**Good Morning!**

*Welcome to another inservice course*

*Brought to you by*

The New York State Department of State
Division of Code Enforcement and Administration
Education Services Unit

**Inspecting Existing Public Assemblies**

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**Public Assembly**

• **Occupancy (Fire Code Definition):**
  – Use of a building or structure, or a portion..., gathering of persons for purposes such as
    • Civic
    • Social
    • Religious
    • Recreation
    • Food/drink consumption
    • Awaiting transportation

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**The Fire Code**

• **Purpose: 101.3**
  – Establish minimum safety requirements in new and existing buildings

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**The Fire Code**

• **New construction standards: 102.1.1**
  – New buildings
  – Existing buildings not legally in existence.
  – Existing buildings called out by the Fire Code.

• **Existing building standards: 102.2**
  – New buildings
  – Existing buildings

---

**EXAMPLE**

• **102.1.1 New construction language**
  – 903.2.1 An automatic sprinkler system shall be installed throughout buildings and portions thereof used as a Group A ...

• **102.2 Existing building language**
  – 903.5 Sprinkler systems shall be tested and maintained ...

---

**The Fire Code**

• **Legally in existence: 102.8**
  – What does that means, exactly?

• **Does it have a valid certificate of occupancy?**

• **Has it passed previous fire inspections?**

• **Does it have an operational permit?**
An unlawful building

- Unlawful structure: 107.4
  - Occupied by more persons than permitted
  - Erected or altered without approval

107.1 – condemned pursuant to the code
Title 19 Part 1203.3(f) procedures shall be established for addressing unsafe structures

The Fire Code

- Maintenance of required systems: 106.1
  - Maintained continuously
    - Fire Code
    - Property Maintenance Code
    - Reference standards
    - State variance
- Maintenance of non-required systems: 106.2
  - Maintained, or
  - Removed

The Fire Code

- Testing ... testing ...
  - 106.3: If “it” requires periodic testing, “it” gets periodic testing!
- How do I know it was tested?
  - 106.3.1: Records shall be available
- What if it failed the test?
  - 106.3.2: Fix “it” and retest “it”

Preparing for the inspection

- What needs to be inspected?
  - How many public assemblies are there?
  - When was the last time they were inspected?
Preparing for the inspection

• Review the files
  – Look at past inspection reports
  – Look for complaints
    • May develop a pattern
  – Review any building permits issued recently
    • Be aware of building modifications
    • None issued? Should be the same building then...

• May develop a pattern

• Review any building permits issued recently

• Be aware of building modifications

Preparing for the inspection

• Review the inspection form
  – What parts of the Fire Code will be needed?
    LP gas Chapter 38?
    Egress Chapter 10?
    Hood system Chapter 6?
    Fire protection system Chapter 9?
    Emergency Plans Chapter 4?
    General Precautions Chapter 3?

Preparing for the inspection

• Check the operating permit
  – Do they even have one?
    • Do they need one?
  – Is it still valid?
  – Are there any conditions established?
  – Have there been problems with it in the past?
  – How may permits does the building have?
    • Public assembly holding more than 100?
    • Pyrotechnics?
    • Classified by the municipality as being a hazard?

Preparing for the inspection

• Do you have the right reference standards?
  NFPA 10?
  NFPA 96?
  NFPA 72?
  NFPA 25?

Conducting the inspection

• Education
• Technical Information
• Research
• Qualifications
General Precautions Against Fire
Fire Code
Chapter 3

• 304.3.2
  – Holds more than 40 gallons
  • Needs lid
  • Noncombustible
  • Approved combustible

• 304.1.3  Spaces under seats

• 304.3.2
  – Holds more than 40.5 gallons
  • Not in the building
  • Not within 5’ of
    – Combustible walls
    – Openings
    – Combustible roof eave lines
    » Unless area is sprinklered

• 308.3.2  Open flame decorative devices

• 308.3.2  Open flame decorative devices
General Precautions Against Fire
Fire Code
• 308.6.3 - 5 Serving flaming foods

Emergency Plans and Preparedness
Fire Code
Chapter 4

Emergency Plans and Preparedness
Fire Code
• 401.1 Scope
  – Reporting emergencies
  – Coordination
  – Plans and procedures
• 401.2 Approval
  – Safety plans
  – Training

Emergency Plans and Preparedness
Fire Code
• 404.2 Safety and evacuation plan
  – Group A requires it

Emergency Plans and Preparedness
Fire Code
• 404.2 Safety and evacuation plan
  – Group A requires it?
Emergency Plans and Preparedness
Fire Code

- Fire Safety Plan
  - Exception
  - Exclusively used for religious worship
    - Occupant load under 2,000

But what about FC 308.3.5?
- Candles during religious ceremonies
  - "When, in the opinion of the CEO, adequate safeguards..."
  - How do you know they have "adequate safeguards"?

