

FIRE DEPARTMENT • CITY OF NEW YORK



STUDY MATERIAL FOR THE EXAMINATION FOR CERTIFICATE OF FITNESS FOR

**Fire and Non-Fire Emergency Drill Conductor (F-07)
Fire and Non-Fire Emergency Drill Conductor (Citywide) (W-07)**

All applicants are required to apply and pay for an exam online before arriving at the FDNY. It can take about 30 minutes to complete.

Simplified instructions for online application and payment can be found here:

<http://www1.nyc.gov/assets/fdny/downloads/pdf/business/fdny-business-cof-individuals-short.pdf>

Create an Account and Log in to:

<http://fires.fdnyccloud.org/CitizenAccess>

This book is provided to the public for free by the FDNY

Note: Fire and non-fire emergency drill conductors should conduct staff training and drills in buildings and occupancies that do NOT require a fire safety director (F-25/F-58) or Coordinator of Fire Safety and Alarm Systems (F-80). In buildings where fire safety directors or Coordinators of Fire Safety and Alarm Systems are required, the fire safety director or Coordinators of Fire Safety and Alarm Systems would be responsible for such duties.

Table of Contents

EXAM SPECIFIC INFORMATION FOR F-07/W-07 CERTIFICATE OF FITNESS	2
Application Information	6
Study Material and Test Description	7
1. Introduction	8
2. Emergency Preparedness Plan	9
2.1 Content	10
3. Definitions	12
4. Fire and Non-Fire Emergency Drill Conductor Responsibilities	15
4.1 Fire and Emergency Preparedness (FEP) Staff Training.....	15
Table 4.1 FEP STAFF TRAINING.....	16
4.2 Fire and Emergency Preparedness (FEP) Staff Training Content.....	17
4.3 Emergency Drill Best Practices	18
4.4 Fire Drill Procedure.....	20
4.5 Participation in Drills	22
4.6 Frequency of Drills.....	24
Table 4.2 EMERGENCY DRILLS	24
5. Recordkeeping	31
6. People who Require Assistance	32
6.1 Special Needs Occupants.....	32
6.2 English as a Second Language (ESL) Occupants	32
6.3 Reporting a Fire when Hearing Impaired or Unable to Speak.....	32
7. Emergency Procedures	35
7.1 Fire Alarms	35
7.2 Portable Fire Extinguishers.....	37
7.3 Different Types of Portable Fire Extinguishers	38
7.4 Labeling.....	41
7.5 Portable Fire Extinguisher Tags	42
7.6 Portable Fire Extinguisher Inspections	43
8. Fire Protection Systems Impairment	44
8.1 Out of Service Situations and Impairment	44
9. Safety Requirements	46
9.1 Medical Emergency	48
9.2 Bomb or other Explosion Threats	48
9.3 Chemical Incident or Release	48
10. Lithium-Ion Battery Safety	49
Appendix A. Fire Emergency Scenario	52
Appendix B. Medical Emergency Scenario	53
Appendix C. New York State Education Law	54
Section §807 Fire and emergency drills.....	54
Appendix D. New York State Labor Law 279	56
§279 Fire alarm signal systems and fire drills.	56
Appendix E. F-07/W-07 Reference Material	57

EXAM SPECIFIC INFORMATION FOR F-07/W-07 CERTIFICATE OF FITNESS

Save time and submit application online!

All applicants are required to apply and pay for an exam online before arriving at the FDNY. It can take about 30 minutes to complete.

Simplified instructions for online application and payment can be found here:

<http://www1.nyc.gov/assets/fdny/downloads/pdf/business/fdny-business-cof-individuals-short.pdf>

Create an Account and Log in to:

<http://fires.fdnyccloud.org/CitizenAccess>

REQUIREMENTS FOR CERTIFICATE OF FITNESS APPLICATION

General requirements:

Review the General Notice of Exam:

<http://www1.nyc.gov/assets/fdny/downloads/pdf/business/general-notice-of-exam-cof.pdf>

Special requirements for the: F-07/W-07 Certificate of Fitness:

- All current Fire Drill Conductor Certificates of Fitness, including the W-10, W-13, F-33, F-34, and F-35 are **NOT** renewable.
- Applicants who will perform the drills and/or staff training in different buildings/occupancies should apply for the W-07 C of F.
- Applicants who will be responsible to perform the drills and/or staff training in a specific building/occupancy should apply for the F-07 C of F. Generally speaking, if the applicants are employed in public assembly occupancies (e.g. theaters, catering halls, etc.), the applicants should apply for the F-07 C of F.

Application fee must be paid with online submission:

Accepted forms of payment:

- Credit/debit card (American Express, Discover, MasterCard, or Visa)
- Personal or company check or money order (made payable to the New York City Fire Department).

A convenience fee of 2% will be applied to all credit card payments.

For fee waivers submit: ***(Only government employees who will use their COF for their work-related responsibilities are eligible for fee waivers.)***

- A letter requesting fee waiver on the Agency's official letterhead stating applicant full name, exam type and address of premises; **AND**
- Copy of identification card issued by the agency

**Each testing opportunity requires a separate application and payment.
Retesting on the same calendar day is not permitted.**

REQUIREMENTS FOR ALTERNATIVE ISSUANCE PROCEDURE (AIP)

No AIP available. This certificate of fitness can only be obtained by passing the computer exam at the FDNY Headquarters.

EXAM INFORMATION

The **F-07/W-07** exam will consist of **40** multiple-choice questions, administered on a “touch screen” computer monitor. It is a time-limit exam. Based on the amount of the questions and reference material provided, you will have 61 minutes to complete the test. A passing score of at least 70% is required in order to secure a Certificate of Fitness.

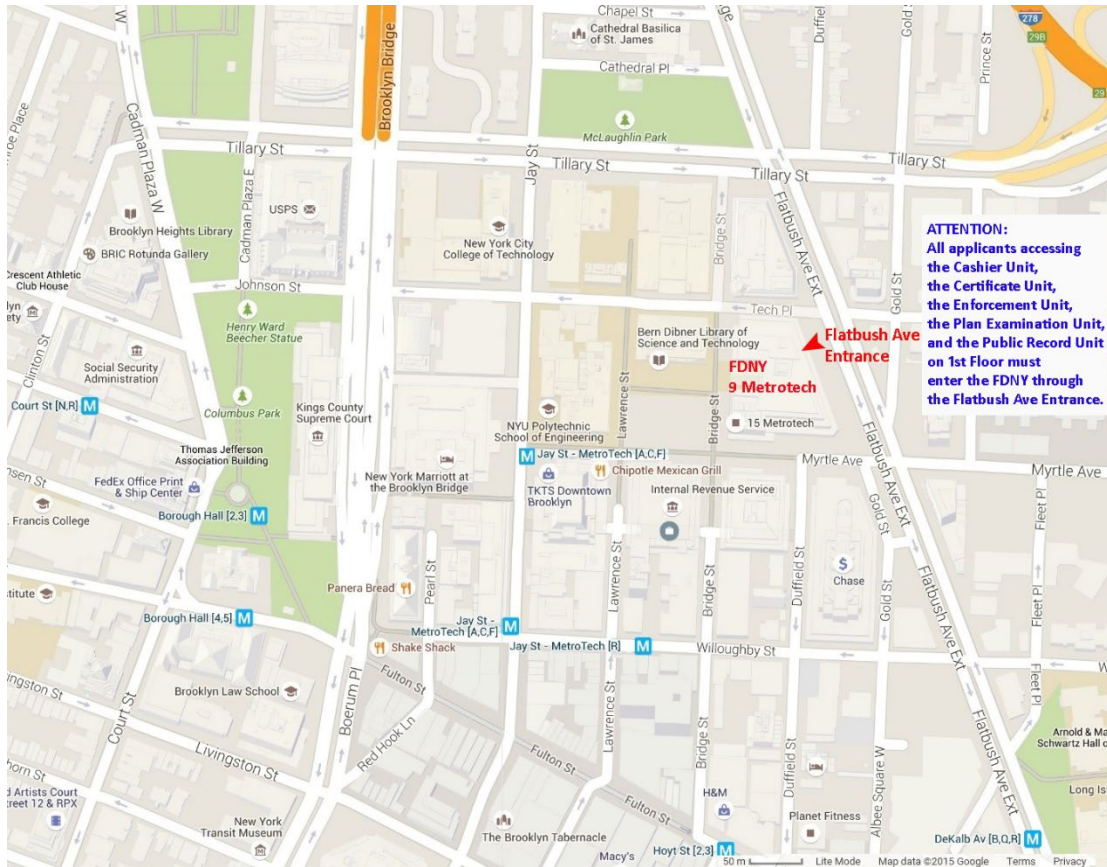
Special material provided during the exam: Study Material and booklets are not allowed to be used during the exam. If required for exam, Reference Material will be provided to you by Exam room personnel. Exam computer station will also prompt if reference material is required for your exam.

Please always check for the latest revised booklet at FDNY website before you take the exam.

<http://www1.nyc.gov/assets/fdny/downloads/pdf/business/cof-f07-noe-study-materials.pdf>

Exam site:

FDNY Headquarters, 9 MetroTech Center, Brooklyn, NY. Enter through the Flatbush Avenue entrance (between Myrtle Avenue and Tech Place).



RENEWAL REQUIREMENTS

General renewal requirements:

Review the General Notice of Exam:

<http://www1.nyc.gov/assets/fdny/downloads/pdf/business/general-notice-of-exam-cof.pdf>

Special renewal requirements for F-07/W-07 COF: None

The FDNY strongly recommends the F-07/W-07 COF holders to renew the COF on-line. To learn the simplified on-line renewal:

<http://www1.nyc.gov/assets/fdny/downloads/pdf/business/cof-simplified-renewal-short.pdf>

QUESTIONS?

FDNY Business Support Team: For questions, call 311 and ask for the FDNY Customer Service Center or send an email to FDNY.BusinessSupport@fdny.nyc.gov

SAMPLE QUESTIONS

Which of the following are allowed to be used while taking a Certificate of Fitness examination at 9 Metro Tech Center?

- I. cellular phone
- II. study material booklet
- III. reference material provided by the FDNY
- IV. mp3 player

- A. III only
- B. I, II, and III
- C. II and IV
- D. I only

Only reference material provided by the FDNY is allowed to be used during Certificate of Fitness examinations. Therefore, the correct answer would be A. You would touch "A" on the computer terminal screen.

If the screen on your computer terminal freezes during your examination, who should you ask for help?

- A. the person next to you
- B. the firefighters
- C. the examiner in the testing room
- D. the computer help desk

If you have a computer related question, you should ask the examiner in the testing room. Therefore, the correct answer would be C. You would touch "C" on the computer terminal screen.

If you do not know the answer to a question while taking an examination, who should you ask for help?

- A. the person next to you
- B. the firefighters
- C. the examiner in the testing room
- D. you should not ask about test questions since FDNY staff can not assist applicants

You should not ask about examination questions or answers since FDNY staff cannot assist applicants with their tests. Therefore, the correct answer would be D. You would touch "D" on the computer terminal screen.

Application Information

Requirements for Certificate of Fitness Applicants

If you currently hold any of the following Certificates of Fitness:

F-33: Fire Drill Conductor – Public Assembly
F-34: Fire Drill Conductor – Institution →
F-35: Fire Drill Conductor – Factory

These Certificates are **no longer renewable**. You should take the F-07 examination.

If you currently hold any of the following Certificates of Fitness:

W-10: Fire Drill Conductor – Public Assembly (Citywide)
W-13: Fire Drill Conductor – Institutions (Citywide) →

These Certificates are **no longer renewable**. You should take the W-07 examination.

If you are a new Certificate of Fitness applicant, you can take either the F-07 or W-07 Fire and Non-Fire Emergency Drill Conductor Certificate of Fitness Examination.

