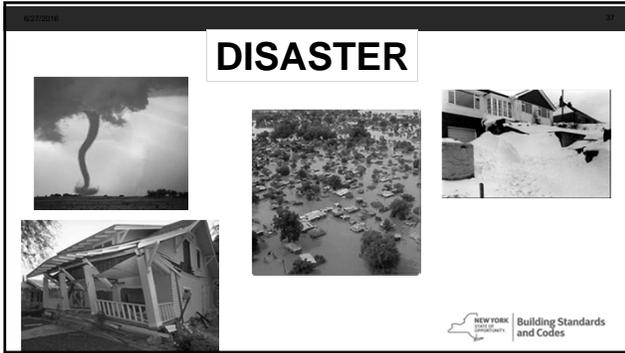


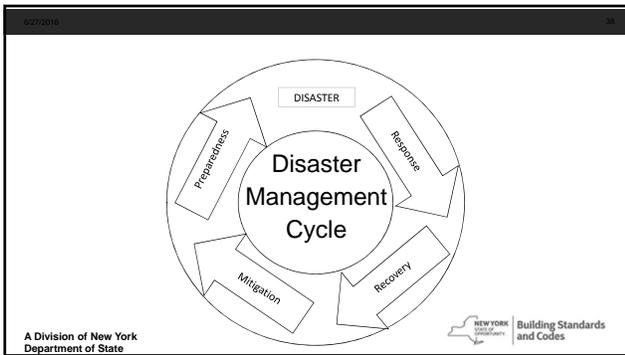
Disaster Management Cycle

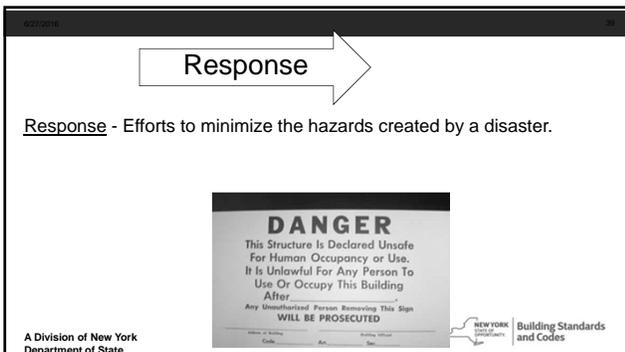
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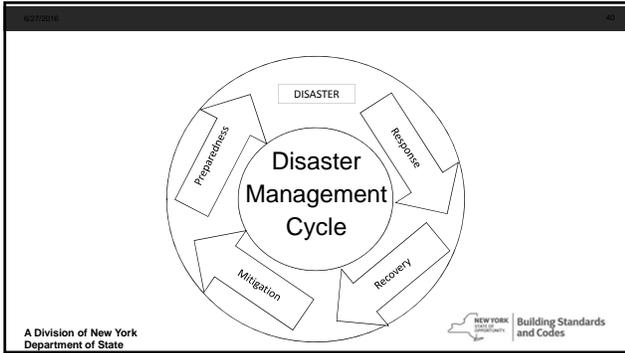


Building Standards
and Codes









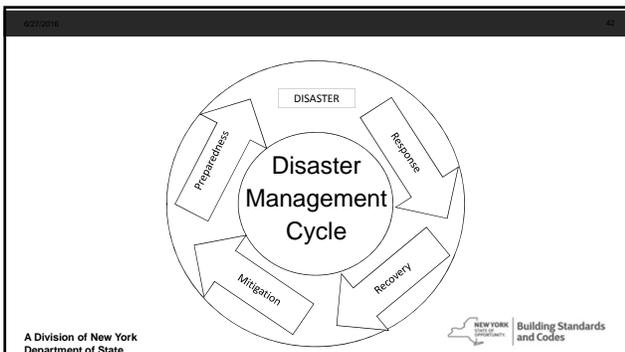
Recovery →

Recovery - Returning the community to normal

The image shows a close-up of a "BUILDING PERMIT" document with a ruler placed over it. The permit has some handwritten text and a stamp. The ruler is marked in inches.

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NEW YORK STATE Building Standards and Codes



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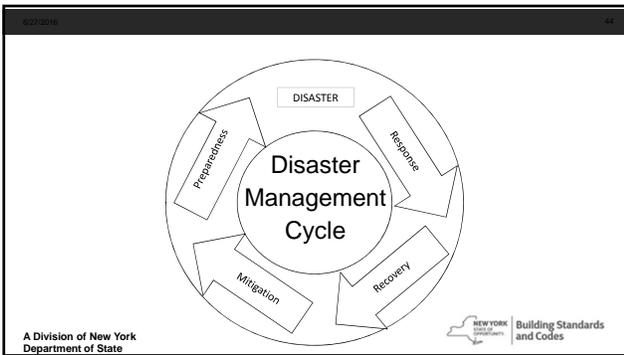
Mitigation

Mitigation - Minimizing the effects of disaster



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Preparedness

Preparedness - Planning how to respond.