Emergency Plans and Preparedness
Fire Code

- 404.3 Contents
  - Evacuation plans
  - Safety plans
- 404.4
  - Reviewed annually
- 404.5
  - Available

footnote d: colleges and universities
Emergency Plans and Preparedness
Fire Code
• 401.3

Emergency Plans and Preparedness
Fire Code
• 407.2 MSDS readily available

Emergency Plans and Preparedness
Fire Code
• 408.2 Additional requirements

Emergency Plans and Preparedness
Fire Code
• 408.2 Additional requirements
Emergency Plans and Preparedness
Fire Code
• 408.2 Additional requirements

Fire Service Features
Chapter 5
• Fire apparatus access road
  – Post 2003

Fire Service Features
Chapter 5
• Pre - 2003
  – Section 1161.2 NYSUFPBC
    • Not accessible from street
    – Provided with access roads or fire lanes
  – Current Fire Code
    • 102.8 Existing structures
    • 106.1 Maintenance of required safeguards
      – Arrangements

Fire Service Features
Chapter 5

Fire Service Features
Chapter 5
Fire Resistance Rated Construction
Chapter 7

- Required rating shall be maintained
  - Title 9 NYSUFPBC
    - Part 771.4 Fire Separations
      - (i) Enclosure of commercial kitchens
        » 2 hour rated enclosure

Decorative Materials
Fire Code
Chapter 8

- 807 Decorative material other than vegetation
  - Flame resistance tested to NFPA 701
    - Or noncombustible
    - Reports available to CEO

- 807 Decorative material other than vegetation
  - Furnishings can’t block egress
Fire Protection Systems

Maintaining Systems

• What about older stuff?

IN THE BEGINNING....

• 106.1 Required systems maintained
  – Fire Code
  – Property Maintenance Code
  – Referenced Standards

• 106.2 Nonrequired systems
  – Maintain
    • Fire Code
    • Reference Standards
  – Or remove

Maintaining Systems

• Maintenance requirements start in Chapter 1

Maintaining Fire Protection Systems

• 901.4.2 Nonrequired fire protection systems
  – Not required by:
    • Fire Code
    • Building Code
    • Existing Building Code
  – Allowed if it meets:
    • Fire Code
    • Building Code
    • Existing Building Code

Maintaining Systems

• 901.4 Maintain to original standard
Maintaining Systems

- Reference Standards

**Table 901.6.1**

<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>STANDARDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PORTABLE FIRE EXTINGUISHER</td>
<td>NFPA 10</td>
</tr>
<tr>
<td>CARBON DIOXIDE FIRE – EXTINGUISHING SYSTEM</td>
<td>NFPA 12</td>
</tr>
<tr>
<td>HALON 1301 FIRE – EXTINGUISHING SYSTEM</td>
<td>NFPA 12A</td>
</tr>
<tr>
<td>DRY – CHEMICAL EXTINGUISHING SYSTEMS</td>
<td>NFPA 27</td>
</tr>
<tr>
<td>WET – CHEMICAL EXTINGUISHING SYSTEM</td>
<td>NFPA 17A</td>
</tr>
<tr>
<td>WATER – BASED FIRE PROTECTION SYSTEMS</td>
<td>NFPA 25</td>
</tr>
<tr>
<td>FIRE ALARM SYSTEMS</td>
<td>NFPA 72</td>
</tr>
<tr>
<td>WATER – MIST SYSTEMS</td>
<td>NFPA 750</td>
</tr>
<tr>
<td>CLEAN – AGENT EXTINGUISHING SYSTEMS</td>
<td>NFPA 2001</td>
</tr>
</tbody>
</table>

Maintaining Systems

- 901.6 Inspection, testing and maintenance
  - Maintained in operative condition
  - Repair
  - Replace
  - Nonrequired systems
    - Follow 901.6
    - Or removed

Maintaining Sprinkler Systems

- Sprinkler system
  - 903.5 Testing and maintenance
  - See 901
Maintaining Sprinkler Systems
NFPA 25

1.1 NFPA 25 establishes requirements for periodic testing, inspection and maintenance for water-based fire protection systems:
- Sprinkler
- Standpipe
- Fixed water spray
- Foam water
- Hydrants

