

FIRE DEPARTMENT • CITY OF NEW YORK



**CONSOLIDATED STUDY MATERIAL FOR THE
CERTIFICATE OF FITNESS EXAMINATION FOR
INDOOR PLACE OF ASSEMBLY SAFETY PERSONNEL (F-03)
TEMPORARY PLACE OF ASSEMBLY SAFETY PERSONNEL
(CITYWIDE)(F-04)**

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.

The F-03 C of F test covers the entire booklet, and the F-04 C of F test covers most of this booklet except “section 2- special fire safety precautions for theaters”.

Note: The F-03 and F-04 were previously the F-94 Certificate of Fitness: fireguard for places of public assembly and fireguard for film studios.

TABLE OF CONTENT

EXAM SPECIFIC INFORMATION FOR F-03/F-04 CERTIFICATE OF FITNESS..... I

STUDY MATERIAL AND TEST DESCRIPTION..... IV

 INTRODUCTION..... 1

Definition..... 4

PART I. INDOOR PLACE OF ASSEMBLY SAFETY PERSONNEL..... 15

1. THE DUTIES OF PLACE OF ASSEMBLY SAFETY PERSONNEL..... 15

 1.1 Fire safety and evacuation plan..... 15

 1.2 Pre-event visual check..... 16

 1.3 During the event..... 19

2. SPECIAL FIRE SAFETY PRECAUTIONS FOR THEATERS 21

 2.1 Daily visual checks..... 21

 2.2 During the performance..... 22

 2.3 Regular visual checks. 23

PART II. TEMPORARY PLACE OF ASSEMBLY SAFETY PERSONNEL. 24

3. THE DUTIES OF TEMPORARY PLACE OF ASSEMBLY SAFETY PERSONNEL..... 24

 3.1 Orientation..... 24

 3.2 Pre-events visual checks..... 25

 3.3 Prohibitions..... 26

 3.4 During the event..... 27

PART III. FIRE PROTECTION SYSTEM, EMERGENCY PROCEDURES AND FIRE EXTINGUISHERS..... 29

4. FIRE PROTECTION SYSTEM 29

 4.1 Manual or pull station devices 29

 4.2 Safety requirements..... 30

 4.3 Sprinkler system..... 32

 4.4 Standpipe system..... 32

 4.5 Fire alarm system 32

5. EMERGENCY PROCEDURES..... 34

 5.1 General emergency procedures..... 34

 5.2 Fire emergency..... 34

 5.3 Medical emergency 35

5.4	Bomb or other explosion threats.....	36
5.5	Chemical incident or release	36
5.6	Active shooter incidents.....	36
6.	PORTABLE FIRE EXTINGUISHERS.....	42
6.1	Typical Fire Extinguishers.....	45
6.2	Portable Fire Extinguisher Inspections	46
6.3	Portable Fire Extinguisher (PFE) Tags.....	47
7.	LITHIUM-ION BATTERY SAFETY.....	49

EXAM SPECIFIC INFORMATION FOR F-03/F-04 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:

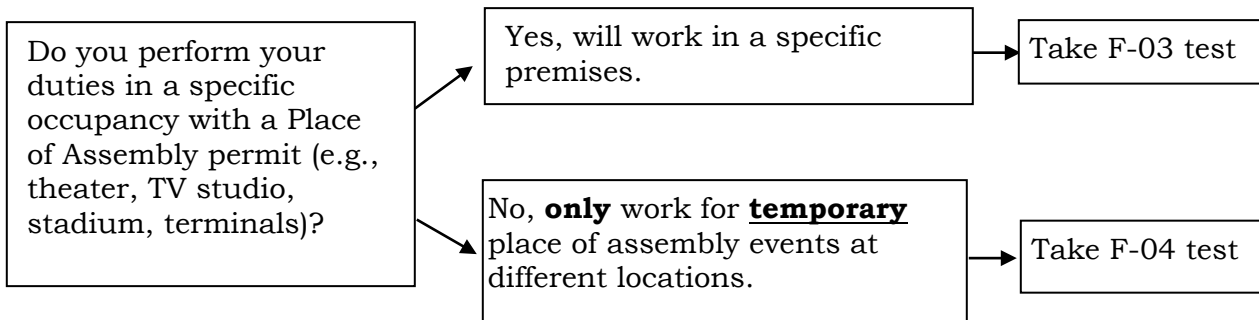
Review the General Notice of Exam:

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

Special requirements for the: F-03/F-04 Certificate of Fitness:

- **F-03 C of F is a premises-related certification**, and it is designed for the occupancies with Place of Assembly Certificate of Operation (PA). The F-03 C of F holders are responsible for maintaining fire safety in **any approved place of assembly (PA) or temporary place of assembly (TPA) activities held in the premises.**
- **F-04 Certificate of Fitness holders** are responsible for assisting in maintaining fire safety in any **TEMPORARY** place of assembly event with a TPA permit.

For applicants who want to take the place of assembly C of F tests:



- The applicants who pass the **F-03 Certificate of Fitness** exam are allowed to pay the additional \$25 fee to **obtain the F-04 Certificate of Fitness without taking the F-04 exam.**

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-03** exam will consist of **25** multiple-choice questions. The **F-04** exam will consist of **20** multiple-choice questions. All exams administered on a "touch screen" computer monitor. All tests are time-limit exams. Based on the amount of the questions, you will have 38 minutes to complete F-03 exams; you will have 30 minutes to complete F-04 exams.