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02/2/2016

So...what does that mean to me?



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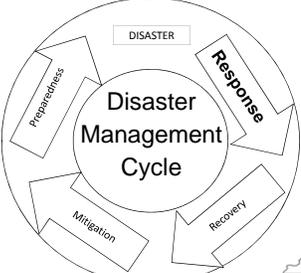
02/2/2016



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02/2/2016



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Response

Response - Efforts to minimize the hazards created by a disaster.

- Identifying areas affected by the event
- Requesting assistance as determined by extent of damage
- Performing rapid evaluations of buildings in affected areas

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Identifying areas affected by the event

Code Official may conduct a "windshield survey"



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Building Standards
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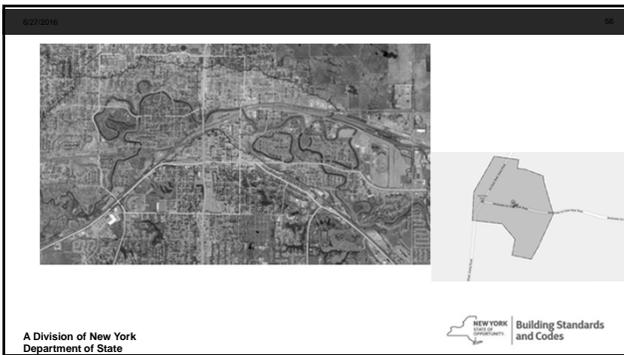


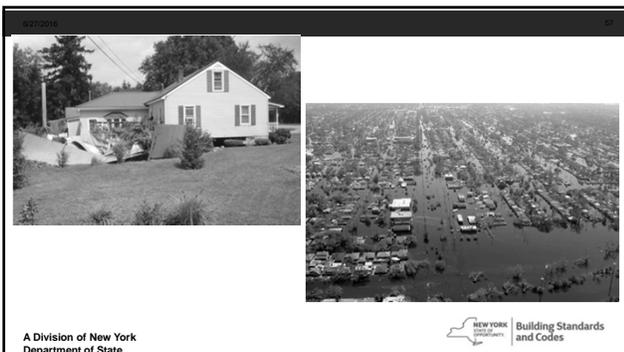
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Building Standards
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Requesting Assistance

The Code Enforcement Official may need to request additional assistance to complete the building evaluations.

- Mutual Aid agreements
- NYS DBSC CEDAR teams



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Mutual Aid Agreements

Established with other municipalities within the County

- Completed before the event
- Provide assistance when requested
- Addresses liability and workers comp coverage
 - Who provides it to responders
- Address identification



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NYS DBSC CEDAR PROGRAM

The Department of State has established the CEDAR Program within the DBSC

- Coordinates the Code Enforcement Disaster Assistance Response (CEDAR) program
 - Code Enforcement Officials
 - Code Compliance Technicians
 - Architects
 - Engineers
 - Trained to respond and conduct rapid evaluations
- Provides equipment and forms
- Is part of the NYS Incident Management System

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Requesting Assistance

Done through the County Emergency Manager



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Conduct Rapid Evaluations

Identify the level of damage
ATC 45 standard
Inspected
Restricted
Unsafe

Based on the amount of damage
5 – 20 minutes per building
Provides valuable information on extent of damage
Used in subsequent phases of the "disaster cycle"

Field manual: safety evaluation of buildings after wind storms and floods

ATC
Applied Technology Council

RESTRICTED USE

REPAIRS REQUIRED

INSPECTED

NO REPAIRS REQUIRED

UNSAFE

REPAIRS REQUIRED

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STATE
BUILDING STANDARDS AND CODES

ATC 45 Rapid Evaluation Safety Assessment Form

Inspector ID: _____ Inspector Date: _____
 Inspector Name: _____ Inspector Title: _____
 Area Inspected: Exterior only Exterior and interior Interior only

Building Description

Building Name: _____ Type of Building: Residential Public/Industrial
 Address: _____ Care-institution Store or mercantile building
 Building Construction: Masonry Concrete Steel Other _____
 Number of stories: _____ Single Commercial Residential
 Type of roof system: Flat Gable Hip Other _____
 Number of mechanical units: _____ None Other _____
 See back of form for further comments.

Evaluation

Inspect the building for the conditions below and check the appropriate column.

Condition	None	Minor	Major	Extensive	Severe
Column and/or slab in building of loadbearing	<input type="checkbox"/>				
Building significantly out of plumb or crooked	<input type="checkbox"/>				
Damage to primary structural members, resulting in walls	<input type="checkbox"/>				
Cracks, holes, holes or structural damage, etc.	<input type="checkbox"/>				
Structural steel: "X" marks, buckling, bending, etc.	<input type="checkbox"/>				
Other: _____	<input type="checkbox"/>				

Rating

Observe working based on the evaluation and make judgment. Review conditions underlying the overall building and provide for an overall rating. (Detailed Notes and Overall Assessment conditions may also be provided.)