Maintaining Sprinkler Systems
NFPA 25

4.1.1 Responsibility
- Property owner is responsible for maintaining the system
  - 4.1.2.3 Can pass on responsibility
  - 4.1.2.4 Act as the “owner”
- 4.1.2 Accessibility
  - Owner or occupant shall provide access

4.1.2.2 The tasks shall be carried out by competent personnel:
- Training
- Experience

4.5 Inspection
- Inspected at intervals specified by NFPA 25
- More later...

4.6 Testing
- Tested to insure the system functions as installed
- Tests results compared to original acceptance test

5.1 Sprinklers
- Covers minimum requirements for routine inspection, testing, and maintenance
- Alarm receiving facility to be notified:
  - Before test begins
  - After test is over

5.2 Inspect
- From the floor level annually
- Not leaking
- Free of:
  - Corrosion
  - Foreign materials
  - Paint
  - Physical damage
- Proper orientation
- Replace it!
Maintaining Sprinkler Systems
NFPA 25

• 5.2.1.1.6 Sprinkler subject to recall shall be replaced.

• FC 901.9 Recall of fire protection components
  – Component subject to recall replaced
  – AHJ shall be notified in writing

WASHINGTON, D.C. – The U.S. Consumer Product Safety Commission (CPSC) and Central Sprinkler announced today the nationwide recall of approximately 8.4 million Omega brand fire sprinklers manufactured since 1982 by Central Sprinkler Corp. and its subsidiary, Central Sprinkler Co., of Lansdale, Pa. CPSC alleges that Omegas are defective and could likely fail in a fire.

Maintaining Sprinkler Systems
NFPA 25

• 5.2.1.3 Spare sprinkler heads
  – Proper number and type
  – Wrench for each type

Maintaining Sprinkler Systems
NFPA 25

• 5.2.2 Pipes and Fittings
  – Inspected annually from the floor
  – Free of damage, leaks and corrosion
  – Not subject to external loads
    • Don’t hang things from them
  – In concealed areas
    • Not subject to inspection

Maintaining Sprinkler Systems
NFPA 25

• 5.2.4.2 Gauges
  – Wet pipe sprinkler systems
    • Inspected monthly
      – Good condition
      – Normal water supply
  – Dry pipe sprinkler systems
    • Inspected weekly
      – Normal water and air pressure

Maintaining Sprinkler Systems
NFPA 25

• 5.2.6 Alarm Devices
  – Inspected quarterly for damage

• 5.2.7 Hydraulic Nameplate
  – Inspected quarterly
    • Attached to riser
    • Legible
Maintaining Sprinkler Systems
NFPA 25

• 5.3 Testing
  – Sprinklers in service
    • >50 years
      – Replace or test
      – Repeat every 10 years
    • Prior to 1920
      – Replace
    – Gauges
      • Replace every 5 years or calibrate

• 5.4 Maintenance
  – Only new, listed sprinklers shall be used as replacements
  – Maintain a supply of replacements
    • Never < 6
    • Have proper characteristics
      – Orifice size
      – Style
      – Temperature rating
      – Deflector type
    • Don’t forget the wrench

• 13.1 Minimum requirements for
  – Valves
  – Valve components
  – Trim
• 13.2.1 Property owner to have manufactures information on testing
• 13.2.2 Notification
  – AHJ shall be notified prior to testing or maintenance of valves and associated alarms

• 5.3.3 Alarm Devices
  – Mechanical waterflow devices
    • Tested quarterly
  – Vane-type and pressure switch
    • Tested semiannually

• 5.4.1.9 Sprinklers protecting commercial cooking equipment and vent systems
  – Replace annually
    • Unless inspected and found to be free of grease build up

• 13.3.1.3 Open valves
  – Locked, or
  – Electronically supervised
Maintaining Sprinkler Systems
NFPA 25

- 13.3.2 Inspections
  - All valves inspected weekly
    - Locked or electronically supervised
      - Monthly
  - Verify
    - Open or closed
    - Sealed, locked or electronically supervised
    - Accessible
    - Wrench provided
    - Free of leaks
    - Identified

Maintaining Fire Department Connection
NFPA 25

- Fire Code 912.6
  - Inspected, tested and maintained per NFPA 25
- 13.7 Fire Department Connections
  - Inspected quarterly
    - Visible and accessible
      - FC 912.2.2.
    - Not damaged
    - Plugs/caps in place
    - Identification signs in place
    - Check valve not leaking