To apply for the F-07 or W-07 Certificate of Fitness, you should submit a letter of recommendation from your employer as part of your qualification requirements (see the notice of examination on page 4). The letter must be submitted to the Public Certification Unit, 9 Metro Tech Center, 1st Floor, Brooklyn, NY 11201. Once you pass the examination and your certificate is issued, the F-07/W-07 Certificate of Fitness is valid for **three years**.

Please refer to the Certificate of Fitness link on the FDNY website, shown below, for additional information:

www.nyc.gov/fdny/html/c_of_f/coff.shtml

Study Material and Test Description

This study material contains information you will need to prepare for the examination for the F-07 Certificate of Fitness for Fire and Non-Fire Emergency Drill Conductor.

This study material will not be provided to you during the test. It is critical that you read and understand this booklet to help increase your chance of passing this examination. The study material does not contain all of the information you need to know to perform the duties of a Fire and Non-Fire Emergency Drill Conductor. It is your responsibility to become familiar with all applicable rules and regulations of the New York City Fire Department, even if they are not covered in this study material. You need to be familiar with the 2014 *New York City Fire Code*, the 2008 *New York City Building Code* and the *Rules of the Fire Department of the City of New York* in order to adequately prepare for the examination. **You are responsible for checking the Certificate of Fitness page on the FDNY website for the most current study materials prior to taking the examination since the study material is updated frequently.**

About the Test

All questions on the Certificate of Fitness examination are of the multiple choice type with four alternative answers to each question. Only one answer is most correct for each question. If you do not answer a question or if you mark more than one alternative your answer will be scored as incorrect. Read each question carefully before marking your answer. There is no penalty for guessing. You will take the examination on a touch screen computer monitor. Applicants will receive their scores immediately at the conclusion of the test. A passing score of at least 70% is required in order to secure a Certificate of Fitness. There are **40** multiple choice questions on the examination.

Additional Information

For more detailed information regarding the test process, rules during testing, a downloadable version of the certificate of fitness application, certificate of fitness requirements, mail-in instructions, a schedule of fees, and any other information that may not be included in these study materials, please visit the link below.

Certificate of Fitness Website: www.nyc.gov/fdny/html/c_of_f/coff.shtml

1. Introduction

Persons performing the duties of a Fire and Non-Fire Emergency Drill Conductor (FEDC) must hold an F-07/W-07 Certificate of Fitness. Certificate of Fitness holders must maintain all qualifications and comply with all requirements applicable to such certificate holders throughout the term of their certificate. F-07 Fire and Non-Fire Emergency Drill Conductor Certificates of Fitness are premise-related and F-07 holders can work only at the location listed on their Certificate of Fitness. W-07 Fire and Non-Fire Emergency Drill Conductor Certificates of Fitness are citywide, and W-07 holders can work at more than one location with this Certificate of Fitness. Fire and Non-Fire Emergency Drill Conductors are not required to be on the premises at all times.

F-07/W-07 Certificates of Fitness are valid for a period not to exceed three years from the date of issuance. At the end of this period, the certificate expires unless the commissioner approves its renewal. Please be advised that certificate renewals shall be at the discretion of the commissioner in the interest of public safety. The department may review the certificate holder's qualifications and fitness and may require a certificate holder to complete a department-approved continuing education program and/or provide other proof of the holder's continuing qualifications and fitness.

Fire and non-fire emergency drill conductors should conduct staff training and drills in buildings and occupancies that do NOT require a fire safety director (F-25/F-58) or Coordinator of Fire Safety and Alarm Systems (F-80). In buildings where fire safety directors or Coordinators of Fire Safety and Alarm Systems are required, the fire safety director or Coordinators of Fire Safety and Alarm Systems would be responsible for such duties.

The use of the word "should" throughout these study materials generally refers to policies, procedures and/or best practices recommended by the FDNY, and may not be a codified requirement.

The use of the word "shall" throughout these study materials generally refers to a requirement of the Fire Code or the FDNY.

2. Emergency Preparedness Plan

The Fire Code requires that many types of buildings and occupancies prepare an Emergency preparedness plan. Emergency preparedness plans serve to assure that, in the event of a fire or emergency there are procedures in place that can be implemented to provide the information, guidance, direction and assistance needed to protect the safety of building occupants, including, if necessary, effecting their evacuation, relocation or sheltering in place. The plan is intended to assure that knowledgeable assistance is readily available on the premises to emergency response personnel responding to a fire or emergency at the premises.

The owner of any building required to have an emergency preparedness plan shall initiate the preparation of the plan for the premises in a form prescribed by the commissioner, and oversee its periodic review and amendment, in accordance with the requirements set forth in the 2014 Fire Code and the Fire Department Rules.

Buildings or occupancies that require a fire and non-fire emergency drill conductor should have their staff training and fire drills conducted by an FEDC Certificate of Fitness holder. The procedures to follow in the event of an emergency will be set forth in the Emergency Preparedness Plan and will vary depending on the type of occupancy, the height of the building and other requirements as may be set forth in the Fire Code or the rules. It is important that building owners refer to the most recent editions of the Fire Code and rules when creating or amending the emergency preparedness plan and determining the response to emergencies and the level of staffing that is required for their particular building or occupancy.

Effective fire and non-fire emergency drill conductors must have a working knowledge of the emergency preparedness plan for the buildings where they work. Fire and non-fire emergency drill conductors should be provided with an orientation from the building owner or other on-site personnel familiar with and responsible for the emergency preparedness plan before starting to perform their duties.

A copy of the emergency preparedness plan must be maintained on the premises in an approved location and it shall be made available at all times to Fire Department representatives immediately upon request. The plan should be kept at the fire command station if the building has one. For buildings that do not have a fire command station, the plan may be placed in an approved first responder box, secured by a citywide standard key, located in the building lobby.



Emergency preparedness plans must be reviewed and updated as necessitated by changes in staff assignments, use or occupancy of the building or its spaces, or the design and arrangement of the premises, but at a minimum, once a year. An entry must be made in the required log book (reference the **Recordkeeping** section on page 29 of these study materials) documenting the review of the plan and indicating the general nature of any updates that are required.

All owners, employers of building occupants and building occupants should cooperate in the development and coordination of the emergency preparedness plan.

Building owners and tenants should be familiar with the most recent editions of the Fire Code, FDNY rules, and with the policies and procedures of the Fire Department to determine if their building or occupancy is required to prepare an emergency preparedness plan.

2.1 Content

The content of the emergency preparedness plan should include, but is not necessarily limited to, the following:

1. The name and address of the business/occupancy, the type of business, the floors that are normally occupied, the approximate number of employees, and the hours of operation
2. The location of all entrances and exits (including emergency exits and fire escapes) and where they exit to (which street or other location)
3. Details regarding the Voice Communication Capability and Fire Protection Systems in the building and the name of the company responsible for maintaining them

4. The procedure by which a fire or other emergency is reported to the FDNY and the staff member(s) responsible for the reporting
5. The procedure for notifying building occupants of a fire or other emergency, and the staff member(s) responsible for the notification
6. The procedure for coordinating and notifying the staff in other occupancies (within a mixed occupancy building) during a fire or other emergency. Additionally, the staff member(s) responsible for the coordinating and notification, and the method of communication should be noted in the plan
7. The procedure for coordinating with firefighting, emergency medical service and other emergency response personnel, including notifying those personnel upon their arrival of the location of the emergency, and the staff member(s) responsible for the coordination
8. The means for receiving and the procedure for monitoring a public emergency notification system
9. The identity and location of CPR-Qualified staff (if CPR-Qualified Staff are available) on the premises, and how to contact them in case of an emergency
10. Procedures for identifying and assisting building occupants who require assistance because of an infirmity, disability or other special need and the staff member(s) responsible for assisting them
11. The procedure for the daily inspection of the premises to verify the following conditions, and the staff member(s) responsible for such inspection:
 - a. access to means of egress is unobstructed and unimpeded
 - b. combustible materials and combustible waste have been properly stored or removed from the premises
 - c. decorative vegetation is regularly watered or otherwise maintained
 - d. no smoking signs required by the Fire Code or Rules are posted
12. The procedure for the ongoing monitoring of the premises during regular business hours to verify compliance of the following requirements, and the staff member(s) responsible for monitoring:
 - a. that the premises do not become overcrowded
 - b. that the allowable use of open flames and open flame devices is being conducted properly and safely
 - c. that the prohibition against smoking, where required by the Fire Code or the FDNY rules, is being observed

3. Definitions

Building Occupants – All persons in the building, including employees, tenants, building staff and visitors.

Central Station Company – A facility that receives alarm signals from a protected premise and retransmits or otherwise reports such alarm signals to the FDNY.

Evacuation – the emptying of a building of all building occupants in response to a fire or an emergency.

Emergency Preparedness Plan – The emergency preparedness plans required ensure that, in the event of a fire or a non-fire emergency, there are procedures in place that can be timely implemented to provide the information, guidance, direction and assistance needed to protect the safety of building occupants, including, if necessary, effecting their evacuation, relocation or sheltering in place. Such emergency preparedness plans shall further serve to assure that knowledgeable assistance is readily available on the premises to emergency response personnel responding to a fire or non-fire emergency at the premises. *The emergency preparedness plan is also known as the fire safety and evacuation plan and/or emergency action plan.*

Fire and Emergency Preparedness (FEP) Staff – The individuals identified in the emergency preparedness plan (also known as the fire safety and evacuation plan or emergency action plan) as responsible for the implementation of such plan.

Fire Drill – A training exercise by which building occupants are familiarized with and/or practice the procedures for the safe, orderly and expeditious sheltering in place, in-building relocation, partial evacuation, evacuation, or any combination thereof, in the event of a fire, in accordance with the emergency preparedness plan for the premises.

Fire Protection System – Approved devices, equipment and systems or combinations of systems used to deter a fire, activate an alarm, extinguish or control a fire, control or manage smoke and products of a fire or any combination thereof, including fire extinguishing systems, fire alarm systems, sprinkler systems and standpipe systems.

In-Building Relocation – the controlled movement of building occupants from an endangered area of a building to an in-building relocation area within the same building in response to a fire or non-fire emergency.

In-Building Relocation Area (IBRA) – a designated area in a building to which building occupants may be relocated to in accordance with the emergency preparedness plan for the premises.

Manual Fire Alarm Box – A manually operated device used to initiate an alarm signal.

Mixed Occupancy Building- Buildings that have multiple occupancies. These are referred to as "mixed occupancies" and the different parts will be required to meet the fire code for each specific area. An example of this is a shopping mall with underground parking. The shopping area itself is Group M (mercantile), while the parking area would qualify as Group S (storage). Another example would be a luxury

apartment building that has a grocery store on the first floor. The apartments would be considered Group R (residential) and the grocery store would be considered Group M (mercantile).

Non-Fire Emergency – A biological, chemical or nuclear incident or release; declaration of emergency by a lawful authority; explosion; medical emergency; natural disaster; or other emergency affecting the premises or the safety of building occupants.

Non-Fire Emergency Drill – A training exercise by which building occupants are familiarized with and/or practice the procedures for safe, orderly and expeditious sheltering in place, in-building relocation, partial evacuation or evacuation, or combination thereof, in the event of a non-fire emergency, in accordance with the emergency preparedness plan for the premises.

Off-Line - Those periods of time when a Central Station Company will, at the request of a building owner, not transmit fire alarm signals received from a building to the Fire Department. Fire alarm systems can be taken "off-line" only for Fire Department approved purposes associated with the prevention of unnecessary and unwarranted alarms.

One-way Voice Communication – enables the FEDC, Staff, or Fire Department personnel to make announcements from the lobby to building occupants in their apartments, offices, classrooms, or in building stairwells. One way voice communication is a public address system that is capable of making announcements from the fire command center to all parts of the buildings. The one-way voice communication system can be used to warn and instruct building occupants in case of a fire or non-fire emergency.

Owner – the fee owner or lessee of the building, or other person or entity having charge thereof.

Partial Evacuation – the emptying of a building of some but not all building occupants in response to a fire or an emergency.