RESTRICTED (Down placed) INSPECTED (Not placed) UNSAFE (Not placed)

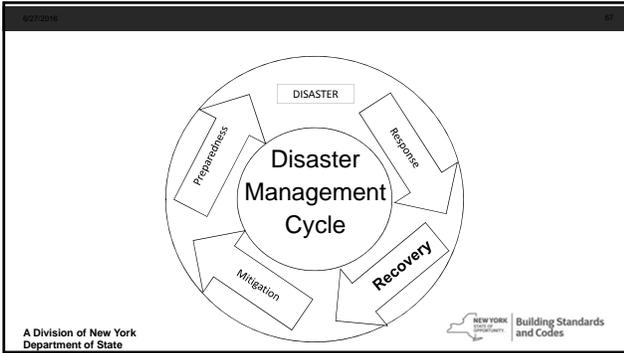
Number of mechanical units present: _____

Further Actions Check the boxes below only if further action is needed:

Detailed structural assessment Structural Remedial Other _____
 Additional damage assessment recommended Other _____
 See back of form for further comments.

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NEW YORK
STATE
BUILDING STANDARDS AND CODES



Recovery - all types of emergency actions dedicated to the continued protection of the public or to promoting the resumption of normal activities in the affected area.

The text is accompanied by two photographs. The left photo shows a large pile of rubble and debris, likely from a destroyed structure. The right photo shows the interior of a room with significant damage to the walls and debris scattered on the floor. The slide includes a date of 10/27/2016, a slide number of 42, and logos for the New York State Department of State and Building Standards and Codes.

Recovery Phase

The text is accompanied by a photograph showing a "BUILDING PERMIT" document, a pen, a ruler, and architectural blueprints. The permit document has the text "BUILDING PERMIT" and "The card must be fastened in a conspicuous place on the..." visible. The slide includes a date of 10/27/2016, a slide number of 43, and logos for the New York State Department of State and Building Standards and Codes.

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TITLE 19 (NYCRR) PART 1203 - UNIFORM CODE: MINIMUM STANDARDS FOR ADMINISTRATION AND ENFORCEMENT

(a) *Building permits.*
 (1) Building permits shall be required for work which must conform to the Uniform Code.

(f) *Procedures regarding unsafe structures and equipment.*
 Procedures shall be established for identifying and addressing unsafe structures and equipment.

(j) *Record keeping.* A system of records of the features and activities specified in subdivisions (a) through (i) of this section and of fees charged and collected, if any, shall be established and maintained.

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Disaster Management Cycle

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Mitigation - efforts to reduce loss of life and property by lessening the impact of disasters. This is achieved through risk analysis, which results in information that provides a foundation for mitigation activities that reduce risk, and flood insurance that protects financial investment.

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10/24/2016

Mitigation

Residential Code Section R322.1 General.

Buildings and structures constructed in whole or in part in flood hazard areas (including A or V Zones) as established in Table R301.2(1) shall be designed and constructed in accordance with the provisions contained in this section.



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Building Standards
and Codes

10/24/2016

Mitigation

Building Code Section 1612.1 General.

Within flood hazard areas as established in Section 1612.3, all new construction of buildings, structures and portions of buildings and structures, including substantial improvement and restoration of substantial damage to buildings and structures, shall be designed and constructed to resist the effects of flood hazards and flood loads. For buildings that are located in more than one flood hazard area, the provisions associated with the most restrictive flood hazard area shall apply.

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Mitigation

101.2.7.4.1 Unsafe structures.

An unsafe structure is one that is found to be dangerous to the life, health, property or safety of the public or to the occupants of the structure by not providing minimum safeguards to protect or warn occupants in the event of fire; or because such structure contains unsafe equipment or is so damaged, decayed, dilapidated, or structurally unsafe; or is of such faulty construction or unstable foundation that partial or complete collapse is possible.

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Mitigation



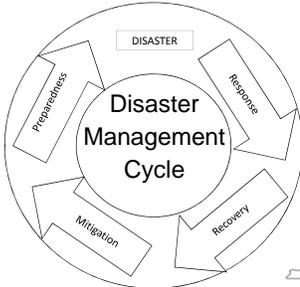

101.2.7.4.3 Structure unfit for human occupancy.
 A structure is unfit for human occupancy whenever the structure is unsafe, unlawful, or because of the degree to which the structure is in disrepair or lacks maintenance or the location of the structure constitutes a hazard to the occupants of the structure or to the public.



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Disaster Management Cycle

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Preparedness

Preparedness - Planning how to respond.
 Identify areas in flood prone areas
 Identify buildings already damaged or in disrepair
 Review "unsafe buildings" procedure
 Complete ICS training
 Evaluation forms
 Create intermunicipal agreements for small events
 Critique previous response and modify program

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