Maintaining Fire Department Connection
NFPA 25

- 13.7.2 Missing plug or cap
  - Inspect interior of connection for obstructions
  - Verify clapper is operational

System Impairments
NFPA 25

- 4.1.3 System shutdown
  - Owner/occupant notifies
    - AHJ
    - FD
    - Alarm receiving facility
  - Notification includes
    - Purpose of shutdown
    - Components involved
    - Estimated time of shutdown
  - Notify same when system restored

Maintaining Hydrants
NFPA 25

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impedance</td>
<td></td>
<td>7.2.2</td>
</tr>
<tr>
<td>Fire hydrant (and valve)</td>
<td>Annually and after each operation</td>
<td>7.2.6</td>
</tr>
<tr>
<td>Monitor-nozzle</td>
<td></td>
<td>7.2.3.4</td>
</tr>
<tr>
<td>Drain (ventilation)</td>
<td></td>
<td>7.2.4</td>
</tr>
<tr>
<td>Monitor nozzles</td>
<td>Annually and after each operation</td>
<td>7.2.5</td>
</tr>
<tr>
<td>Piping (in-ground)</td>
<td>Annually</td>
<td>7.2.3.3</td>
</tr>
<tr>
<td>Piping (in-ground), (flow test)</td>
<td>7.2.3.6</td>
<td></td>
</tr>
<tr>
<td>Test</td>
<td></td>
<td>7.5.3</td>
</tr>
<tr>
<td>Monitor nozzles</td>
<td>Flow, annually (range and operation)</td>
<td>7.5.3</td>
</tr>
<tr>
<td>Hydrants</td>
<td>Flow, annually</td>
<td>7.5.4</td>
</tr>
<tr>
<td>Piping (in-ground), (flow test)</td>
<td>7.5.4</td>
<td></td>
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Maintenance
- Machine meters
  - Annually and after each operation
  - 7.2.5.5
- Hose nozzles
  - Annually
  - 7.2.7
- Hydrants
  - Annually
  - 7.4.4
- Monitor nozzles
  - Annually
  - 7.4.5
Maintaining Fire Alarm Systems

Fire Code

- Fire alarm system
- 907.20  Inspection, testing and maintenance
  - In accordance with 907.20 and NFPA 72-07
- Maintenance – if required by code –
  - Continuously maintained to NFPA 72;
  - Or as directed by Code Enforcement Official
- Testing – per schedule in NFPA 72 or more frequently if required by CEO

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Maintaining Fire Alarm Systems

Fire Code

- 907.20.3 Detector sensitivity
  - Test 1 year after installation
  - Every alternative year thereafter
  - After second test
    - Calibration remains consistent – test every 5 years
    - Maintain “false alarm” records
    - Increase in “false alarms” over previous year – calibrate
  - Don’t test with any device that
    - Introduces unmeasured amounts of smoke or other aerosol

Maintaining Fire Alarm Systems

NFPA 72

- NFPA 72 – National Fire Alarm Code
  - Chapter 10: The inspection, testing and maintenance shall comply with this Chapter
  - Applies to both new and existing systems
10.2.1.1 Performance verification
- Fire alarm system shall have:
  - Inspection
  - Testing
  - Maintenance
- Meet the requirements of NFPA 72
- Conform to manufacturer's instructions
- Verify correct operation

10.2.2 Responsibilities
- Property owner or delegate
  - Delegation of responsibility in writing
    - Copy to AHJ

10.2.2.5 Service personnel qualifications
- Factory trained and certified
- Certified by a nationally recognized organization
- Registered, licensed, certified by state
- Employed and qualified by an organization listed by a nationally recognized testing lab

§69-m. License required
- On and after October 1, 1992
  - No person shall engage in the business of installing, servicing or maintaining security or fire alarm unless he is licensed
  - Nothing herein shall prohibit a person licensed from employing individuals to assist in the installation, servicing or maintaining of security or fire alarm systems, provided such licensee issues identification cards to each unlicensed individual.