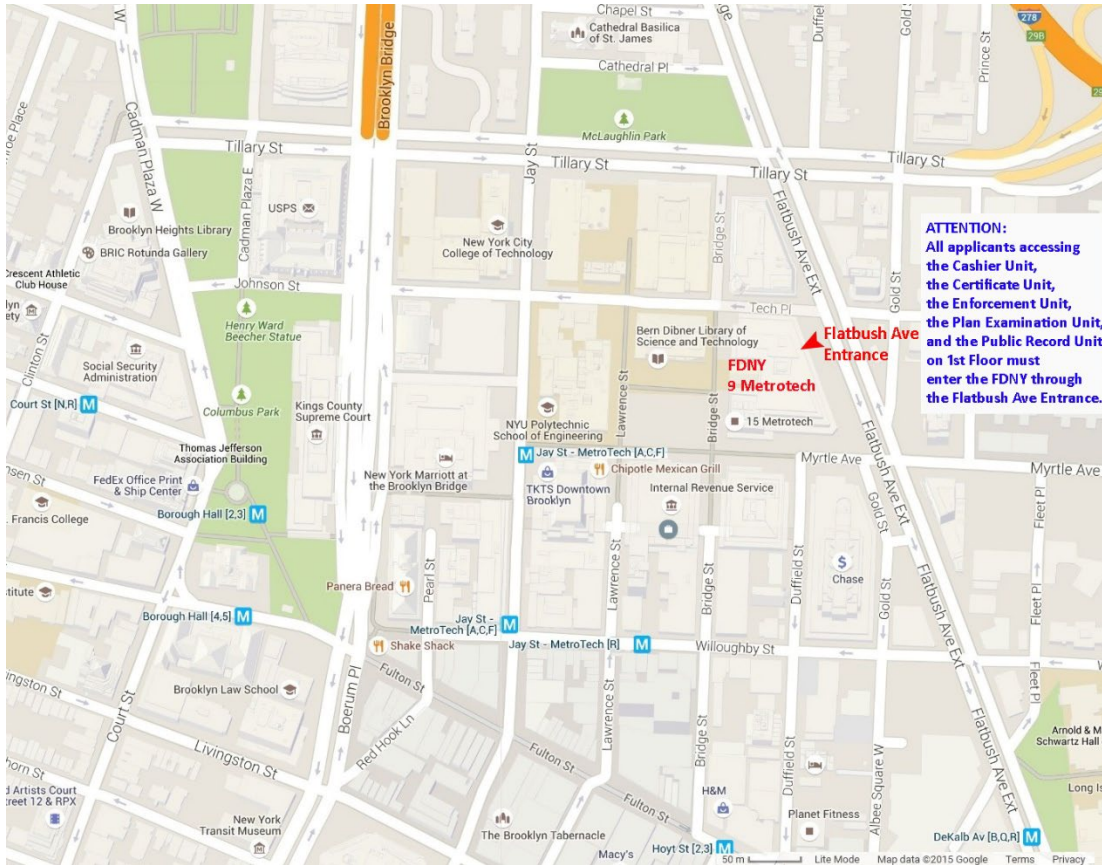
A passing score of at least 70% is required in order to secure a Certificate of Fitness.

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-f04-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).



ATTENTION:
All applicants accessing the Cashier Unit, the Certificate Unit, the Enforcement Unit, the Plan Examination Unit, and the Public Record Unit on 1st Floor must enter the FDNY through the Flatbush Ave Entrance.

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-03/F-04 COF: None

The FDNY strongly recommends the F-03/F-04 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.

STUDY MATERIAL AND TEST DESCRIPTION

About the Study Material

This study material will help you prepare for the examination for the Certificate of Fitness for place of assembly safety personnel. The study material includes information taken from the 2022 New York City Fire Code. This study material consists of 3 parts. The exam covers the entire booklet and any tables.

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.

It is critical that you read and understand this booklet to help increase your chance of passing this exam. The study material does not contain all of the information you need to know to work as a safety personnel. It is your responsibility to become familiar with all applicable rules and regulations of the City of New York, even if they are not covered in this booklet. You need to be familiar with the *Fire Code Section 403, 404, 906 and the Fire Rule Section 403-01, 403-02 and 404-01* which regulate the duties of safety personnel for managing the occupants in public gathering events.

The F-03 C of F test covers the entire booklet, and the F-04 C of F test covers most of this booklet except “section 2- special fire safety precautions for theaters”.

About the Test

All questions on the Certificate of Fitness examination are of the multiple-choice type with four alternative answers to each question. There are **25 questions** in the F-03 test and **20 questions** in the F-04 test. 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. A score of 70% is required on the examination in order to qualify for the Certificate of Fitness. Read each question carefully before choosing your answer. There is no penalty for guessing.

SAMPLE QUESTIONS

1. 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.

2. 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.

3. 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 cannot 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.

INTRODUCTION

This study material outlines the policies about individuals that are responsible for maintaining fire safety in indoor and outdoor places of assembly and public gathering events. The name of the Certificate of Fitness that will be issued by the Fire Department to those applicants that pass the exam is “place of assembly safety personnel”. In the past, the Fire Department has commonly referred to these type individuals as “fire guards”. The title of the Certificate of Fitness has changed to “place of assembly safety personnel” from fire guard because it more accurately represents the duties and responsibilities of such individuals.

Place of assembly safety personnel are needed in certain indoor and outdoor places of assembly and public gathering places. Their main duties are to “assist the occupants” in the event of a fire or other emergency. Making sure that the exits are unobstructed, immediately accessible, and properly identified are the first steps toward achieving safety in a place of assembly. The main goal is moving the occupants away from the hazard. Occupants must know not only where exits are, but also when and how to use them. Most occupants of places of assembly are likely to exit the same way they entered the building, whether or not it is the nearest or safest exit. The role of fire safety personnel is to help direct occupants to the nearest and safest exit.

Most assembly occupancies are required to have a fire safety and evacuation plan that provides for the safety of building occupants in the event of fire or other emergencies. The plan must consider the following information:

- number of building occupants.
- the type, location and arrangement of building exits.
- the fire and its effects on the people and the building.
- the number, training and capability of staff to direct or perform fire evacuation or initial fire-fighting duties.

The plan, combined with effective practice, increases the desired life safety outcome. One concern in an assembly occupancy is the occupant’s lack of familiarity with the building design. Also, lighting conditions in assembly spaces may interfere with the occupants’ ability to determine the path of egress travel. In most places of assembly occupancies, occupants should be directed to the nearest exit. The types of public assembly occupancies required to have place of assembly safety personnel, the number of persons required, and duties will be in the fire safety and evacuation plan.

Requirements

I. When and where are the place of assembly safety personnel required?

The FDNY may require at least one place of assembly safety personnel at the premises where the Certificate of Occupancy indicates that 75 or more people will gather indoors or 200 or more outdoors. Some of the types of places of assembly that may require safety personnel include, but are not limited to:

- Cabarets
- Dance halls
- Indoor skating rinks
- Bowling alleys
- Museums
- Bingo halls
- Movie theaters
- Television/radio studios admitting an audience
- Sports arenas
- Circuses
- Performing art theaters (live)
- Stadiums
- Passenger terminals

Or

Any event that needs a temporary place of assembly permit (TPA). For example, festivals, outdoor concerts, or other similar outdoor public gatherings.