Public Address System – an electronic sound amplification and distribution system with a microphone, amplifier and loudspeakers, used to allow a person to address a large public. Public Address systems enable voice communications from a central location, usually in the building lobby.

Regular Business Hours – for the purposes of this study material, regular business hours refers to any time and any day in which the referenced building is open to the public or business is being conducted. For a more complete definition, please refer to Section 402 of the 2008 Fire Code.

Shelter in Place – the precaution of directing building occupants to remain indoors, at their present location, in response to a fire or non-fire emergency.

Two-way Voice Communication – a form of transmission in which both parties involved have the ability to transmit information. This enables the FEDC, staff, or Fire Department personnel to communicate with building occupants or each other throughout the building. This is especially useful during an emergency, and allows

staff members to report the conditions of a fire emergency from the fire floor back to the FEDC in the lobby at the fire command center. Two way voice communication uses warden phones that are placed at several locations throughout the building, usually near the exit stairways in the building.

Unnecessary Alarm – An alarm signal transmitted by a fire alarm system which functioned as designed, but for which a department response proved unnecessary. An example of an unnecessary alarm is an alarm triggered by smoke from a lit cigarette in a non-smoking area, when the presence of such smoke does not implicate fire safety concerns.

Unwarranted Alarm – An alarm signal transmitted by a fire alarm system which failed to function as designed as a result of improper installation, improper maintenance, malfunction, or other factor. Examples of unwarranted alarms are alarms resulting from improper smoke detector placement, improper detector setting for installed location, lack of system maintenance, and control panel malfunction.

Voice Communication Capability – The ability to communicate to the occupants of a building or occupancy, whether by means of a fire alarm system with one-way or two-way voice communication or other approved means of communication.

4. Fire and Non-Fire Emergency Drill Conductor Responsibilities

Fire and non-fire emergency drill conductor C of F holders are imperative to the safety of building occupants and employees, because they conduct drills which educate building participants about the fire safety features of the building or occupancy, the exits available, and the proper procedures to follow in case of an emergency. FEDCs must be competent personnel with the ability to identify problems and alter procedures to meet existing conditions. FEDC Certificate of Fitness holders should be fully familiar with the details of the emergency preparedness plan and should ensure that staff training and fire and non-fire emergency drills are conducted as required by the Fire Code.

The owner should designate a competent person to be certified by the Fire Department to act as the fire and non-fire emergency drill conductor C of F holder who should be responsible for conducting staff training and fire and non-fire drills as required by the Fire Code. The fire and non-fire emergency drill conductor and staff must possess such qualifications and/or hold such certificates of fitness as required by the Fire Code. The owner shall ensure that adequate staff is present on the premises during regular business hours and at other times when the building is occupied, to perform the duties and responsibilities set forth in the emergency preparedness plan. The FEDC may not be on the premises during an actual emergency.

4.1 Fire and Emergency Preparedness (FEP) Staff Training

Fire and Non-Fire Emergency Drill Conductors should ensure that FEP staff is trained in the performance of their duties in accordance with the emergency preparedness plan. Training should consist of both an initial training session and refresher training as follows:

Initial training: FEP staff members should receive 1 hour of initial training (unless otherwise noted in Table 4.1) in the emergency preparedness plan upon the commencement of their authority and duties in the building. Such training should be for the duration necessary to familiarize FEP staff members with their duties pursuant to the emergency preparedness plan, but in no case less than as may be indicated in Table 4.1.

Refresher training: FEP staff should receive refresher training at such frequency and for such duration as noted in Table 4.1. It is important to understand that all required periodic training is not required to be conducted in a single training session. For example, when training is required to be conducted quarterly for 1 hour, conducting training for 20 minutes once a month over a period of three months would satisfy this requirement.

Training methods: FEP staff training should be in the form of live instruction, but may be supplemented by video presentations and/or the distribution of other educational materials.

Training may be conducted in the form of approved computerized training, without live instruction, provided that such computerized training is interactive, includes an evaluation of the FEP staff members' understanding of the training materials, and is

not conducted in lieu of live instruction for more than one half of the required staff training sessions per year.

Table 4.1 FEP STAFF TRAINING

Occupancy	Examples	Initial FEP Staff Training	Refresher FEP Staff Training
Group A	Theaters, restaurants and catering halls	1 hour	1 hour quarterly
Group B colleges and universities	Colleges and universities	1 hour	1 hour annually
Group B office	Office requiring a Fire Safety Director	Refer to Fire Code Table 406.2(1) and Table 406.2(2)	Refer to Fire Code Table 406.2(1) and Table 406.2(2)
Group B office	All others	1 hour	1 hour annually
Group E educational	Day care facilities	1 hour	1 hour annually
Group F	Factories	1 hour	1 hour annually
Group I-1	Rehabilitation centers, assisted living facilities	30 minutes	30 minutes every 2 months
Group I-2	Hospitals, nursing homes, mental hospitals	As long as necessary to familiarize FEP staff members with their duties.	Monthly drills distributed as follows: [see note a] Day shift: 3 drills per year Evening shift: 6 drills per year Night shift: 3 drills per year
Group M	Department stores	1 hour	1 hour annually
Group R-1	Dormitories, homeless shelters, hotels and sorority and fraternity houses	1 hour	1 hour quarterly on each shift
Group S	Storage facilities such as warehouses and storage rooms	1 hour	1 hour annually

Notes:

- a. *In Group I-2 occupancies, staff training may be conducted throughout the entire occupancy or in specific areas of the occupancy, but training sessions must be conducted in each and every area of the occupancy at least once over the course of 1 year.*

4.2 Fire and Emergency Preparedness (FEP) Staff Training Content

Fire and non-fire emergency drill conductors should ensure that the FEP staff is fully trained on their duties and their responsibilities during a fire drill or during a fire or non-fire emergency. Fire and non-fire emergency drill conductors should cover the following content:

- The appropriate actions to take upon discovering a fire (for an example of a fire emergency scenario, reference Appendix A)
- The appropriate actions to take in a non-fire emergency, such as a medical emergency (for an example of a non-fire emergency scenario, reference Appendix B)
- The appropriate actions to take if a fire or non-fire emergency occurs **DURING** a drill
- The building's fire-related features such as, but not limited to, sprinklers, fire exits, pull stations, fail-safe devices, and warden phones (if applicable)
- How to activate the fire alarm throughout the building (if applicable)
- The procedure for calling the Fire Department and the information that should be provided, as follows:
 - provide name and address of the emergency condition
 - provide exact location (floor, room) of the emergency condition if known
- The procedure to follow upon the sound of the fire alarm tone (if applicable)
- The procedures for alerting building visitors of the emergency condition and directing them to the exits
- Locations of assembly areas and the evacuation procedures for building occupants to reach such areas
- Location of all exits and escape routes, especially those not in regular use
- The importance of keeping fire doors closed to prevent the spread of fire, heat and smoke
- The reasons why elevator use is prohibited during a fire emergency
- The importance of general fire safety, including daily housekeeping
- The location and number of portable fire extinguishers
- The typical types of fires that start in buildings/occupancies and how to prevent them (see Table 7.1 Typical Causes of Fire)
- The locations of all egress stairs and their designation (Stair A, Stair B, Stair C)

- Location where each stair terminates (interior lobby, exterior of building, etc.)
- Operation of the fire alarm panel (activate, acknowledge, silence alarms; on/off line procedures) if applicable
- If the fire alarm system has voice communication capabilities, the person responsible for making an announcement, the language that should be used (if other than English), and how to provide clear direction to building occupants

Depending on the specific type of building or occupancy, the exact content of staff training may differ. Training may be modified based on a building's available fire protection systems.

4.3 Emergency Drill Best Practices

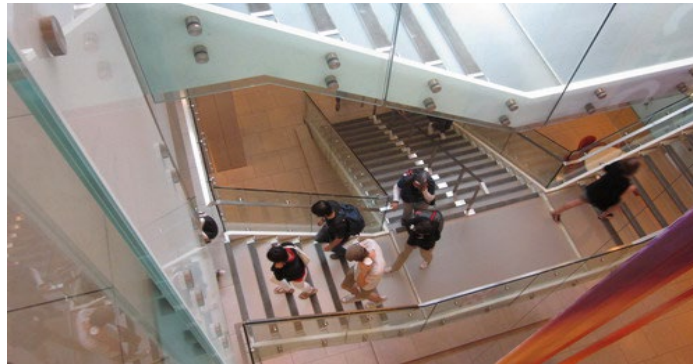
Drills and other forms of emergency education should be conducted to enhance the fire and non-fire emergency preparedness of building occupants, including building staff and employees of building tenants. Drills shall serve to educate building occupants as to the proper actions to take in the event of a fire or other emergency and the primary and secondary evacuation and in-building relocation routes. Drills and educational sessions should be conducted in accordance with the standards, procedures and requirements of the Fire Department Rules and the emergency preparedness plan associated with the building, including their subject matter and duration. Drills should be in the form of live instruction, except as otherwise authorized by the Fire Department.

Drills should include procedures to ensure that all persons in the building and subject to the drill actually participate. Ideally, drills should be unscheduled, and employees and occupants of the building should not know the time of day they are taking place. However, depending on the building or occupancy, the FEDC may choose to inform building occupants that a drill will be taking place on a particular day so that their workload or schedule can be altered to ensure their participation in the drill. **Drills shall be conducted at varying times of day.** They shall be held with enough frequency to familiarize all building occupants with the drill procedure and to have the conduct of the drill a matter of established routine. If drills are continuously held in the same manner at the same time, participants may lose interest in the drills and will be less prepared for a variety of different emergencies.

Actual fires and emergencies are always unexpected. Any fire alarm activation within a building that is not planned, or preceded by an announcement indicating that it is not an emergency, must be treated as an actual fire condition. Fire and non-fire emergency drill conductors should be aware that if drills are allowed to be considered a routine exercise, there is potential danger that in an actual emergency, an evacuation or relocation will not be successful. If drills are always held in the same way at the same time, they lose their value. Employees and building occupants may panic if in an actual emergency it becomes dangerous to follow the exact circumstances presented by the routine drill. FEDCs and their staff should also have a plan in place for the rare situation in which an actual fire or non-fire emergency occurs during a drill.

Drills should discuss possible emergency situations including fire and non fire conditions. FEDCs are encouraged to use fire and non-fire emergency scenarios (see Appendices A and B) since practicing these scenarios will help participants and building occupants apply important drill concepts.

FEDCs should ensure that drills use different stairways and means of egress depending on the assumption that fire or smoke could be present and could prevent access to the normal means of egress or relocation areas. FEDCs should ensure that non-fire emergency drills are conducted as well. Discussions between FEDCs and FEP staff should include procedures to follow during medical emergencies, bomb threats, and natural disasters. Drills should be designed to familiarize the occupants with all available means of exit, particularly emergency exits that are not normally used during regular occupancy of the building.



Prior to conducting a drill in any building or occupancy, FEDCs should ensure that they are familiar with all key aspects of the building or occupancy. As part of their preparation, FEDCs should be conscious of the following:

1. The presence of vacant floors so that FEDCs can check for improper storage or other possible fire hazards
2. The FEDC should review the log book to look for any recent Fire Department activity in the building, such as fires or other emergencies and false alarms. If there was recent Fire Department activity in the building the FEDC can use that information as an educational tool when conducting a drill and after the drill to receive feedback on drill procedures
3. Modifications to the fire alarm system should be reviewed
4. The floors that will participate in the drill, the letters of each stairwell and the floors they serve. Participants may have questions about which stairs serve the floor they work on and where the stairwells terminate
5. Awareness of the location and functionality of emergency lighting throughout the building
6. Complete familiarity and understanding of the Emergency Preparedness Plan in the building or occupancy
7. FEDCs should prepare a written drill plan prior to conducting the drill as a

means to ensure that important information is not forgotten once the drill begins.

8. The location of the closest emergency call box
9. Hot work or any construction going on in the building

4.4 Fire Drill Procedure

The purpose of conducting fire drills is to provide training exercises by which building occupants are familiarized with and/or practice the procedures to be followed in the event of fire. The emergency preparedness plan for a particular building may or may not call for the full evacuation of the building or the partial evacuation of the building.