69-pp. Licensed master electrician waiver
- Licensed master electrician who engages in the business of installing, servicing or maintaining security or fire alarm systems within such municipality shall be waived from the provisions of this article upon registration with the Secretary of State

§69-q. Licenses; display; renewal; duplicates
- All licenses shall be for a period of two years
- Employees shall not be required to be licensed provided that the non-licensed employee have an identification card in his possession
Maintaining Fire Alarm Systems NFPA 72

- 10.4.4 Testing frequency
  - See Table 10.4.4
  - Weekly automatic testing by remotely monitored fire alarm control unit
    - Extend testing to annual
  - Detector sensitivity tested within 1 year of installation
    - Clean or replace if out-of-range

Example of Table 10.4.4

<table>
<thead>
<tr>
<th>System</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duct detectors</td>
<td>Annually</td>
</tr>
<tr>
<td>Electromechanical releasing devices</td>
<td>Annually</td>
</tr>
<tr>
<td>Fire extinguishing/suppression system switches</td>
<td>Annually</td>
</tr>
<tr>
<td>Fire – gas and other detectors</td>
<td>Annually</td>
</tr>
<tr>
<td>Fire-alarm box</td>
<td>Annually</td>
</tr>
<tr>
<td>Smoke detector functional test</td>
<td>Annually</td>
</tr>
<tr>
<td>Audible devices</td>
<td>Annually</td>
</tr>
<tr>
<td>Visible devices</td>
<td>Annually</td>
</tr>
</tbody>
</table>

Maintaining Fire Alarm Systems NFPA 72

- 10.6.2.3 A record shall be kept that includes the following information found in Figure 10.6.2.3:

Maintaining Fire Extinguishers Fire Code

- 906.1 Where required
  - In new and existing Group A
  - Within 30’ of commercial cooking equipment

- 906.2 General requirements
  - Installed and maintained to 906 and NFPA 10-07

Maintaining Fire Extinguishers Fire Code

- 906.4 Cooking grease fires
  - Compatible with automatic extinguishing agent
  - See 904.11.5

904.11.5 within 30’ travel distance of cooking equipment
Maintaining Fire Extinguishers
NFPA 10

• Chapter 7 Inspection, maintenance and recharging of portable fire extinguishers
  – Owner or owner’s designated agent is responsible
  – Qualified individuals shall perform the service
    • Certification required after August 17, 2008
    • Shall have manufacturer’s service manual
    • Have appropriate parts listed for the extinguisher
    • Provide replacements during service

• 7.2 Inspection
  – Manually inspected when put in service
  – Inspected every 30 days
    • Electronic monitoring
  – Inspection shall include:
    • Location
    • Not obstructed
    • Pressure gauge
    • Full (heft test)
    • Non-rechargeable pressure indicator

• 7.2.3 Corrective action
  – Deficiency found – correct immediately

• 7.2.3.1 Rechargeable extinguishers
  – Problem with pressure gauge
    – Fails heft test

• 7.2.3.2 Non-rechargeable extinguishers
  – Problems? Discharge and destroy...

• 7.3 Maintenance
  – Maintenance at intervals not to exceed 1 year
    • At hydrostatic test
    • When required due to failed inspection

• 7.3.1.2 Internal exam
  – Table 7.3.2.1.1.2

• 7.3.1.2 Stored pressure extinguishers
  – 6 year maintenance
    • If the extinguisher requires 12 year hydrostatic test
      – Subject to manufacturer’s maintenance procedure
Maintaining Fire Extinguishers
NFPA 10

• 7.3.2 Maintenance procedures
  – Thorough exam of basic elements
  – Components of electronic monitoring system
    • If provided
  – Follow procedures detailed in service manual
    • Check all mechanical parts
    • Check the extinguishing agent
    • Expelling means of all extinguishers
    • Physical appearance

• 7.3.3 Maintenance record keeping
  – Each extinguisher has tag indicating
    • Month/year maintenance was completed
    • Person performing the work
    • Name of the agency

Maintaining Fire Extinguishers
NFPA 10

• 7.3.2.2 Seals or tamper indicators
  – Tamper seal is removed during maintenance
    • Operate pin or locking device
  – Once maintenance is finished, install new seal

Maintaining Fire Extinguishers
NFPA 10

• Chapter 8 Hydrostatic testing
  – Completed by trained service technician
  – Test intervals to follow Table 8.3.1

Maintaining Hood Systems

• 609.4 Commercial kitchen exhaust hoods shall be inspected and maintained
  – NFPA 96 - 08
Maintaining Hood Systems
NFPA 96

• Chapter 11 Use and Maintenance
  – Exhaust system shall be “ON” when cooking equipment is “ON”
  – System shall not be operated if filters are removed
  – Instructions for manually activating fire suppression shall be posted
    • Reviewed with management and employees
  – Cooking equipment can’t be used if the fire suppression system is impaired

Maintaining Hood Systems
NFPA 96

• 11.4 Checking for grease build up
  – Entire system
  – Qualified individual(s)
    • Acceptable to AHJ