II. How many place of assembly safety personnel will be required?

The fire safety and evacuation plan for your facility will specify when and how many may be required. For the temporary place of assembly situations, the minimum number of safety personnel will be indicated on the TPA permit.

The safety personnel should be present during the public gathering event. For TPA events, the safety personnel are required to arrive at the premises at least 1 hour prior to the events and remain until all audience members leave. Fire Department personnel may be on scene to provide additional direction on the number of required place of assembly safety personnel.

The Certificate of Fitness holder must keep the Certificates of Fitness upon his or her person, or otherwise readily available for inspection by any representative of the Department.

The safety personnel should be familiar with the procedures of evacuation and the evacuation routes for the areas where they are performing their duties. The safety personnel must be familiar with the duties for notifying the Fire Department in the event of fire or other emergencies (**FC Chapter 4 Section 401.2**). Further information is available at:

- Emergency Planning and Preparedness: **[FC Chapter 4 Section 403 & 407]**
- Fire Protection System: **[FC Chapter 9 Sections 901, 903, 905-907]**
- Means of Egress **[FC Chapter 10]**

Definitions

Assembly Areas - A designated area outside of a building to which building occupants are directed to report upon implementation of a partial or full evacuation in accordance with a comprehensive fire safety and emergency plan or a fire and emergency preparedness plan.

Assembly Group Occupancies- is the use of a building or structure for the gathering of any number of people for purposes such as public, social or religious functions, recreation, food or drink consumption, awaiting transportation, or similar group activities.

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

Emergency Health Care Facility - A sheltered area or building either naturally or artificially so lighted as will promote the health and safety of patients provided emergency medical care and containing cot(s) and/or litter(s) and emergency medical equipment and supplies as required by New York State Sanitary Code PART – 18.2.

Evacuation – The emptying of a building or part of building occupants in response to a fire or non-fire emergency.

FEP - Fire and emergency preparedness plan.

FEP Staff - The individuals identified in a fire safety and emergency preparedness plan as responsible for the implementation of such plan, including but not limited to FEP coordinators.

Fire and Life Safety Director - The Certificate of Fitness holder who perform duties of such position, and who possesses the Certificate of Fitness requisite qualifications and training, as set forth in the Fire Rules.

Fire Drill - A training exercise by which building occupants are familiarized with and/or practice the procedures for the safe, orderly and prompt sheltering in place, in-building relocation, partial evacuation or full evacuation or any combination in the event of a fire, in accordance with the emergency preparedness plan for the premises. Fire drill will be conducted at certain intervals based on occupancy type.

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

The NYC Department of Buildings classifies groups of structures upon the use of occupancy. It is very important to know the difference as each type of occupancy has its unique fire risks. It is important to know the unique location where you are working and bring awareness.

Assembly Group Occupancies: is the use of a building or structure for the gathering of any number of people for purposes such as public, social, or religious functions, recreation, food or drink consumption, awaiting transportation, or similar group activities.

Assembly Group A-1 occupancy includes assembly uses usually with fixed seating, intended for the production and viewing of performing arts or motion pictures. They include but are not limited to motion picture theaters, concert halls, television and radio studios with an audience and theaters.

Assembly Group A-2 includes assembly uses intended for food and/or drink consumption. They include but are not limited to banquet halls, cabarets, casinos, nightclubs (including dance halls), restaurants, taverns, and bars.

Assembly Group A-3 includes assembly uses intended for worship, recreation, or amusement. They include but are not limited to art galleries, bowling alleys, courtrooms, dance studio, funeral parlors, gymnasiums, lecture halls, museums, houses of worship, school auditoriums and transportation terminals.

Assembly Group A-4 includes assembly uses intended for viewing of indoor sporting events and activities with spectator seating. They include but are not limited to arenas, skating rinks, swimming pools, and tennis courts.

Assembly Group A-5 includes assembly uses intended for participation in or viewing outdoor activities. They include but are not limited to amusement parks, bleachers, grandstands, and stadiums.

DISASTERS AT PUBLIC GATHERINGS

In summary, there are 5 main overall issues when performing place of assembly safety personnel duties.

1. Overcrowding and crowd control.
2. Event egress: There were too few exits.

3. Fire safety measures: Emergency exits were blocked or not functioning properly. No appropriate signage was present.
4. Medical preparedness: There was no incident plan in place in case of an emergency.
5. Emergency response: Many events reported poor initial communication or response time with emergency services.

Afterwards, there are case studies based upon past unfortunate events.

These case studies are being provided for educational purposes, only. The facts are based upon public reports and not meant to express any legal opinion or assessment by the FDNY. It is being provided as a “lesson(s) learned” so Certificate of Fitness holder may learn from past publicly reported incidents. It should lead to awareness. The format of these case studies includes fire and non-fire emergencies. It will include a summary of reported facts and lessons learned.

DISASTERS OCCURRING IN OUTDOOR LOCATIONS

Port Said Stadium Disaster, Port Said, Egypt. 2012.

Disaster Summary

At least 79 people were killed and over 1,000 injuries were reported after an Egyptian football match between Al-Masry and Al-Ahly clubs. Al-Masry fans threw bottles and fireworks at the Al-Ahly players. The Al-Masry fans armed with knives, swords, clubs, and stones, and subsequently attacked the Al-Ahly fans, who tried to escape by running away. The deaths were caused by stab wounds, brain hemorrhages, and concussions while some were deliberately thrown off the stands or died in the stampede. The steel exit doors were bolted shut and dozens were crushed to death in the stampede. Over 1,000 injuries were reported, some from the panic in the crowd as fans tried to escape.



Lessons Learned

- Control of hazardous materials.
- Event access points.
- Fire safety measures.
- Emergency responses.

Love Parade Stampede, Duisburg, Germany. 2010

Disaster Summary

21 people who died at the Love Parade music festival tragedy because they were crushed in a mass panic and suffocated when they bottlenecked in a tunnel. Over 500 people were injured. The capacity of the enclosed section was estimated to be 250,000, but there was 1.4 million people attending the festival. The entrances to the music festival were too narrow, and the emergency exits were too few or were blocked.



Lessons Learned

- Crowd control is important. As well as not exceeding capacity.
- Communication with EMS is important.
- Incident plans are important in emergencies.
- Event access points:
Wide routes are very important in evacuating attendees in the event of an emergency; Fire Guards are important in evacuations.