If an emergency preparedness plan requires that the building be partially evacuated or fully evacuated in the event of a fire alarm, fire drills conducted to meet the requirements of the FDNY do not require that you partially evacuate or fully evacuate the building. This is the case provided the drill conducted familiarizes the building occupants with the procedures to follow in the event of a fire. However, nothing precludes a building owner from conducting such partial evacuation or full evacuation as a component of the drill.

The specific steps fire and non-fire emergency drill conductors should take while conducting a fire drill will differ depending on the type of occupancy or building and the specific emergency preparedness plan. It is the responsibility of the FEDC and the FEP staff to know the specific requirements for the building where the drill is being conducted. Fire and non-fire emergency drill conductors should at a minimum, follow the steps below when conducting a drill in which the emergency preparedness plan calls for the total evacuation of building occupants in the event of a fire.

1. Call Central Station Company and take the fire alarm system **OFF-LINE** to avoid an unnecessary alarm.
2. Upon **confirmation** from the Central Station Company, document that the fire alarm system is off-line in the fire alarm logbook.
3. Report to the fire alarm panel.
4. Make an announcement (or otherwise notify building occupants as outlined in the emergency preparedness plan) that a drill is taking place, and that any tones, flashing lights, or sounds heard are a part of the drill. Inform building occupants that they will be made aware if an actual emergency occurs during the drill.
5. Manually open any allowable obstructions to egress (i.e. automatic turnstiles that require an ID card swipe to open) if in-building relocation, partial evacuation or total evacuation is a component of the drill.

Before Drill

During Drill



6. When an evacuation is a component of the drill, building occupants should leave the building and gather at a designated assembly area, where they should remain until a recall or dismissal signal is given.



7. Check to ensure that the automatic fire doors in the building close. If they do not close, this must be brought to the attention of the Impairment Coordinator.

8. When the drill calls for partial or total evacuation, send a person or multiple people to search the floors (sweep the building) to ensure that the building or building portion is empty of occupants.

9. When the drill calls for partial or total evacuation, determine if all occupants have been successfully evacuated and accounted for at the assembly point.

10. Restore the fire alarm system to normal operation condition if altered for drill purposes.

11. Make an entry in the fire drill log detailing the drill.

12. Call Central Station Company and request that they put the Fire Alarm System back “on-line.” Upon confirmation, document that the fire alarm system is on-line.

The fire alarm system may be activated each time a fire drill is conducted to initiate the drill and familiarize building occupants with the alarm tones. However, if the fire alarm system in the building is connected to a central station, it is the responsibility of the FEDC to notify the Central Station Company that a drill is being conducted and that on behalf of the building owner, they would like to request to take the fire alarm system off line. **If the FEDC fails to do this, and the Fire Department responds to the premises unnecessarily, the building owner will be subject to violations and possible fines for unnecessary and unwarranted alarms.**

4.5 Participation in Drills

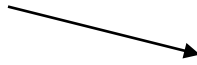
All regular building occupants shall participate in fire and non-fire emergency drills. In some cases, all building occupants, including visitors, must participate. A single drill should address both fire and non-fire emergency preparedness. All drills should mention that different directions may be given to building occupants depending upon whether there is a fire or other emergency, and the nature of the non-fire emergency.

The FEDC should evaluate the performance of building occupants and FEP staff during the drills and provide feedback to them post-drill. The FEDC should provide written materials to all FEP staff members at this time, summarizing the important lessons of the drill. This is recommended since receiving both a written document and verbal instruction should help FEP staff members retain important drill information.

FEDCs should also seek participant feedback to identify issues and the need to make changes in the implementation of the emergency preparedness plan. The FEDC should take questions from participants to ensure that any confusion or necessary clarification is addressed. Throughout the drill, the FEDC and FEP staff should pay particular attention to the following:

- Difficulties experienced in determining that all building occupants are accounted for
- Difficulties experienced by people with disabilities or other special needs
- Unnecessary delays or unsafe actions in implementing the emergency preparedness plan, such as building occupants stopping to collect personal items or attempting to use the elevators

- Ensuring that drills are conducted in a safe and orderly manner



- Identifying any problems with the fire alarm system
- Discuss how to evacuate via the nearest unaffected exit (if necessary). Explain the importance of checking the door for heat with the back of the hand in an actual fire emergency. Inform occupants of alternate exits to use if their exit door is hot.
- Discuss that smoke from a fire will rise and that in some circumstances (such as a heavy smoke condition) building occupants may be required to remain low to the floor and crawl along the wall in order to safely reach an exit.
- Monitoring whether the evacuation (if necessary) or other procedures in the emergency preparedness plan for the building are performed as required
- Determining the amount of time it takes to implement the evacuation of the building (when evacuation is a necessary part of the drill)
- Visually inspecting the building for any exit, stairway or hallway obstructions
- Ensuring that self-closing doors close on their own and are not propped open
- Ensuring that there are no locks, bolts or chains installed on exits while the building is occupied



FEDCs should ensure that all those required to participate in a drill do so. If a building occupant refuses to participate in a drill, the FEDC should inform the building owner that the person did not participate. After discussing the drill with the staff and building occupants, the FEDC should thank everyone for participating and answer any drill related questions.

4.6 Frequency of Drills

Required drills should be conducted in accordance with Table 4-2, *Emergency Drills*, below. Drills must be held with sufficient frequency to familiarize occupants with the drill procedures and to establish the drill as a matter of routine. It is the responsibility of the FEDC to understand and adhere to the specific requirements of the building or occupancy that they are responsible for.

Table 4.2 EMERGENCY DRILLS

Occupancy Group	Example	Who must participate?	Drill Frequency
Group A [See note a]	Theaters, restaurants, catering halls	Regular building occupants only (Participation of patrons and guests not required)	Semi-annually [see note b]
Group B colleges and universities	Colleges and universities	All building occupants	In accordance with NYS Education Law
Group B office	Office requiring a Fire Safety Director	All building occupants	Refer to Fire Code Table 405.2 and Section 405.3
Group B office	All others	All building occupants	Quarterly for the first two years after the issuance of the certificate of occupancy, and semi-annually after that [see note b]

Occupancy Group	Example	Who must participate?	Drill Frequency
Group E day care facilities	Day care facilities	All building occupants	Monthly
Group E educational	Schools and educational facilities	All building occupants	In accordance with NYS Education Law
Group F	Factories	All building occupants	Monthly
Group I-1	Rehabilitation centers, assisted living facilities	All building occupants	Bi-monthly [See notes c and d]
Group I-2	Hospitals, nursing homes, mental hospitals	Regular building occupants only (Participation of patients and guests not required)	Semi-annually [see note b]
Group M	Department stores	Regular building occupants only (Participation of patrons and guests not required)	Semi-annually [see note b]
Group R-1 dormitories and sorority and fraternity houses	Dormitories and sorority and fraternity houses	All building occupants	In accordance with NYS Education Law
Group R-1 homeless shelters	Homeless shelters	All building occupants	Monthly on each shift
Group R-1 hotels	Hotels	Regular building occupants only (Participation of patrons and guests not required)	Quarterly on each shift
Group S [See note b]	Storage facilities such as warehouses and storage rooms	Regular building occupants only (Participation of patrons and guests not required)	Semi-annually [see note b]

Notes:

- a. *Recommended by FDNY, but not required*
- b. *Semi-annually is defined as “twice a year,” or more specifically, every six months*
- c. *In the first year of operation of an I-1 building or occupancy, drills shall be conducted monthly*
- d. *Bi-monthly is defined as “once every other month.” For example, if a drill is conducted in January, another should be conducted in March of the same year*

Group B and Group E Educational Occupancies

In educational occupancies, familiarizing faculty and other building occupants with the appropriate actions to take in either a fire or non-fire emergency is of paramount importance. Educational occupancies include private and public schools, colleges and universities which are most often occupied by children or young adults. This population is especially vulnerable in an emergency situation. Past tragedies at schools such as at Sandy Hook, Virginia Tech and Columbine High School have demonstrated that all building occupants must be prepared for all types of emergencies, not just fires. Fire and Non-Fire Emergency Drill Conductors in educational occupancies are imperative in keeping students, faculty and other building occupants safe. During an actual emergency situation, the FEDC may not be on the premises. Since this is the case, it is the responsibility of the FEDC to train faculty and building occupants in the appropriate procedures to follow during emergency situations.

As outlined in the “Emergency Drill Best Practices” section, all building occupants should participate in emergency drills. Emergency drill times should vary, and different means of egress and stairwells should be used. Each drill should be treated as an actual emergency, which is of the utmost importance with a student population. If the FEDC treats each drill as if it were an actual emergency, there is a better chance that students and other building occupants will follow the practiced procedures during a real emergency.

Fire and non-fire emergency drills are critical to maintaining an orderly environment. Frequent drills enable students, staff and faculty to be prepared in the event of an emergency. NYS Education law requires a minimum of 12 drills each school year for every public or private school or educational institution within the state, other than colleges or universities. Eight of those drills are required to be held between September first and December first of each such year. Additionally, NYS Education law requires a minimum of 3 drills each year in colleges and universities. (Please reference Appendix C for the full detail of the NYS Education law)

At the beginning of the school year, Fire and Non-Fire Emergency Drill Conductors should ensure that a fire drill takes place as soon as feasible. This will identify any issues with the drill procedures right away and give the FEDC time to modify those processes if necessary. FEDCs in schools may also find the following best practices helpful:

- Assign special needs occupants to an adult or another student so that they have someone to assist them during drills and during a fire or non-fire emergency
- Determine alternate accommodations for special needs occupants when necessary
- During a drill, FEDCs should instruct faculty that they should be the last to leave their classroom to ensure that no student is left behind
- FEDCs should instruct faculty to shut their classroom doors and any hallway doors as they evacuate to prevent the spread of smoke or fire

- FEDCs should instruct faculty to account for each student once they arrive at their designated meeting place
 - Faculty or other staff may choose to use their updated class roster to ensure that everyone has made it out of the building safely.
- Faculty may choose to keep important emergency paperwork either on their person or close by so that it can be retrieved easily during a fire or non-fire emergency. This paperwork may contain the following:
 - Updated class roster
 - Emergency contact information for students
 - Fire drill exit route
- FEDCs may encourage faculty to post maps that detail multiple means of egress and the plan of exit during a fire drill. Maps should be posted conspicuously by the door or in another location noticeable to someone unfamiliar with the classroom, such as a substitute teacher or visiting student.
- In addition to evacuations and partial evacuations, sheltering in place should be practiced during emergency drills. Sheltering in place may be the best option, depending on the type of emergency.
- Ensure that students are aware of all of the exits from each room and that they are also aware of the location of each door and window
- Instruct faculty to keep all doors and windows unobstructed so that they are available for exit
- Instruct faculty to keep hallways and walkways in rooms clear to avoid tripping hazards or blocking a means of egress
- Be familiar with the school's fire protection system, including the location of fire alarm pull stations and sprinklers
- In addition to the FEDC, teachers, principals, professors and any other administrative staff should be familiar with the location of and how to operate a portable fire extinguisher

Fire and Non-Fire Emergency Drill Conductors in educational occupancies should be aware that most fires in schools occur between the hours of 8:00 AM and 5:00 PM, which is during the time when school is in session. This is also the time of day when there are the most people in the building. Fires in schools are usually started in the bathroom or hallway, most likely since students are not watched as closely in those areas. Fires in bathrooms may be set intentionally by students, or accidentally by students smoking. Fire and Non-Fire Emergency Drill Conductors and other building occupants should be aware of this and immediately report any suspicious behavior that is witnessed.