Maintaining Hood Systems
NFPA 96

• 11.6 Cleaning the exhaust system
  – If contaminated, cleaned by qualified individual(s)
    • Acceptable to AHJ
  – Fire suppression shall not be turned “off”
    • Exception - Qualified service technician
  – Access panel removed
    • Service tag affixed near panel door
      • Name of company
      • Date of cleaning/inspection

Maintaining Hood Systems
NFPA 96

• 11.6 continued...
  – Exhaust cleaning company
    • Certificate shall be maintained on site
      • Name of company
      • Name of person that did work
      • Date of cleaning/inspection
    • Provide written report at conclusion
      • Specify areas inaccessible or not cleaned
      • Submit copy to AHJ if required

Maintaining Hood Systems
NFPA 96

• 11.7 Cooking equipment maintenance
  – Inspection and maintenance of the cooking appliances shall be done annually
  – Equipment that collects grease
    • Below the surface
    • Behind the equipment
    • In the flue gas exhaust
      – Cleaned by qualified individual
      – Acceptable to AHJ

Maintaining Hood Systems
NFPA 96

• 12.1 Cooking equipment safety requirements
  – Cooking appliances requiring protection shall not
    • Be moved
    • Modified
    • Rearranged
  – Without prior re-evaluation of fire suppression system
Maintaining Hood Systems
Fire Code
• 901.4 ...required systems shall be extended, altered or augmented as necessary...

Means of Egress

Fire Code Chapter 10
• How do you know what is “new building” and what is “existing building” language?
• Check 1001.1 General

How do Sections 1028 and 1029 affect existing means of egress?
– 1028.1: Means of egress shall be maintained
– 1029.1: Means of egress in existing buildings shall conform

Fire Code Chapter 10
• 1001.1 General ...
– Sections 1003 through 1026
  • New construction
– Sections 1028 and 1029
  • Existing buildings

Fire Code Chapter 10
• 1028.2 Reliability
  – Exit access, exit, exit discharge
    • Continuously maintained
    • Full instant use
      – When the space is occupied
Fire Code Chapter 10

- 1028.2 ... when the area ... is occupied ...

Fire Code Chapter 10

- 1028.3 Obstructions
  - Free of things that prevent use

Fire Code Chapter 10

- 1028.4 Exit Signs
  - See 1011 (new construction)

Fire Code Chapter 10

- 1029.2 Locks and Latches
  - Readily operable
    - No key, tool, special knowledge

Fire Code Chapter 10

- 1029.3 Capacity of means of egress
  - Occupant load can't exceed the capacity of egress
  - Use 1004.1 to calculate occupant load
  - Use the following to calculate egress capacity
    - 1005.1
    - 1019.1
    - 1025.6
Fire Code Chapter 10

- How do you know the occupant load?
  - Check the file

**EXITING TAG**

<table>
<thead>
<tr>
<th># of Occupants</th>
<th>Load Factor</th>
<th>Occupancy Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,231 SF</td>
<td>82</td>
<td>15 net A2</td>
</tr>
</tbody>
</table>

Fire Code

Capacity of Means of Egress

- 1029.3 Capacity of means of egress
  - Occupant load shall not exceed capacity of means of egress
  - Capacity of the means of egress shall be calculated using
    - 1005.1 – we did this = 500 people
    - 1019.1 – we did this = 426 people
    - 1025.6 – we haven’t done this yet

Fire Code Chapter 10

- 1025.6
  - Width of means of egress for assembly
    - Aisles
    - Other means of egress

Smoke protected v. Not smoke protected

Exercise

A3 Funeral Home

Exercise

A3 Funeral Home
Exercise A3 Funeral Home

Calculating Egress Width for Aisle

Accessways

FC 1025

FC 1025.9.1

• 14 or fewer seats
• 12” between rows

1025.10
1025.10
13 Chairs in a row

12” distance required

1025.10

• More than 14 seats
• Door on either end
• 12” + 0.3” for seats over 14
• Clear width not to exceed 22 inches
• Not more than 100 seats in row

Exercise - 1025.10
20 Chairs in a row
Door on either side

0.3” X 6 chairs = 1.8”
12” + 1.8” = 13.8” distance

1025.10

• More than 14 seats
• Door on one end
• 12” + 0.6” for seats over 14
• Clear width not to exceed 22”

Exercise - 1025.10
20 Chairs in a row
Door on one side

0.6” X 6 chairs = 3.6”
12” + 3.6” = 15.6” distance

Calculate the Occupant Load
A5 Football Stadium

10 feet long
Calculating the Occupant Load
A2 Booth

Fire Code Chapter 10
Not Smoke Protected

1025.6.1(4) Aisle Width?