Ellis Park Stadium Disaster, Johannesburg, South Africa. 2001

Disaster Summary

43 people were crushed to death and 158 injuries at an overcrowded stadium. The accident was caused when an estimated 30,000 extra fans tried to cram into the already full 60,000 capacity stadium by shoving and breaking through the fence around the facility or climbing over gates. Guards were unable to stop the crowd from pouring into the already full stands. People outside tried to push into Ellis Park stadium and were trapped against barbed wire. Movement of a mass people caused a major crush incident.



Lessons Learned

- Overcrowding issues have serious consequences.
- Locations must follow the allowable number of people into an event. Exceeding it will clearly endanger occupants.
- Emergency responses issue
Failed to clearly identify and designate areas of responsibility. Poor decision-making by security personnel.
- No operational command center was failure point.

Route 91 Harvest Festival, Las Vegas, Nevada, USA. 2017

Disaster Summary

On the third day of the country music festival, a lone shooter open fired on a crowd of 22,000 concertgoers from his 32nd hotel window at the Mandalay Bay Hotel and Casino. The festival was held on the 17.5-acre open-air Las Vegas Village. He fired more than 1,000 rounds lasting about 10 minutes which ended up killing 60 people and wounding at least 413 others. The chaos and panic of the event caused the total number of injured concertgoers to rise to 867 people.

There were 50 Las Vegas Metropolitan Police Department officers, one Clark County fire prevention inspector and 16 EMS personnel with three ambulances that provided medical care on-site. An initial notification of a mass casualty incident varied among the numerous response agencies. Since the event was on a Sunday evening, most response leaders were at home getting ready for bed when they learned of the news by phone calls, social media, and direct messages from colleagues. One hour later, the shooter took his own life before law enforcement officers knocked down the door

to his hotel room. The motive for the shooting was officially undetermined by the Federal Bureau of Investigations. This incident is considered one of the deadliest mass shootings by a single person in American history.

Lessons Learned

- In emergencies with large crowds, panic can quickly escalate.
- An active shooter with a rifle can cause massive damages.
- Medical attention for large active shooter events has immediate life-saving capacities.
- In large stadiums, many individuals can be injured very quickly due to active shooters.

DISASTERS OCCURING AT INDOOR LOCATIONS

Lame Horse Fire, Perm, Russia. 2009

Disaster Summary

The fire started when sparks from fireworks ignited the low ceiling and its willow twig covering. The fire quickly spread to the walls and damaged the building's electrical wiring, causing the lights to fail. When the evacuation started, some people left via rear exits. The vast intake of oxygen turned the club's hall into a large fire tube and boosted the spread of fire. As fumes and smoke overtook the air, panic erupted, and patrons stampeded toward the exit. One leaf of the club's double doors was sealed shut, and the public was unaware of the backdoor exit behind the stage not shown by emergency lighting. At least 153 people died in the blaze, most killed by carbon monoxide gas and smoke.



Lessons Learned

- Fire safety measure:
Use of pyrotechnics should be only in approved facilities. No proper signs and directions for exiting. The second leaves of two sets of double doors were locked shut.

**Station Nightclub Fire, West Warwick, RI, USA.
2003**

Disaster Summary

More than two-thirds of the 462 people in attendance were either killed or injured (100 dead, 230 injured). A live band that was using fireworks as part of its act ignited foam insulation that had been installed around and over the stage. The flames quickly moved to the ceiling, creating billows of smoke and a panicked race for the front door.



Lessons Learned

▪ Fire safety measure:

The club did not have an automatic fire sprinkler system to extinguish the fire. Club was at capacity but was not overcrowded. Most of the victims died at the primary entrance where the rush of frantic spectators created a logjam at the front door. No proper signs or directions to direct the panic people to use exit routes other than the front door.

Uphaar Cinema Fire, Delhi, India. 1997.

Disaster Summary

The fire broke out after the transformer at the parking level burst into the theatre's basement car park, and 20 cars in the parking lot caught fire, eventually spreading through the cinema. 59 people died and 103 were seriously injured in the subsequent stampede; most of the victims were trapped on the balcony and were suffocated as they tried to reach dimly marked exits to escape the smoke and fire, and found the doors locked.



Lessons Learned

▪ Emergency responses issue:

Cinema management was blamed for losing precious time in alerting the fire services. When the fire broke out, the movie did not stop, nor any announcement made to evacuate the audience.

- Fire safety measure:

The proper distance between the transformer room and the car park was not maintained. Exit signs were not battery-operated and once the lights went out, panic-struck people had to grope in the dark for exits, many of which were blocked by seats.

Colectiv Nightclub Fire - Bucharest, Romania. 2015.

Disaster Summary

The fatal fire occurred in an occupied nightclub during a free concert by the illegal use of pyrotechnics indoors. The flammable polyurethane acoustic foam on one of the pillars near the stage ignited and spread quickly to the ceiling eventually causing the pillar to collapse. At first concertgoers thought that the flames were part of the show and did not immediately react. Once the fire grew across the ceiling between 200-400 concertgoers panicked and rushed to the only working exit door of the venue causing a stampede. Only one side of the double exit door was operational causing it to be too narrow for adequate egress. Many tried to break down the other half of the egress door while others smashed windows to escape. Many concertgoers at this point were suffering from burns and respiratory distress. The fire killed 64 people and injured 146 others causing it to be the deadliest fire in their country's history.

Lessons Learned

- The club had only one means of egress (door was 31 inches wide) and no fire suppression system.
- Only one fire extinguisher was provided for a 4,570 square foot nightclub.
- The club was authorized for only 80 seats but allowed in more concertgoers causing an overcrowding condition.

Iraqi Wedding Hall – Hamdaniya, Iraq September 2023

Disaster Summary

The lethal fire broke out at an occupied wedding venue during the bride and groom's first dance. As the dance began, a ring of pyrotechnic machines on the floor released sparks into the air. The walls and ceiling panels were made of highly flammable Ecobond that violated safety instruction requirements, caught fire and burst into flames. Guests stampeded towards the exit doors as flaming decorations and pieces of the ceiling began to rain on them. Minutes later the ceiling collapsed obstructing egress causing injuries and deaths. A blackout occurred shortly after ensuing mass chaos and panic. The fire killed 94 individuals and injured 150 people. 30 people have been identified by family members, but the rest are too badly burned and will require DNA identification. 14 individuals were arrested in connection with the

incident due to the hall not meeting safety measures and no fire extinguishers were present.