Fires in educational occupancies may also occur in the cafeteria kitchen, laboratories, classrooms set up for home economics and industrial arts, offices and storage areas. Some of these types of classrooms, such as science or research laboratories may require additional permits or certificates of fitness from the FDNY. Specifically, all non-production laboratories, including those in grade schools, high schools and those found in colleges and universities are required to operate under the supervision of a C-14 Certificate of Fitness for Supervising Non-Production Chemical Laboratories holder. It is advisable for the Principal, Safety Officers and other supervisory staff to be prepared for other non-fire emergencies including medical emergencies or incidents requiring assistance of the NYPD, FDNY or other first responders.

Frequent causes of fires in educational occupancies include overloaded electrical outlets, the improper use or storage of flammable liquids and the accumulation of trash on school property. FEDCs should pay particular attention to potential fire hazards when there is construction occurring on school premises. Construction equipment may unintentionally block means of egress, hallways and stairwells that would normally be used to evacuate the building during a fire drill or fire or non-fire emergency. If this is the case, Fire and Non-Fire Emergency Drill Conductors may need to determine alternate evacuation routes and disseminate that information to all building occupants.

Group I-1

Emergency preparedness plans in Group I-1 buildings should include special staff actions, including fire protection procedures necessary for residents, and should be revised upon admission of any resident with special needs. In Group I-1 buildings, residents capable of assisting in their own evacuation shall be trained in the proper actions to take in the event of a fire. The training shall include actions to take if the primary escape route is blocked. Residents shall be trained to assist each other in case of a fire to the extent their physical and mental abilities permit them to do so without additional personal risk. Fire drills shall involve the actual evacuation of all residents to a selected assembly area.

Group I-2

In Group I-2 buildings, during fire drills, the movement of patients to a safe area or to the exterior of the building is not required.

When fire drills are conducted after visiting hours or when patients or residents are expected to be asleep, a coded announcement is allowed instead of audible alarms. Hospital employees should be periodically instructed and kept informed of their duties with respect to the emergency preparedness plan.

For health care occupancies, the proper protection of patients requires the prompt and effective response of health care personnel during an emergency. The basic response required of staff should include the following:

1. Removal of all occupants directly involved with the fire emergency
2. Transmission of an appropriate fire alarm signal to warn other building occupants and summon staff
3. Confinement of the effects of the fire by closing doors to isolate the fire area
4. Relocation of patients as detailed in the health care occupancy's emergency preparedness plan.

Health care occupancies are able to conduct fire drills without disturbing patients by choosing the part of the building to drill in advance and by closing the doors to patients' rooms or wards in the area before the start of the drill. The purpose of a fire drill in a Group I-2 occupancy is to test and evaluate the efficiency, knowledge, and response of institutional personnel in implementing the emergency preparedness plan.

Group R-1

In Group R-1 occupancies, a diagram depicting two evacuation routes should be posted on or immediately adjacent to every required egress door from each hotel guest room, motel guest room, or dormitory room. If staff notices that this diagram is missing they should inform the fire and non-fire emergency drill conductor.

The diagram should indicate the following:

1. A visual representation of the number of doors opening into the public corridor which must be passed to reach each exit stair.
2. Location of the fire alarm pull stations and exit stairs.
3. Procedures to be followed in the event of a fire alarm or smoke detector alarm.
4. A written description or visual representation of the procedures to be followed in the event of fire or smoke conditions.

Group R-1 occupancies should comply with the additional signage and any other emergency preparedness and planning requirements set forth in the rules.

Mixed Occupancy Buildings

The owners of a mixed-occupancy building, and each occupancy within the building that is required to have an emergency preparedness plan should comply with the following requirements:

- In lieu of a separate emergency preparedness plan for each occupancy, a combined emergency preparedness plan may be developed for the entire building or multiple occupancies within a single building, provided that it meets or exceeds the level of emergency preparedness required for each occupancy.
- Drill frequency is a function of the requirements of each occupancy, even if the occupancy has a combined emergency preparedness plan.
- Mixed occupancy buildings are encouraged to conduct combined drills when practical. Consult the Fire Code and the Rules of the Fire Department of the City of New York to determine when a combined drill may be required.

For example:

- In a mixed occupancy building, there is a group M occupancy which is required to drill two times a year and a group F occupancy which is required to drill twelve times a year. These two occupancies share a combined emergency preparedness plan. The group F occupancy will conduct drills once a month. These drills may be combined drills with the group M occupancy, but it is not required. The group M occupancy must conduct their drills twice a year, which may be combined with the drills required for the group F occupancy, or may be conducted independent of the group F occupancy.

- The owner responsible for preparing an emergency preparedness plan for one of the occupancies in a mixed-occupancy building should consult with the other owners in the building. The owners should compare evacuation and in-building relocation procedures, including use of stairwells and elevators and designation of in-building relocation areas and assembly areas.
- The owner of a mixed-occupancy building should arrange for a means of communication between their respective FEDCs and FEP staff, in the event of a fire or other emergency. Such communications may take place by telephone (other than a telephone requiring a coin to operate), text message, e-mail, walkie-talkie, or other approved means.

In case of a fire, the FEP staff in mixed occupancies should coordinate the evacuation, partial evacuation, in-building relocation and/or sheltering in place of the respective building occupants, and coordinate other matters in accordance with the emergency preparedness plan.

FEP staff members who become aware of a non-fire emergency shall promptly notify the FEP staff in any other occupancy that could be affected by the emergency, or who is situated in the building's entrance lobby and who would be first encountered by firefighters or other emergency personnel responding to the emergency.

5. Recordkeeping

Buildings and occupancies required to have an emergency preparedness plan should maintain a log book as described below.

Format - A bound log book with consecutively numbered pages, an approved electronic format, or other approved form of recordkeeping, shall be maintained at the premises for a period of 3 years from the last entry, and made available immediately upon request of any Fire department representative

Entries - Entries shall be made in the log book to document drills, education, staff training, plan review and amendment, plan implementation and/or such other information as the commissioner may require.

Log book entries should include the following content:

1. Name and C of F number of the person who conducted the drill
2. Date and time of the drill
3. Name and title of staff assisting with the drill
4. Number of occupants participating in the drill
5. Evaluation of effectiveness of the drill, including any delays and deficiencies
6. The time required to conduct an evacuation (if evacuation is part of the drill)

Any building, occupancy, or part thereof required to have an emergency preparedness plan, should be subject to periodic fire safety inspection by the Fire department. This inspection may include ensuring that the emergency preparedness plan has been both prepared and implemented according to the requirements outlined in the Fire Code and the Rules.

6. People who Require Assistance

6.1 Special Needs Occupants

In all buildings there may be employees, occupants, or visitors who have special needs during a drill or an emergency. Fire and non-fire emergency drill conductors must follow the procedures in the emergency preparedness plan for identifying in advance building occupants who require assistance to participate in the plan because of an infirmity or disability or other special need, and the approved procedures for providing such assistance. All procedures should be in compliance with the Americans with Disabilities Act.

It is important that anyone in the building who may have a special need during the drill or during an actual emergency informs their employer at the start of their employment or residency within a building so that they can be included in the list of people requiring assistance.

6.2 English as a Second Language (ESL) Occupants

FEDCs may have ESL (English as a second language) employees, building occupants or visitors in their building or occupancy. ESL occupants may have difficulty understanding what Public Address (PA) announcements mean and the proper actions to take when an alarm sounds.

Clarifying the announcements and drill procedures with ESL occupants during FEP staff training, education sessions and drills can help alleviate any confusion. For example, if there are a large portion of ESL occupants in the building, FEDCs can use the fire alarm system's voice communication system to make announcements in both English and other languages. In addition, depending on the occupancy, the FEDC may send staff to check all of the floors and stairwells in the building to ensure that everyone has evacuated during a drill (if evacuation is part of the drill). If participants in a drill or training session inform the FEDC that it is difficult for them to understand English, the FEDC may use a translator or provide other non-verbal cues and forms of written communication to ensure that the person understands. Resources will vary depending on the type of occupancy.

6.3 Reporting a Fire when Hearing Impaired or Unable to Speak

Upon discovering a fire, the first step that a person who is hearing impaired or unable to speak should take is to activate the fire alarm pull box, so that other building occupants will be aware that there is an emergency. If the person is outside of a building and needs to report a fire, he/she should follow the procedures below:

Using an Emergency Call box (if there is one available):

- Lift the red cover on the emergency call box that reads "Fire" and has a picture of a flame

- Press the button under the red "Fire" cover (some call boxes will not have a cover over the button)



- *If the person is hearing impaired, but able to speak:*
 - Wait four seconds after pressing the button to ensure that the operator has picked up, or place your hand over the grid until you feel the vibration of their voice
 - Inform the operator that you are hearing impaired
 - Speak into the call box and state what the emergency is and where the emergency is occurring (the address or cross streets)
 - Repeat the information to ensure the operator has received it
 - Stay at the call box until the Fire Department arrives
 - Direct the Fire Department towards the Fire emergency

- *If the person is hearing impaired and unable to speak:*
 - Wait four seconds after pressing the button to ensure that the operator has picked up, or place your hand over the grid until you feel the vibration of their voice
 - Tap the grid with your fingers in a “two tap with a pause” pattern as follows: “Tap, Tap, Pause, Tap, Tap, Pause, Tap, Tap, Pause”
 - Tap for at least 90 seconds, but preferably until help arrives
 - Stay at the call box until the Fire Department arrives
 - Direct the Fire Department towards the Fire emergency by pointing in the direction of the emergency

- *If the person can hear but is unable to speak:*
 - Wait until you hear the operator speak on the emergency call box
 - Tap the grid with your fingers in a “two tap with a pause” pattern as follows: “Tap, Tap, Pause, Tap, Tap, Pause, Tap, Tap, Pause”
 - Tap for at least 90 seconds, but preferably until help arrives
 - Stay at the call box until the Fire Department arrives
 - Direct the Fire Department towards the Fire emergency by pointing in the direction of the emergency

Using a Telephone:

- *If the person is hearing impaired, but can speak:*
 - Wait four seconds after calling 911 to ensure that the operator has picked up
 - Inform the operator that you are hearing impaired

- Speak into the phone receiver and state what the emergency is and where the emergency is occurring (the address or cross streets)
- Repeat the information to ensure the operator has received it
- Stay on the telephone line until the Fire Department arrives. The operator will use the open line to track the location of the call



- Direct the Fire Department towards the Fire emergency upon arrival.
- *If the person is hearing impaired and unable to speak:*
 - Wait four seconds after calling 911 to ensure that the operator has picked up
 - Tap the speaker with your fingers in a “two tap with a pause” pattern as follows: “Tap, Tap, Pause, Tap, Tap, Pause, Tap, Tap, Pause”
 - Tap for at least 90 seconds, but preferably until help arrives
 - Stay on the telephone line until the Fire Department arrives. The operator will use the open line to track the location of the call
 - Direct the Fire Department towards the Fire emergency by pointing in the direction of the emergency
- *If the person can hear but is unable to speak:*
 - Wait until you hear the operator pick up the telephone
 - Tap the speaker with your fingers in a “two tap with a pause” pattern as follows: “Tap, Tap, Pause, Tap, Tap, Pause, Tap, Tap, Pause”
 - Tap for at least 90 seconds, but preferably until help arrives
 - Stay on the telephone line until the Fire Department arrives. The operator will use the open line to track the location of the call
 - Direct the Fire Department towards the Fire emergency by pointing in the direction of the emergency

All 911 operators are trained to recognize what the tapping pattern means. For more information, please visit the FDNY website at www.nyc.gov/fdny.

7. Emergency Procedures

Any owner, occupant or other person who becomes aware of a fire or explosion or any other emergency should immediately report the emergency to the Fire department. No owner or other person shall issue any directive or take any action to prevent or delay the reporting of a fire or other emergency to the department.