Fire Code Chapter 10

• 1029.4 Posting of occupant load
  – Conspicuous location
  – Near main exit to room or space
  – Approved, legible, permanent
  – Maintained by owner

Fire Code Chapter 10

• 1029.4 Where does posting go in this example?

Fire Code Chapter 10

• Not over occupant load....
Fire Code Chapter 10
• 1029.5 Overcrowding

“....when the Code Officials 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 use of...

Fire Code Chapter 10
• Whose responsible?

Fire Code Chapter 10
• 1029.7 Exit signs

– What the difference between 1029.7 and 1028.4?

Fire Code Chapter 10
• 604.4 – Maintenance for emergency power system:
  – NFPA 110 - 05: Standard for Emergency and Standby Power Systems
Fire Code Chapter 10

• 604.4 – Maintenance for emergency lighting
  – Activation test monthly
  – Power test annually
  • 90 minute duration

<table>
<thead>
<tr>
<th>Light Location</th>
<th>Test Date</th>
<th>Pass / Fail</th>
<th>Tested By</th>
</tr>
</thead>
<tbody>
<tr>
<td>By front door</td>
<td>12/15/10</td>
<td>Pass</td>
<td>Ben Dover</td>
</tr>
<tr>
<td>Near restrooms</td>
<td>12/15/10</td>
<td>Pass</td>
<td>Noah Buddy</td>
</tr>
<tr>
<td>In kitchen</td>
<td>12/15/10</td>
<td>Pass</td>
<td>P. U. Gass</td>
</tr>
<tr>
<td>Back door</td>
<td>12/15/10</td>
<td>Pass</td>
<td>L. C. Ewe</td>
</tr>
</tbody>
</table>

Lesson Five

Emergency Response, Complaints, Inspections, And Enforcement

Fire and Safety Inspections in Assembly Occupancies

Can you use the Property Maintenance Code for commercial buildings?

PM 101.2 Scope – Shall apply to all existing residential and non-residential structures and existing premises

1029.11 Aisles

Topics

Emergency Response
  Who, When, Why?
  Procedures for Emergency Response
  How are you contacted?

Unsafe, Unlawful Buildings
  What are they?

Inspection
  What can you see?

Enforcement

The 10 deadliest public assembly and nightclub fires in U.S. history:

1. Iroquois Theater, Chicago, IL; Dec. 30, 1903 - 602 killed
2. Cocoanut Grove, Boston, MA; Nov. 28, 1942 - 492 killed
3. Conway’s Theater, Brooklyn, NY; Dec. 5, 1876 - 285 killed
4. Rhythm Club dance hall, Natchez, MS; April 23, 1940 - 107 killed
5. Rhodes Opera House, Brevard, NC; Jan. 12, 1908 - 170 killed
6. Ringling Brothers and Barnum and Bailey circus tent, Hartford, CT; July 6, 1944 - 168 killed
7. Beverly Hills Supper Club, Southgate, KY; May 28, 1977 - 165 killed
8. Richmond Theater, Richmond, VA; Dec. 26, 1811 - 160 killed
9. The Station nightclub, West Warwick, RI; Feb. 20, 2003 - 100 killed
10. Happy Land Social club, Bronx, NY; March 29, 1990 - 87 killed

Source NFPA
Rhythm Club
April 23, 1940 in Natchez, Mississippi
209 Deaths
Decorative moss was draped from the rafters and the windows were boarded up to prevent outsiders from seeing the band and hearing the music.
The decorative moss produced methane gas and the fire is believed to have started by a careless match.
The building was destroyed in 1 hour.

Happyland
March 25, 1990, Bronx, New York
87 Deaths
The building was ordered closed November 1988 for code violations.
There was no follow up to the violations or closure.
The owners of the building were trying to close the building and evict the club operators.
Fire exits were blocked to prevent the entry of people who did not pay the cover charge.
Fire started in the stairway up to the club.

Station Nightclub
February 20, 2003, Warwick, RI
100 Deaths, 230 Injured, 132 Escaped
The Tour Manager ignited pyrotechnics which started the soundproofing foam on fire.
The building was totally engulfed in flames in five and one half minutes.
The photo was taken 40 SECONDS after the fire started.