Lessons Learned

- No fire extinguishers were present at the venue.
- Sufficient egress for the amount of people present (1,300 people) was not provided.

The Dark Knight Rises, Aurora, Colorado, USA 2012

Disaster Summary

On July 20, 2012, a mass shooting occurred inside a movie theater during a midnight screening of the film *The Dark Knight Rises*. According to police the shooter, James Holms bought a ticket to the movie, entered the theater and sat in the front row. About twenty minutes into the movie, he left his seat and exited the theater through an emergency exit door by the movie screen which led to direct access into the parking lot at the back of the shopping complex. He propped open the doorway using a plastic tablecloth holder. 400 people were inside the theater. Holmes went to his car, changed into tactical gear and a gas mask, and retrieved his guns. He returned through the same exit door. He threw a canister containing smoke and/or gas that partially obscured the audience members' vision and caused eye and throat irritation. Ambulances were delayed due to congestion and panic at scene causing delays in critical care. Holmes fired 76 shots in the theater which killed 12 people and injured 70 others (58 being from gunfire).

Lessons Learned

- Prompt notification to emergency first responders, results in faster responses onsite by personnel.
- Where possible, ensure access to first responder emergency vehicles to provide life-saving care.

Proper responses, different results

Electric Cinema Fire, London, UK. 2012

Event Summary

Around 200 people were evacuated from a cinema after it caught fire on a busy shopping street. Up to 60 firefighters battled the blaze and 12 fire engines were sent to the scene. The staff acted quickly, calling emergency services who were on site immediately, and all members and guests were safely evacuated with no injuries.

Lessons Learned

- Swift actions by the cinema staff helped prevent a major catastrophe from occurring by making a prompt phone call to emergency services.
- Members and guests were evacuated, and no fatalities were reported.

Fine Line Music Cafe Fire, Minneapolis, Minnesota, USA. 2003

Event Summary

Fine Line fire, which left \$1.8 million in property damage, was started when a band's pyrotechnics ignited a fire in the ceiling, as it was at The Station Nightclub Fire. But unlike The Station, The Fine Line was prepared for the emergency, not overcrowded and fitted with proper emergency exits. Once the fire was discovered, management and staff evacuated patrons from the building to safety. 120 patrons were escorted to safety within two minutes. There were no injuries.

Lessons Learned

- Overcrowding was not an issue at this café, making it easy to evacuate the occupants.
- Emergency exits were not blocked and in proper working order.
- Safety preparedness saves lives.

Lunt-Fontanne Theater (Broadway), New York, New York, USA. 2015

Event Summary

A medical emergency temporarily stopped a Broadway musical performance. A woman collapsed about three minutes into the performance. The staff at the theater made an announcement over the PA system announcing that there is a medical emergency in the theater. All performers were asked to congregate backstage while paramedics rushed to the theater and assisted the woman in distress. The incident lasted about twenty minutes and then the show was able to continue without further interruption.

Lessons Learned

- A vigilant member in the audience spotted a woman having a medical emergency.
- Contact was quickly made with emergency services personnel.
- Quick response by paramedics helped the woman receive medical attention and the show was only delayed for twenty minutes.
- Fast medical response can save lives.

PART I. INDOOR PLACE OF ASSEMBLY SAFETY PERSONNEL

1. THE DUTIES OF PLACE OF ASSEMBLY SAFETY PERSONNEL

Place of assembly safety personnel are to assist with “the occupants” in the event of a fire or other emergency. Verifying that the exits are unobstructed, immediately accessible, and appropriately identified is only the first step towards achieving safety in a place of assembly. Two duties of the place of assembly safety personnel are: (1) maintaining the safety of the occupants during a gathering; and (2) assisting in implementing the evacuation plan in the event of an emergency.

Place of assembly safety personnel are important in preventing injury and fatalities from fires at places of assembly. They should know how to:

- 1) keep exit paths clear;
- 2) be able to identify potential problems;
- 3) how to report the fire or other types of emergencies to the FDNY;
- 4) and how to keep crowds orderly and safe during an emergency.

1.1 Fire safety and evacuation plan

To be an effective place of assembly safety personnel, it is recommended that you have a working knowledge of Fire and Emergency Preparedness Plan (FEP). This comprehensive fire and emergency action plan is required by the NYC Fire Code and states that fire and life safety (FLS) staff consisting of an FLS director, and such other staff is necessary for such building and/or occupancy. The personnel should be provided with an initial and refresher orientation. This orientation should be received from the fire and life safety director/ coordinator, or other on-site personnel. The fire safety personnel must be present during regular business hours and one or more of the members of the FLS staff hold a Certificate of Fitness for place of assembly with knowledge of fire safety.

If any fire safety director or other building employees are responsible for implementing the fire and emergency preparedness plan or training FLS staff is provided in the building, the place of assembly safety personnel must follow their instruction for the emergency procedures. In the event of a fire, or fire alarm, the place of assembly safety personnel must direct the evacuation of the area with directions received and the evacuation plan.

If a fire safety director or other building employees are responsible for applying the fire and emergency preparedness plan or training, the FLS staff must follow the instructions for the emergency procedures. In the event of a fire, or fire alarm

activation the place of assembly personnel must direct the evacuation of the area in response with the directions received and the evacuation plan.

Safety personnel should know the location of exits and how to communicate with FDNY and the occupants in case of an emergency.

1.2 Pre-event visual check

Pre-event visual checks are important to reduce the potential risks associated with public assembly events. The pre-event visual check should be conducted by the designated person (e.g., your supervisor, or you) before the occupancy is to be used or occupied. If any defects are discovered, the building owner or the designated responsible person (e.g., your supervisor, or you) should be aware of it and should make arrangements to have the defects corrected **IMMEDIATELY**. If an issue that cannot be resolved immediately, such as an electrical issue, an impairment of a sprinkler or standpipe systems are found further action will need to be addressed as written in the Fire Code. Otherwise, if the issue is not resolved the event may be canceled. Additional fireguards may be required, an FDNY watch line (a fire company remains on scene to evaluate if flow of water is needed) or other drastic measures will need to occur before the event can begin.