A durable, legible sign setting forth the following information for reporting a fire or other emergency (including the text to be inserted based on the building's location) shall be posted in a conspicuous location in the lobby of the main front entrance of a Group A, B, E, F, I, M and R-1 building:

Fire alarm box at _____ (name of street) and _____ (name of street)

OR

To report a fire by telephone dial "911" or, depending upon the borough in which the property is located, insert one of the following telephone numbers:

Bronx properties	718-999-3333
Brooklyn properties	718-999-4444
Manhattan properties	212-999-2222
Queens properties	718-999-5555
Staten Island properties	718-999-6666

7.1 Fire Alarms

All employees must be trained in how to manually activate the fire alarm pull boxes. Generally, these pull boxes are installed at several locations on the premises and are usually located near the exits of a building. **Activating the pull station is the most effective way to notify the building occupants in case of a fire emergency.**

There are two types of manual fire alarm pull stations. They are called **single action** and **double action** stations.

- A. Single action stations:** Single action stations require only one step to activate the alarm. The cover on these alarm stations serves as a lever. An example of a single action station is shown below. This kind of alarm station is often found indoors, e.g., in office buildings. When the cover is pulled down, it allows a switch inside to close. This sends the alarm signal.





Activating a single action station

B. Double action stations: Double action stations require two steps in order to activate the alarm. The user must first break a glass, open a door or lift a cover. The user can then gain access to a switch or lever which must then be operated to initiate an alarm. To activate this type of alarm station the cover must be lifted before the lever is pulled. This kind of double action station is often found indoors. Another kind of double action break glass station requires someone to break a small pane of glass with a small metal mallet.



Double action stations



Activating a double action station

The FEDC and members of the FEP staff must know how to manually operate each alarm station on the premises. Once activated, the fire alarm system can not be re-set at the fire alarm manual pull station only. The alarm must be re-set at a main Fire Alarm Control Panel (FACP) after the pull station is reset to its normal condition. The alarm may be re-set by building personnel only after being instructed to do so by a Fire Department representative. Once activated, a key may be required to reset the manual pull station.

FEDCs should become familiar with the location of all fire protection devices, as well as interior and street fire alarm pull stations. FEDCs should be aware that in some buildings, Fire Alarm pull stations may exist that have a white stripe across them. The white stripe indicates that by activating that particular pull station, a signal will be sent to the Central Station Company. Although buildings constructed after 2008 may not have pull boxes with white stripes, it is still important that FEDCs are knowledgeable about which manual fire alarm pull stations send a signal to the Central Station Company and which pull stations do not. All fire alarm pull stations installed or relocated after April 1, 1984 should be installed so that the handle is approximately four feet from the floor and it is located within 5 feet of the exit doorway opening. Manual stations should never be blocked or obstructed.

7.2 Portable Fire Extinguishers

FEDCs should be familiar with the use of portable fire extinguishers. Portable fire extinguishers weighing 40 lbs. or less must be installed so that the top of the extinguisher is not more than 5 ft above the floor. Hand-held portable fire extinguishers weighing more than 40 lbs. must be installed so that the top of the extinguisher is not more than 3.5 feet above the floor. The clearance between the bottom of the extinguisher and the floor must not be less than 4 inches. In other words, **no fire extinguisher is allowed to be on the floor.**

Fire extinguishers must be located in conspicuous locations where they will be readily accessible and immediately available for use. These locations must be along normal paths of travel.

It is important to remember that portable fire extinguishers should only be used when there is an available means of egress that is clear of fire. Users must keep a clear and accessible means of egress at their back. This is important because if the fire intensifies or if the user is unable to extinguish the fire, it is imperative that there is still an unobstructed means of egress. Portable fire extinguishers are important in preventing a small fire from growing into a catastrophic fire; however, they are not intended to fight large or spreading fires. By the time the fire has spread, fire extinguishers, even if used properly, will not be adequate to extinguish the fire. Such fires should be extinguished by the building fire extinguishing systems or trained firefighters only. In the event that a fire extinguisher has been discharged, it must be fully recharged or replaced prior to being used again.

In case of any fire, 911 must be called. Fire extinguishers must be used in accordance with the instructions painted on the side of the extinguisher. They clearly describe how to use the extinguisher in case of an emergency. The Certificate of Fitness holder should be familiar with the use of portable fire extinguishers. When it comes to using a fire-extinguisher, remember the acronym **P.A.S.S.** to help make sure you use it properly. **P.A.S.S.** stands for **P**ull, **A**im, **S**queeze, **S**weep.

7.3 Different Types of Portable Fire Extinguishers

Table 7.1 Typical Causes of Fire

Building or Occupancy	Example of Building/ Occupancy	Typical Causes of Fire
Group A	Theater, Catering hall, Bar	Lighting, scenery, projectors, cooking appliances, smoking, electrical wiring
Group B	Office	Computer monitors, stacks of papers and cardboard boxes, wiring, microwave ovens, cigarettes, misused extension cords and multiple power strips
Group E	Dormitories, Academies & Schools	Extension cords, halogen lamps, microwaves, ovens, stoves, portable grills, candles, hot plates, portable heaters, halogen lamps, overloaded electrical outlets and power strips
Group F	Factories	Flammable liquids, timber pallets and packaging materials, and compressed gases
Group I-1	Rehabilitation Centers, Assisted living facilities	Patient care devices, cooking equipment, electrical products, compressed gases and flammable liquids
Group I-2	Hospitals, Nursing homes, Mental hospitals	Smoking, electronic office equipment, medical equipment such as oxygen tanks and radiological equipment, washers and dryers, heating equipment, trash or debris, and cooking equipment
Group M	Department Stores	Flammable & combustible materials, electrical malfunctions, open flames, sparks, hot surfaces, smoking, and unsafe storage of chemical products
Group R-1	Sorority and Fraternity Houses	Extension cords, microwaves, ovens, stoves, portable grills, candles and hot plates, portable heaters, halogen lamps, overloaded electrical outlets and power strips
Group R-2	Shelters	Cigarettes, electrical equipment, cooking appliances
Group S	Storage facilities, Warehouses and Storage rooms	Papers, hazardous materials, and chemicals

Fire extinguishers are classified by the type of fire that they will extinguish. Some fire extinguishers can only be used on certain types of fires, while other fire extinguishers are made to extinguish more than one type of fire. The portable fire extinguisher classification is indicated on the right side of the extinguisher. For more detailed information regarding the different portable fire extinguisher classifications and the types of fires they extinguish, reference the chart below.



COMBUSTIBLES



LIQUIDS

ELECTRICAL



EQUIPMENT
COMBUSTIBLE



METALS



A **Class A** fire extinguisher is used for ordinary combustibles, such as wood, paper, some plastics and textiles. This class of fire requires the heat-absorbing effects of water or the coating effects of certain dry chemicals. Extinguishers that are suitable for **Class A** fires should be identified by a triangle containing the letter "A." If in color, the triangle should be green.

A **Class B** fire extinguisher is used for flammable liquid and gas fires such as oil, gasoline, etc. These fire extinguishers deprive the fire of oxygen and interrupt the fire chain by inhibiting the release of combustible vapors. Extinguishers that are suitable for **Class B** fires should be identified by a square containing the letter "B." If in color, the square should be red.

A **Class C** fire extinguisher is used on fires that involve live electrical equipment which require the use of electrically nonconductive extinguishing agents. (Once the electrical equipment is de-energized, extinguishers for Class A or B fires may be used.) Extinguishers that are suitable for **Class C** fires should be identified by a circle containing the letter "C." If in color, the circle should be blue.

A **Class D** fire extinguisher is used on combustible metals such as magnesium, titanium, sodium, etc., which require an extinguishing medium that does not react with the burning metal. Extinguishers that are suitable for **Class D** fires should be identified by a five-point painted star containing the letter "D." If in color, the star should be yellow.

A **Class K** fire extinguisher is used on fires involving cooking media (fats, grease and oils) in commercial cooking such as restaurants. These fire extinguishers work on the principal of saponification. Saponification takes place when alkaline mixtures such as potassium acetate, potassium citrate or potassium carbonate are applied to burning cooking oil or fat. The alkaline mixture combined with the fatty acid creates a soapy foam on the surface which holds in the vapors and steam and extinguishes the fire. These extinguishers are identified by the letter **K**.

The most commonly sold portable fire extinguishers (PFEs) are labeled ABC extinguishers. Class ABC extinguishers are often the primary PFE in offices, hotels, theaters and classrooms. Class ABC extinguishers are dry chemical extinguishers that can be used to extinguish regular combustible fires, flammable liquid fires, and fires involving electrical equipment. ABC extinguishers are usually red in color and range in size from 5-20 lbs. The pictures below show an example of a Class ABC portable fire extinguisher.



Class A portable fire extinguishers are available but are not as prevalent as Class ABC extinguishers. Class A PFEs are also known as Air Pressurized Water (APW) fire extinguishers. Water is an extinguishing agent for regular combustibles. These extinguishers are usually silver in color, approximately 3 feet in height and weigh approximately 25 lbs. Class A portable fire extinguishers are useful in buildings and occupancies that primarily contain Type A combustible materials. These PFEs should ONLY be used on ordinary combustible fires. The picture to the right shows an example of a typical Class A portable fire extinguisher.



Portable fire extinguishers with a classification of “BC” are used to extinguish flammable liquid fires and electrical equipment fires. Portable fire extinguishers with a classification of just “B” or a classification of just “C” do not exist. “BC” portable fire extinguishers are red in color and range in size from 5-100 lbs. or larger. Class BC portable fire extinguishers are filled with sodium bicarbonate or potassium bicarbonate. An example of a BC portable fire extinguisher is shown below:



As mentioned above, a portable fire extinguisher with just a “C” classification does not exist. The "C" classification indicates ONLY that the extinguishing agent is a non conductor and is safe to use on live electrical fires. "C" fires will have either an "A" component, such as ordinary combustibles around the electrical item, or a "B" component such as an oil filled transformer or some electrical device involving flammable liquids. This is the reason "C" classifications are only attached to either a "B" or "AB" fire extinguisher. This classification specifies the fire extinguisher that is most appropriate for extinguishing the fire.

Portable fire extinguishers with a “D” classification are uncommon. Class D fire extinguishers contain a sodium chloride based dry powder extinguishing agent, but most PFEs labeled “Class D” have components that are geared towards a specific metal. Class D portable fire extinguishers are used to extinguish combustible metal fires.

Class K portable fire extinguishers are found in restaurant kitchens and are used to extinguish combustible cooking fluids such as oils and fats. There are different extinguishing agents found in fire extinguishers labeled Class K. Some of these extinguishing agents are dry and some are wet. Potassium bicarbonate is used in some dry chemical fire extinguishers and a chemical mist is used in some wet

chemical fire extinguishers. The extinguishing agents in a Class K fire extinguisher are sometimes electrically conductive and should only be used AFTER the power has been turned off in the electrical appliance.

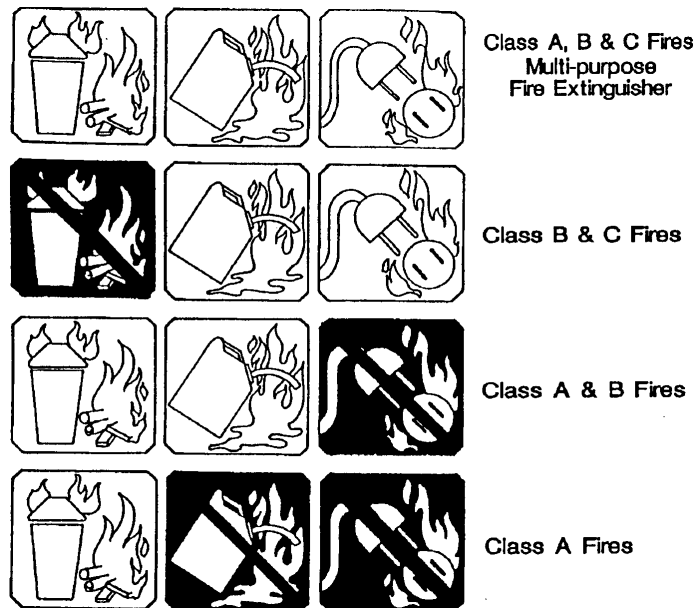
An example of a Class K fire extinguisher is shown in the pictures below:



The chart below summarizes the most common causes of fire in the buildings and occupancies discussed in the study material.