Emergency Response
- 101.2 – Scope - Regulations affecting...
  - 1. The hazard of fire and explosion
  - 2. Conditions hazardous to life, property or public welfare.
  - 3. Fire Hazards in the structure
  - 4. Matters related to construction, alterations, or removal of fire suppression or alarm systems
- 102.1 – Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable
- 110 - Fire Department Notification - The fire chief shall notify the CEO of any fire or explosion involving any structural damage, fuel burning appliance, chimney, flue, or gas vent

How are you contacted?
Daytime
NIGHT TIME
Set it up before it happens
What do you do before you get there?

- Document: Time called
  - Time arrived
  - Who called, Chief Officer in Charge
  - Address of structure involved
  - Nature of the complaint
- What else will you need?
  - Camera, Cell Phone, copy of Fire Code, Property Maintenance Code

You have arrived, now what?

- Who should you see first?
  - Fire Incident
  - Police Incident
- The property owners, tenants, manager, employees?
  - IDENTIFY YOURSELF

Plan of Action

Who is in charge of the incident?
Who is the property owner, tenant or other responsible person?
What is the complaint?
Inspect, photograph
Write violations, unsafe building, unsafe equipment
Explain what needs to be done, fire watch, building permit, documentation of repairs and how to notify Code Enforcement of progress.

SECTION 505
PREMISES IDENTIFICATION

505.3 Buildings Utilizing Truss-Type Construction
- Identified for responders
- Title 19 NYCRR Part 1264 reprinted in Appendix H
107.1 When a structure or equipment is unsafe.....unfit for human occupancy... or unlawful....Such structure shall be condemned

What do these mean???

FC 107.2- Unsafe Structures: An unsafe structure is:
found to be dangerous to the life, health, property or safety of the public or the occupants
by not providing the MINIMUM safeguards to protect or warn the occupants in the event of fire,
or contains UNSAFE equipment
or is so damaged, or structurally unsafe,
or is such faulty construction or unstable foundation

FC 107.3 Structure Unfit for Human Occupancy
When the structure is
Unsafe, Unlawful, or because of the degree of disrepair or lack of maintenance

Constitutes a Hazard to the occupants or to the public
What is an UNLAWFUL STRUCTURE?

Is one found in WHOLE or PART:

A: To be occupied by MORE persons than permitted

B: Was erected, altered, or occupied contrary to law

Posting Unsafe Structures

FC 107.7 Notice

FC 107.6.1 Removal of Placard

FC 107.6 Prohibited Occupancy

What’s FC Section 311.5?

1 AM

FC 1029.5 – Overcrowding

“Shall be prohibited for buildings to be overcrowded……

Who’s Responsible?

The building owner, OR authorized agent shall be RESPONSIBLE

BUT WHAT DO YOU DO NOW?

What is an Evacuation Plan

FC 404.3.1 Evacuation Plan

1. Emergency Egress or Escape Routes
2. Procedures for Employees
3. Accounting
4. Identifying Rescue Personnel
5. Notifying the Occupants
6. Alternate means of notifying emergency services
7. Identifying personnel with more information
8. Description of emergency voice/alarm communications

Formal Remedies

Administrative Order

Order to Remedy

Stop Work Order

Document

Notify

Re-Inspect

Violation corrected

Violation not corrected

Formal Remedies

Voluntary Compliance

Renew / Formal

Involuntary Remedies

What is a Fire Safety Plan?

FC 404.3.2

1. Procedure for reporting fire
2. Life Safety Strategy
3. Site Plans
4. Floor Plans
5. Fire Hazards
6. Responsible persons for maintenance of fire systems
7. Responsible persons for maintenance/housekeeping
**Appearance Tickets**

What information do you need on the ticket?
- Court Name, address, City, State, Zip Code
- Defendants Name
- Address, City, State, Zip Code
- Complainants Name, Title, signature (this is you)
- Code Violation Numbers and Titles
- Date to appear and Time

**BUT.....**

Contact your municipalities attorney, court office FIRST

They can help you get started.

---

**Court Appearance**

You must be there

Bring ALL the information

The Codes

Be Prepared

---

**Summary**

Document Everything!!!!!!!!

Fire Inspections

Complaints

Emergency Complaints

Be Careful what you say and

Where you say it!!!!!!!

Make sure you let people know

you are taking pictures.

Follow up

on ALL complaints and

Inspections

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**REMEMBER!!!!!!!**

**COMPLIANCE IS WHAT WE ARE LOOKING FOR!!!**

Court appearances and fines are the very last choice.
Exercise

A3 Funeral Home
Exercise

A3 Funeral Home