The following safety requirements should be met:

- (1) All physical features are installed or arranged according to the approved place of assembly drawing.
- (2) Door hardware and physical components of the means of egress are always maintained in good working order.
- (3) All required means of egress and access to each exit, exit access and exit discharge, are being maintained free from obstructions and impediments in the event of fire or other emergency.
- (4) No storage of combustible material and combustible waste in corridors.
- (5) Maximum capacity is posted (placard required).
- (6) Emergency exit lighting is present and operational.
- (7) Exit signs are posted.
- (8) Seats should be securely fastened to the floors. For temporary seating, the seats must be secured together in an approved layout.
- (9) A functioning fire alarm and sprinkler system, if available. If any required fire protection system is out of service, additional F-01 fire guard(s) is/are required.

The acronym **ESCAPE** may be used as a reminder for doing the pre-event inspection:

- E** - Exits – All exits are unblocked, unlocked, and properly marked
- S** - Storage – The occupancy is clean, orderly and there is no excessive storage. No storage of combustible material and combustible waste in corridors. Hazardous materials are stored, handled or used only in the designated areas and are away from any ignition sources.
- C** - Capacity – The number of persons occupying the building or space does not exceed the posted capacity. Capacity certificates are properly posted.
- A** - Aisles – All aisles are free and clear at all times.
- P** - Protection – Smoke, fire alarm, sprinkler systems, and fire extinguishers are in proper working order.
- E** - Emergency exit lighting – All exit signs and emergency exit lighting are working properly.

Examples of unacceptable situations

Blocked Exit



Locked Exit



Obstructed Aisle



Obstructed Manual Pull Station



1.3 During the event

As a place of assembly safety personnel, your responsibilities include:

- (1) You should be aware of possible overcrowding. Monitor the amount of people in your area of assembly. If you notice that your responsible area is excessively crowded, you should inform your supervisor immediately and follow his/her instruction.
- (2) You should monitor your areas of assembly and confirm that the exit paths are always clear. **Required aisles must be unobstructed.** People are **NOT** allowed to stand, in an aisle.
- (3) You should look for situations that could lead to challenges in the event of emergency.

An example of a Checklist is shown below.

Checklist for your area of responsibility (Indoor)

List	Mark "x" if yes	Note
Pre-event		
1. Do you know the locations of the exits, stairways and evacuation routes?	<input type="checkbox"/>	If no, obtain such information before starting your duty.
2. Do you know how to notify the FDNY in case of emergency?	<input type="checkbox"/>	If no, obtain such information before starting your duty.
3. Do you know how to notify your supervisor in case of overcrowding and emergency?	<input type="checkbox"/>	If no, obtain such information before starting your duty.
4. Exits and stairways - Are they free of obstructions? Are exit doors/gates free of locks? Do self-closing doors all close, and is lighting in exit corridors adequate and fully operational?	<input type="checkbox"/>	If no, correct and comply
5. Storage - Is the area clean, orderly and no excessive storage? Are the hazardous materials stored, handled, or used only in the designated areas and are away from any ignition sources?	<input type="checkbox"/>	If no, correct and comply
6. Capacity certificate placard - Is it posted?	<input type="checkbox"/>	If no, correct and comply
7. Aisle – Are aisles free and clear at all times?	<input type="checkbox"/>	If no, correct and comply
8. Protection –	<input type="checkbox"/>	If no, correct and comply
<ul style="list-style-type: none"> ▪ Are any fire extinguishers provided and are they operational? ▪ Are fire alarm pull stations provided and operational in my area of responsibility? 	<input type="checkbox"/>	If yes, where are they located? _____ If not required, what procedures will be used to notify the building occupants of a fire? _____
9. Emergency exit lighting – Are they operational?	<input type="checkbox"/>	If no, report to your supervisor
10. Lithium-Ion Battery operated mobility devices (E-bikes & E-scooters) other than Management.	<input type="checkbox"/>	If yes, report to your supervisor
During-event visual check		
Exit and aisles – Are the exits and exit paths staying clear? Are all marked exits unlocked and unobstructed at all times?	<input type="checkbox"/>	If no, correct and comply
Potential hazards - any situation that could lead to challenges in the event of an emergency?	<input type="checkbox"/>	If yes, correct and comply

Emergency Notification Procedures:

- Call 911.
- Notify the building occupants by _____.
- The designated people (e.g., fire safety director or building owner) for emergency situations. Their phone numbers are:

Name	Phone number
_____	_____
_____	_____

2. SPECIAL FIRE SAFETY PRECAUTIONS FOR PERFORMING ARTS AND MOTION PICTURE THEATERS (A-1 OCCUPANCIES)

Safety personnel are required for performing arts, motion picture theaters or other similar indoor public gatherings. Regular inspections are required for theaters. Every theater admitting an audience must be periodically inspected for fire safety in compliance with the Fire Department requirements.

2.1 Daily visual checks.

The Certificate of Fitness holder must conduct the daily visual checks in a performing arts or motion picture theater on any day in which the premises is to be used and occupied for a performance. Such visual checks must verify compliance with the following requirements:

- (A) **Means of egress**, including exit access, exits and exit discharges, must be inspected daily to ensure that they are unobstructed, that there are no impediments to their immediate use and that door hardware and other devices and components are in good working order.
- (B) **Automatic fire doors** must be visually checked to ensure that there are **no obstructions** to their closing.
- (C) **Standpipe and sprinkler systems** monthly inspection records should be up to date and in a bound logbook and readily available for inspection by an FDNY representative.
- (D) **Portable fire extinguishers** must be visually checked to ensure that they are readily available for use.
- (E) If special effects are to be used during the performance, all the conditions of the permit, including, where applicable, a fire watch and/or additional portable fire extinguishers, are in place.
- (F) **Manual fire alarm boxes** inspection records should be up to date and in a bound logbook and readily available for inspection by an FDNY representative.
- (G) The inspection records for skylights and other stage smoke vents are up to date and in a bound logbook and readily available for inspection by an FDNY representative.
- (H) All areas of the theater, including the backstage, under the stage, and outdoor areas must be visually checked to confirm that there is no accumulation of rubbish or other combustible waste that, if ignited, could cause a fire or smoke condition.

All logbooks and records must be kept on the premises for a minimum of three (3) years and readily available for inspection by an FDNY representative.

2.2 During the performance.

The event coordinator should make an audio announcement not more than 10 minutes prior to the start of each performance or program. This announcement informs the occupants of the location of the exits to be used in case of an emergency.