7.4 Labeling

Portable fire extinguishers are labeled so users can quickly identify the classes of fire on which the extinguisher will be effective. The marking system combines pictures of both recommended and unacceptable extinguisher types on a single identification label. The following is an example of typical labels.



7.6 Portable Fire Extinguisher Inspections

MONTHLY

The portable fire extinguishers are required to be checked monthly. The owner of the business is responsible to select a person to do a monthly inspection. This monthly inspection is called a "quick check".

The **QUICK CHECK** should check if:

- (1) the fire extinguisher is fully charged;
- (2) it is in its designated place;
- (3) it has not been actuated or tampered with;
- (4) there is no obvious or physical damage or condition to prevent its operation.

The information of the monthly inspection record must include the date of the inspection, the name/initials of the person who did the inspection. This monthly quick check record must be kept on the back of the PFE tag or by an approved electronic method that provides a permanent record.

ANNUALLY

At least annually all Portable Fire Extinguishers must be checked by a W-96 Certificate of Fitness holder from FDNY approved company. After each annual inspection W-96 COF holder will replace the PFE tag. The information of the annual inspection record must be indicated on the new PFE tag.

8. Fire Protection Systems Impairment

Smoke detector cleaning and testing may be performed by an employee of the building owner. That individual shall possess a proper Certificate of Fitness for smoke detector cleaning and testing. He/she should possess the tools, instruments or other equipment necessary to perform such services in accordance with the Fire Code and the Fire Rules. A record of all tests, inspections, and other operations of the fire alarm system must be noted in the log book.

The fire alarm control panel installed in any occupancy other than group “B” and “R1” must be visually inspected **weekly** in order to determine whether any impairment exists in the building. It is recommended that these inspections be done on a more frequent basis. Fire Command centers in group “B” or “R1” occupancies (typically high rise office and/or hotels) should be inspected **daily**.

If an impairment is found in any occupancy, fire guard coverage may be required. A record of all tests, inspections, and other operations of the fire alarm system must be noted in the log book. The Certificate of Fitness holder is responsible for this log. Defective equipment must be replaced immediately by an authorized service technician.

All smoke detectors connected to a defined fire alarm system shall be cleaned not less than once every six (6) months, except for analog (intelligent) smoke detectors, which shall be cleaned no later than one (1) week from receipt of an indication of the need for cleaning. (FR 907.0, 4(1)) This procedure ensures that the detector is kept in good working condition. Smoke detectors must be cleaned by an S-78, F-78, S-97, T-97 or an S-98 Certificate of Fitness holder. The FDNY provides a list of approved Smoke Detector maintenance companies on the FDNY website below. This list is updated monthly:

www.nyc.gov/html/fdny/pdf/fire_prevention/instruct_smoke_detectors.pdf

Smoke detectors are extremely sensitive and easily damaged. They should never be painted or altered in any way. All testing shall be consistent with manufacturer specifications.

8.1 Out of Service Situations and Impairment

The impairment coordinator is the person responsible for ensuring that proper notification and safety precautions are taken when a fire protection system is out of service. The owner/managing agent/tenant of the building is required to designate an impairment coordinator for the building/entity. It is important for the impairment coordinator to take immediate steps to notify the FDNY in the event of an out-of-service fire protection system.

The owner or an owner’s representative shall be notified when a fire protection system or part of the system is impaired. System defects and malfunctions shall be corrected. If a defect or malfunction is not corrected at the conclusion of a system inspection, test, or maintenance, the system owner or the owner’s representative shall be informed of the impairment immediately. The owner shall also be notified when an impairment period is completed or discontinued.

Out of service system: A fire protection system that is not fully functional; or whose operation is impaired or is otherwise not in good working order.

System off-line entries: Entries should include the date and time the alarm system was taken off-line, the reason for such action, the name and operator number of the person notified at the FDNY approved central station (or other evidence of notification satisfactory to the Department), and the date and time the system was restored to service.

Out of service signage: C of F holders shall notify their supervisor and put a placard (tag) over the defective device, indicating that it is out of service.

Any impairment to a fire protection or related system poses safety risks to a building and its occupants. The impairment coordinator shall be responsible for ensuring appropriate posting of a fire guard detail, notifications to tenants, and posting out of service signage when appropriate.

9. Safety Requirements

Several types of safety signs may be posted at various locations inside the building. The signs are designed to ensure the safety of occupants. For example these signs may indicate:

- The general fire safety procedures to be followed during a fire emergency
- The location of fire extinguishers and emergency exits
- How to use the fire extinguishers and related fire fighting equipment
- How to sound the fire alarm in case of an emergency
- That the elevators must not be used in case of a fire unless otherwise instructed by the Fire Department
- The floor numbers

The FEDC should be familiar with the specific requirements for fire safety signs in his/her building. He/she should also ensure that exit signs posted above doors are always illuminated. Examples of some of these signs are shown on the next page.

Typical Safety Signs

Exit Signs



Special Exit Signs



Extinguisher Sign



Elevator Warning Sign



No-smoking Sign



Sprinkler Sign



Stair Signs



(located by outside of door)

(located by door inside of well)

9.1 Medical Emergency

If Fire and Non-Fire Emergency drill conductors become aware of an injury or other medical emergency, they should call 911 and provide as much of the following information as possible. The fire and non-fire emergency drill conductor is NOT required to have specific medical knowledge or training, however when communicating with medical responders the ability to provide this information is helpful.

- Caller location and the location of the victim(s) (if different from your location), including the business name, street address, cross street, floor and room number (if applicable)
- Caller name and telephone number for a return call
- The number of victim(s)
- The victim(s)'s chief complaint or present condition (e.g. bleeding, breathing erratically, conscious/unconscious, etc)
- Any hazards involved

The caller should follow the exact instructions of the 911 operator and emergency personnel.

- Fire and non-fire emergency drill conductors should alert trained employees who are CPR qualified, as noted in the emergency preparedness plan. Only trained employees should provide first aid assistance. If there are no trained employees on the premises, designate a responsible person to stay with the victim(s).
- FEDCs should arrange for an elevator to be placed on stand by.
- The victim should not be moved unless the victim(s)'s location is unsafe.
- The FEDC should control access to the scene.
- The FEDC should arrange a designated person to meet the ambulance at the nearest entrance or emergency access point; direct them to victim(s)

9.2 Bomb or other Explosion Threats

If a person receives a suspicious package and is unable to verify its contents, they should follow the emergency reporting protocol below:

- Do not touch/move/open the article
- Call 911 and provide the following information:
 - Your location and the location of the suspicious package (if different from your location), including the business name, street address, cross street, floor and room number (if applicable)
 - Name and telephone number for return call

9.3 Chemical Incident or Release

- In case of a major spill, the Fire Department must be notified by calling 911 immediately. After calling 911, the caller's supervisor should be notified.
- The caller should wait for and follow instructions from the first respondent.

10. Lithium-Ion Battery Safety

Lithium-ion safety

Lithium-ion batteries are rechargeable batteries found in electric bikes, scooters, cars, laptops, tablets, phones, and many other common household devices.


Lithium-ion battery fires have caused deaths, serious injuries, and devastating damage to property around the city. It's important to follow rules for safe storage, charging, and disposal for these types of batteries.

If you own a lithium-ion powered device or plan to buy one, the FDNY has important safety tips that you should follow. These tips apply to all devices powered by lithium-ion batteries, including phones, tablets, laptops, e-cigarettes, toys, high-tech luggage, and even robotic vacuum cleaners.

Immediately stop using or charging battery and call 911 if you notice:

- **Fire or Smoke**
- **Overheating**
- **Change in color or shape**
- **Odd noises**
- **Leaking**
- **Strange smell**

ALWAYS:

- purchase and use devices certified by a Nationally Recognized Testing Laboratory (NRTL). 
- follow the manufacturer's instructions for:
 - charging and storage.
 - correct battery, cord, and power adapter
- **keep exit path clear at all times.**
- plug directly into a wall electrical outlet for charging.
- keep batteries and devices at room temperature.
- store and/or charge batteries away from anything flammable.
- keep away from heat sources.
- bring batteries to a **NYC Battery Recycling Center**. Visit nyc.gov/batteries for more information.

NEVER:

- use aftermarket batteries or chargers.
- use damaged or altered batteries
- plug into a power strip or overload an outlet.
- overcharge or leave battery charging overnight.
- charge a battery or device under your pillow, on your bed, or near a couch.
- leave e-bikes or e-scooters unattended while charging.
- block your primary way in or out of a room/space with e-bikes, e-scooters, wheelchairs, etc.
- place batteries in Trash or Recycling bin. **It is ILLEGAL.** Visit nyc.gov/batteries for disposal locations and information.

**In the event of a Fire,
Leave and CLOSE the door.
Call 911 once you are
in a safe location.**



Charging Lithium Ion

Lithium-ion batteries do not have to be fully charged; partial charge is the most suitable.

When **charging more than five (5)** personal mobility devices or their removable batteries, it must be in a **dedicated room with ventilation** and a self-closing door.

For a total battery capacity of 20 kilowatt-hours (kWh), a 2-foot separation between charging batteries is required. For a total battery capacity up to 50 kWh, a 3-foot separation is needed.

Chargers must only be used with a compatible battery pack. The original equipment manufacturer (OEM) charger interplays with the battery pack using the battery management system (BMS). The wrong battery/charger combination may not work safely. For example, the 100% cutoff to prevent overcharging, which damages batteries, may not work which can easily create hazardous conditions such as fires, explosions and/or injuries.

Always check with the manufacturer or retailer of the personal mobility device, an authorized repair shop or a testing laboratory such as Underwrites Laboratories (UL) to see if replacement is recommended or listed and safe for use with that device. Using unauthorized parts, including batteries and/or chargers, may cause damage, fire and possibly void your warranty.

Extinguishing Lithium-ion

Water may not prevent a battery from burning and spreading. Battery cells are known to explode and quickly spread to another battery. It can spread to another devices.



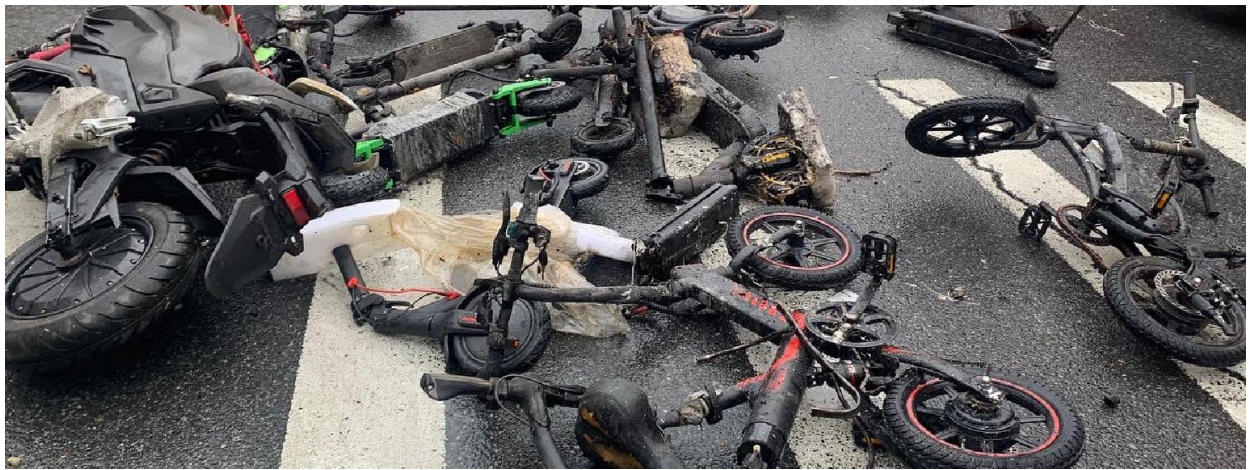
Fire Extinguishers
do not work
on lithium-ion batteries fires.