As a place of assembly safety personnel, you should verify if the following requirements are complied with:

- (A) The **prohibition against smoking** in performing arts, motion picture theaters or other similar indoor public gatherings.
- (B) All doors in a performing art theater are to be kept closed.
- (C) **Aisles must be unobstructed.** It is prohibited to stand, or allow any person to stand, in an aisle. The space to be occupied by standing audience members must be separated from the space and be left clear for passage by a rope, tape, barriers, barricades, fencing or other suitable materials. A height of not less than 3 feet and not more than 4 feet above the floor, supported by lightweight posts, all to be constructed and not cause an obstruction in case of panic or emergency. Such standing areas must be clearly defined by durable markings on the floor indicating the standing area. **For balconies, only one row of persons is allowed to stand in balconies.**

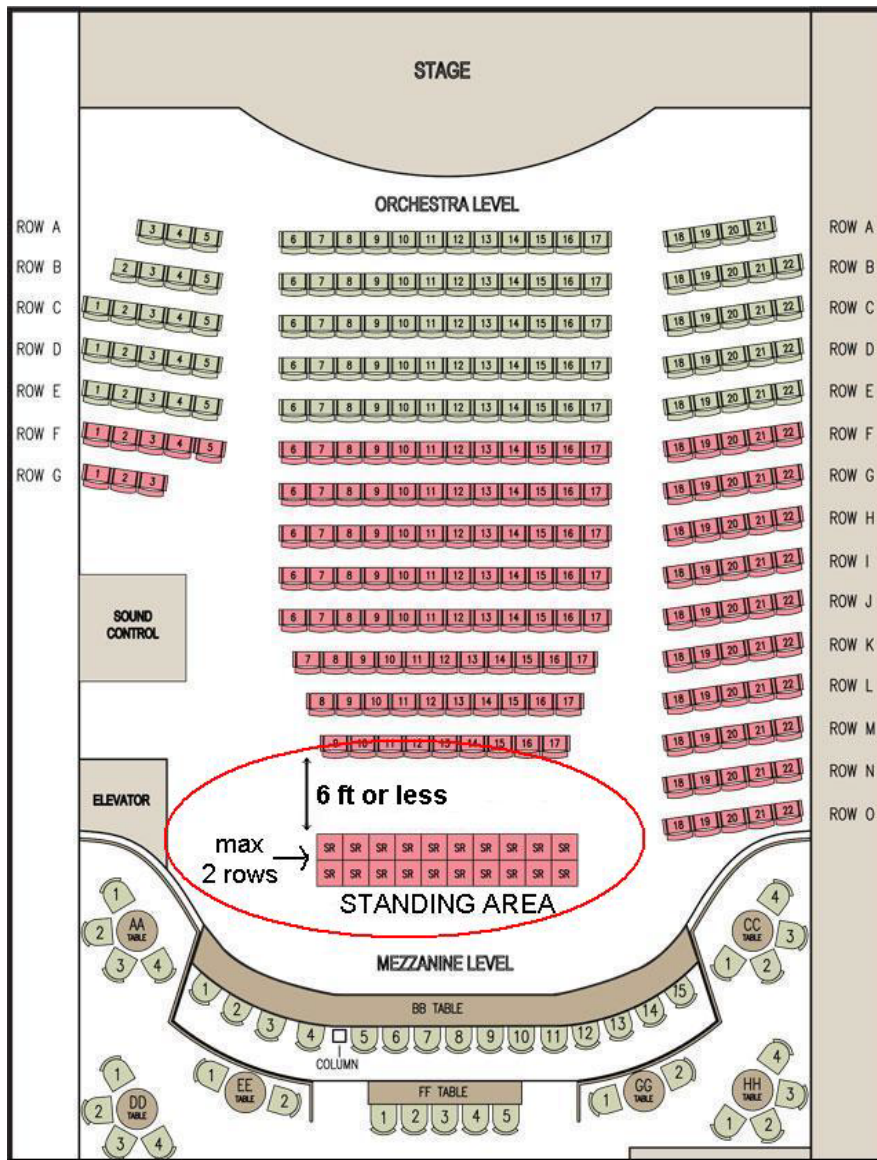


Aisles must be unobstructed.

Standing in passageways:

Patrons standing in passageways is a serious problem. Blockages can cause delays during evacuations and emergencies. There should be 6-10 feet of available space to exit during an emergency. Patrons should always be asked to move in case of an emergency. Monitoring of the passageways **MUST** be done throughout the performance.

Figure 3.



2.3 Regular visual checks.

A-1 occupancies must be operated and maintained with all FDNY requirements. Out-of-service fire alarm, sprinkler or standpipe systems **MUST** be reported immediately to your supervisor. Also at least one F-01 Fire guard must be present when the system is out of service. **The F-03 certificate will not cover duties for F-01.** Your supervisor will need to make arrangement for an F-01 Certificate of Fitness holder. If you hold an F-01 Certificate of Fitness, you **CANNOT** do both duties at the same time.

PART II. TEMPORARY PLACE OF ASSEMBLY SAFETY PERSONNEL

3. THE DUTIES OF TEMPORARY PLACE OF ASSEMBLY SAFETY PERSONNEL

3.1 Orientation

Safety personnel are required in any event that needs a temporary place of assembly permit (TPA), for example, festivals, outdoor concerts or other similar temporary public gathering.

Prior to the temporary place of assembly event, the sponsor and any promoter of the event must provide **a site plan approved by the NYC Department of Buildings**. Your supervisor, you or other designated person should verify that operations and facilities are designed, installed, operated and maintained in compliance with the requirements of the site plan and Fire Code.

For Temporary Public Assembly activities, the safety personnel may perform their duties for different events based on different site plans. Upon the arrival of the safety personnel to the area, the personnel should be provided with an orientation from the event coordinator or other on-site personnel familiar with the site plan.

Generally, from the orientation, as place of assembly safety personnel, you should know:

- (1) the location and number of exits.
- (2) the procedures of evacuation and the evacuation routes.
- (3) the number of occupants.
- (4) the locations of fire extinguishers.
- (5) if there is a dedicated telephone line to the Fire Department it must be available for an emergency.
- (6) contact with emergency medical personnel.

Normally, the NYC Department of Buildings requires:

- (1) every safety personnel posted at an exit must be equipped with a two-way radio communication (walkie-talkie) in order to communicate with persons manning a telephone to the Fire Department for an emergency.
- (2) every safety personnel posted at an event entrance must be equipped with a device (e.g., scanner, hand-held counter, ticket) to verify the occupancy count. (The designated person should monitor the occupants load and actual flow of the public gathering area.)