Unexpected Re-ignition.

Reignition is common. Lithium-Ion Batteries are known to unexpectedly re-ignite (without warning) minutes, hours and even days after all visible fire has been put out.

Lithium-ion batteries can enter an uncontrollable, self-heating state. This can result in the release of gas, cause fire and possible explosion.

These batteries may continue to generate heat even when there is no visible sign of fire. Once heat reaches a certain level fire may reignite on the battery and surrounding area.



Appendix A. Fire Emergency Scenario

The following is an example of a scenario that a Fire and Non-Fire Emergency Drill Conductor could use for educational purposes during a fire drill. Evacuation is **not** required during the drill; however the FEDC could choose to verbally inform FEP staff and building occupants of the procedure they would follow if this scenario was actually taking place.

Scenario: *A staff member or building occupant sees smoke or fire on the third floor*

The proper procedure that the person who discovers the fire should follow is:

- Call 911 immediately.
- Move away from the fire. If possible, confine the fire to its place of origin by closing any doors behind you and windows as you leave the area.
- Immediately activate the closest manual fire alarm pull box. Pulling the fire alarm box will set an alarm off in the building and notify the building occupants that there is an emergency. Depending upon the type of fire alarm system, this may or may not also send a signal to the Central Station Company, who would then notify the Fire Department.
- Contact the person designated in the Emergency Preparedness Plan and let him/her know as much information about the fire or smoke condition as possible.
- If allowable obstructions to egress (such as turnstiles that require ID card entry) haven't opened they should be opened manually if evacuation is deemed necessary.
- The means of communication established in the emergency preparedness plan to communicate a fire or emergency on the premises should be initiated immediately to inform building occupants what action they should take, if any.
- If possible and safety permits, the person designated in the emergency preparedness plan should send their staff to search the evacuated floors to ensure they are empty of occupants if evacuation was deemed necessary.
- Determine if all occupants have been successfully evacuated and accounted for at the assembly point if evacuation was deemed necessary.
- Ensure that the person designated in the emergency preparedness plan is available to meet emergency personnel upon the arrival of the Fire Department. This person must be knowledgeable about the conditions that are currently occurring in the building.

Appendix B. Medical Emergency Scenario

The following is an example of a scenario that a FEDC could use during a non-fire emergency drill. Practicing the scenario outlined below is **not** required during the drill; however the FEDC could choose to verbally inform FEP staff and building occupants of the procedure they would follow if this scenario was actually taking place. *The actual content can vary depending on the building or occupancy.*

Day and Time: Friday, at 8:00 PM

Location: Outdoor patio at a popular restaurant

Weather: Extreme heat, 90 degrees Fahrenheit with high humidity

Scenario:

- *A birthday party that started at 7:30 PM is seated outdoors on the patio of a restaurant*
- *The birthday party attendees have been drinking alcohol since their arrival, and the humidity on the outdoor patio is extremely high.*
- *A member of the birthday party, a middle aged woman, has collapsed to the ground and appears to be unconscious and unresponsive.*
- *Another member of the party yells for help and begins telling those around him that the woman has a heart condition.*

FEDCs should practice the appropriate response to this Medical Emergency with their staff and any other relevant parties. The proper response is as follows:

- Call 911
 - State that a woman fell and appears to be unconscious and unresponsive
 - State the address, cross street and name of the restaurant
 - Tell the operator the telephone number of the restaurant
 - Inform the operator that the woman may have a heart condition
 - Inform the operator that the woman has been consuming alcohol
- Follow the exact instructions of the 911 operator
- Do not move the woman
- Control access to the patio area by clearing the area if possible, and preventing any unnecessary people from joining the scene
- Designate an employee to meet the ambulance and other emergency responders at the front of the restaurant and direct them to the outdoor patio

Appendix C. New York State Education Law

Section §807 Fire and emergency drills

1. It shall be the duty of the principal or other person in charge of every public or private school or educational institution within the state, other than colleges or universities, to instruct and train the pupils by means of drills, so that they may in a sudden emergency be able to respond appropriately in the shortest possible time and without confusion or panic. Such drills shall be held at least twelve times in each school year, eight of which required drills shall be held between September first and December thirty-first of each such year. Eight of all such drills shall be evacuation drills, four of which shall be through use of the fire escapes on buildings where fire escapes are provided or through the use of identified secondary means of egress. Four of all such required drills shall be lock-down drills. Drills shall be conducted at different times of the school day. Pupils shall be instructed in the procedure to be followed in the event that a fire occurs during the lunch period or assembly, provided however, that such additional instruction may be waived where a drill is held during the regular school lunch period or assembly. Four additional drills shall be held in each school year during the hours after sunset and before sunrise in school buildings in which students are provided with sleeping accommodations. At least two additional drills shall be held during summer school in buildings where summer school is conducted, and one of such drills shall be held during the first week of summer school.

1a. In the case of after-school programs, events or performances which are conducted within a school building and which include persons who do not regularly attend classes in such school building, the principal or other person in charge of the building shall require the teacher or person in charge of such after-school program, event or performance to notify persons in attendance at the beginning of each such program, event or performance, of the procedures to be followed in the event of an emergency so that they may be able to respond in a timely, orderly manner.

2. It shall be the duty of the board of education or school board or other body having control of the schools in any district or city to cause a copy of this section to be printed in the manual or handbook prepared for the guidance of teachers, where such manual or handbook is in use or may hereafter come into use.

3. It shall be the duty of the person in charge of every public or private college or university within the state, to instruct and train the students by means of drills, so that they may in a sudden emergency be able to leave the college or university building in the shortest possible time and without confusion or panic. Such drills shall be held at least three times in each year, one of which required drills shall be held between September first and December first of each such year. In buildings where summer sessions are conducted, one of such required drills shall be held during the first week of such summer session. At least one of such required drills shall be through use of the fire escapes on buildings where fire escapes are provided. At least one additional drill shall be held in each year during the hours after sunset and before sunrise in college or university buildings in which students are provided with sleeping accommodations.

4. Neglect by any principal or other person in charge of any public or private school or educational institution to comply with the provisions of this section shall be a misdemeanor punishable at the discretion of the court by a fine not exceeding fifty dollars; such fine to be paid to the pension fund of the local fire department where there is such a fund.

Appendix D. New York State Labor Law 279

§279 Fire alarm signal systems and fire drills.

1. Fire alarm signal systems. Except as may otherwise be provided by the board in its rules, every factory building over two stories in height in which more than twenty-five persons are employed above the ground floor shall be equipped by the owner thereof with a fire alarm signal system having a sufficient number of signals clearly audible to all occupants of the building, and so arranged as to permit the sounding of all the alarms within the building whenever the alarm is sounded in any portion thereof. Such system shall be maintained in good working order and no person shall tamper with same or render ineffective any portion thereof except to repair it. A person discovering a fire shall cause an alarm to be sounded immediately. The board of standards and appeals in the city of New York and elsewhere the board may make rules and regulations relating to the installation of fire alarm signals and prescribing the number, character and location of the signals and the method and character of the installation including that of all appliances in connection therewith.

2. Fire drills. Except as may otherwise be provided by the board in its rules, in every factory building over two stories in height in which more than twenty-five persons are employed above the ground floor, a fire drill shall be conducted at least once a month in which all of the occupants of the building shall participate simultaneously and which shall conduct all such occupants to a place of safety. In New York City the fire commissioner and elsewhere the board shall make rules, regulations and special orders necessary or suitable to each situation and to secure the personal co-operation of all the tenants of the building in a fire drill of all the occupants thereof. Such rules, regulations and orders may require the posting of the same or an abstract thereof and may prescribe upon whom shall rest the duty of carrying them out.

3. Exceptions. Subdivisions one and two of this section shall not apply to a building in which every square foot of the floor area on all stories is protected with an automatic sprinkler system having two adequate sources of water supply and approved by the public authorities having jurisdiction thereof and in which also the maximum number of occupants of any one floor does not exceed by more than fifty per centum the capacity of the exits, as determined by subdivisions one, two, three and four of section two hundred and seventy-eight. If the commissioner after investigation determines that the spirit of this chapter is observed and public safety secured he may permit in place of the automatic sprinkler system before specified an automatic sprinkler system having one adequate source of water supply and approved by the public authorities having jurisdiction thereof.

4. The provisions of this section shall be enforced in the city of New York by the fire commissioner of said city and elsewhere by the commissioner.

Appendix E. F-07/W-07 Reference Material

THE INFORMATION IN APPENDIX E. WILL BE PROVIDED TO YOU DURING THE TEST

FEP STAFF TRAINING

Occupancy	Examples	Initial FEP Staff Training	Refresher FEP Staff Training
Group A	Theaters, restaurants and catering halls	1 hour	1 hour quarterly
Group B colleges and universities	Colleges and universities	1 hour	1 hour annually
Group B office	Office requiring a Fire Safety Director	Refer to Fire Code Table 406.2(1) and Table 406.2(2)	Refer to Fire Code Table 406.2(1) and Table 406.2(2)
Group B office	All others	1 hour	1 hour annually
Group E educational	Day care facilities	1 hour	1 hour annually
Group F	Factories	1 hour	1 hour annually
Group I-1	Rehabilitation centers, assisted living facilities	30 minutes	30 minutes every 2 months
Group I-2	Hospitals, nursing homes, mental hospitals	As long as necessary to familiarize FEP staff members with their duties.	Monthly drills distributed as follows: [see note a] Day shift: 3 drills per year Evening shift: 6 drills per year Night shift: 3 drills per year
Group M	Department stores	1 hour	1 hour annually
Group R-1	Dormitories, homeless shelters, hotels and sorority and fraternity houses	1 hour	1 hour quarterly on each shift
Group S	Storage facilities such as warehouses and storage rooms	1 hour	1 hour annually

Notes:

- a. *In Group I-2 occupancies, staff training may be conducted throughout the entire occupancy or in specific areas of the occupancy, but training sessions must be conducted in each and every area of the occupancy at least once over the course of 1 year.*

EMERGENCY DRILLS

Occupancy Group	Example	Who must participate?	Drill Frequency
Group A [See note a]	Theaters, restaurants, catering halls	Regular building occupants only (Participation of patrons and guests not required)	Semi-annually [see note b]
Group B colleges and universities	Colleges and universities	All building occupants	In accordance with NYS Education Law
Group B office	Office requiring a Fire Safety Director	All building occupants	Refer to Fire Code Table 405.2 and Section 405.3
Group B office	All others	All building occupants	Quarterly for the first two years after the issuance of the certificate of occupancy, and semi-annually after that [see note b]
Group E day care facilities	Day care facilities	All building occupants	Monthly
Group E educational	Schools and educational facilities	All building occupants	In accordance with NYS Education Law
Group F	Factories	All building occupants	Monthly
Group I-1	Rehabilitation centers, assisted living facilities	All building occupants	Bi-monthly [See notes c and d]
Group I-2	Hospitals, nursing homes, mental hospitals	Regular building occupants only (Participation of patients and guests not required)	Semi-annually [see note b]
Group M	Department stores	Regular building occupants only (Participation of patrons and guests not required)	Semi-annually [see note b]
Group R-1 dormitories and sorority and fraternity houses	Dormitories and sorority and fraternity houses	All building occupants	In accordance with NYS Education Law
Group R-1 homeless shelters	Homeless shelters	All building occupants	Monthly on each shift
Group R-1 hotels	Hotels	Regular building occupants only (Participation of patrons and guests not required)	Quarterly on each shift
Group S [See note b]	Storage facilities such as warehouses and storage rooms	Regular building occupants only (Participation of patrons and guests not required)	Semi-annually [see note b]

Notes:

- a. *Recommended by FDNY, but not required*
- b. *Semi-annually is defined as "twice a year," or more specifically, every six months*
- c. *In the first year of operation of an I-1 building or occupancy, drills shall be conducted monthly*
- d. *Bi-monthly is defined as "once every other month." For example, if a drill is conducted in January, another should be conducted in March of the same year*