3.2 Pre-events visual checks

The pre-event visual check should be conducted by the designated person (e.g., your supervisor, or you) before the area is to be used or occupied. The following site conditions must be visually checked prior to the event:

Exit- All exits are unblocked, unlocked, and properly marked.

Storage- The area should be clean, orderly and no excessive storage. All means of egress should be free of debris and rubbish. No storage of combustible material and combustible waste is allowed in the corridors. Hazardous materials are stored, handled or used only in the designated areas and are away from any ignition sources.

Capacity Limit- The allowable number of persons in the event.

Aisle – All required aisles are free and clear at all times. Temporary seating must be secured together in an approved layout.

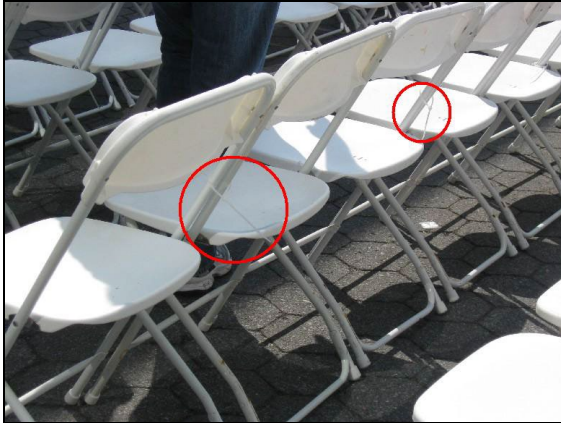
Protection –The fire extinguishers are provided at a clear and accessible location(s), and they are operational.



All aisles are free and clear at all times.



The area should be clean, orderly. The electric wires should be secured by cord covers in order to minimize the tripping hazards.



Chairs should be ganged.



Temporary, unsecured or un-ganged chairs may pose a great hazard in event of emergency.

3.3 Prohibitions

1. **Compressed Natural Gas (CNG)**

The storage, handling and use of portable CNG cylinders are prohibited at outdoor public gatherings.

2. **Flammable Liquids**

It is illegal to store, handle or use flammable liquids at outdoor public gatherings, except in listed generators or other device, equipment or system or operation approved by the Department. Storage of flammable liquids is prohibited, and all fueling of generators and other approved devices, equipment and systems must be conducted before the event is open to the public.

3. **Lithium-Ion Battery Powered Mobility Devices** (Electric Bicycles and Scooters)

Guests are **NOT** permitted to **charge or store** lithium-ion batteries at events.

4. **Pyrotechnic** use is strictly prohibited without a permit from the FDNY.

3.4 During the event

As a place of assembly safety personnel, your responsibilities include but not limited to the following duties.

- (1) You should prevent overcrowding by monitoring the amount of people in your area of assembly. If you notice that your responsible area is excessively crowded, you should inform your supervisor immediately and follow his/her instructions.
- (2) You should monitor the areas and confirm that the exit paths are always clear. **Required aisles must be unobstructed.** People are **NOT** allowed to stand in an aisle.
- (3) You should look for situations that could lead to challenges in the event of emergency.

An example of a Checklist is shown below.

Checklist for your area of responsibility (Outdoor)

List	Mark "x" if yes	Note
Pre-event		
1. Do you know the evacuation routes?	<input type="checkbox"/>	If no, obtain such information before starting your duty.
2. Do you know how to notify the FDNY in case of emergency?	<input type="checkbox"/>	If no, obtain such information before starting your duty.
3. Do you know how to notify your supervisor in case of overcrowding and emergency?	<input type="checkbox"/>	If no, obtain such information before starting your duty.
4. If you are posted at an exit, are you equipped with a two-way communication device (e.g., walkie-talkie)?	<input type="checkbox"/>	If no, obtain one before starting your duty.
5. Exits and stairways - Are they free of obstructions? Are exit doors/gates free of locks? Are self-closing doors closed, and is lighting in exit corridors adequate and fully operational?	<input type="checkbox"/>	If no, correct and comply
6. Storage - Is the area clean, orderly and no excessive storage? Are the hazardous materials stored, handled or used only in the designated areas and are away from any ignition sources?	<input type="checkbox"/>	If no, correct and comply
7. Capacity limit - Are the allowable number of persons in the event?	<input type="checkbox"/>	If no, obtain such information before starting your duty.
8. Aisle – Are aisles free and clear at all times.	<input type="checkbox"/>	If no, correct and comply
9. Protection – <ul style="list-style-type: none"> ▪ Are fire extinguishers provided? Where are they? Are they operational? 	<input type="checkbox"/>	If no, obtain such information before starting your duty.
10. Lithium-Ion Battery operated mobility devices (E-bikes & E-scooters)	<input type="checkbox"/>	If yes, report to your supervisor
During-event Inspection		
Exit and aisles – Are the exits and exit paths clear? Are all marked exits unobstructed at all times?	<input type="checkbox"/>	If no, correct and comply
Potential hazards - any situation that could lead to challenges in the event of an emergency?	<input type="checkbox"/>	If yes, correct and comply

Emergency Notification Procedures:

- Call 911.
- Notify the area occupants by _____.
- The designated people (e.g., fire safety director or event coordinator) for emergency situations. Their phone numbers are:

Name

Phone number

PART III. FIRE PROTECTION SYSTEM, EMERGENCY PROCEDURES AND FIRE EXTINGUISHERS

4. FIRE PROTECTION SYSTEM

4.1 Manual or pull station devices.

Fire alarm systems are intended to notify the building occupants to evacuate in the event of a fire or other emergency. Some fire alarm systems are activated automatically. Other fire alarm systems must be activated manually. Fire alarm systems that are manually activated use fire alarm pull stations. **The interior manual pull stations may not directly transmit a signal to the Fire Department. A telephone call must always be made to 911 or the Fire Department dispatcher. Do NOT assume that the Fire Department has been notified because you hear a fire alarm or smoke detector sounding in the building.**

Fire alarm pull stations are usually located near the exits throughout the protected area so that they are conspicuous, unobstructed, and easily accessible. **Activating the pull station is the most effective way to notify the building occupants in case of a fire emergency.** There is at least one manual fire alarm station on each floor of a building with the exception of apartment buildings. 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. 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 lever is pulled down, it allows a switch inside to close. This sends the alarm signal.



Single action stations



Activate 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 then can gain access to a switch or lever which must be operated to initiate an

alarm. 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 station



Activate a double action station

The Certificate of Fitness holder must know how to manually operate all alarm stations on the premises. Once a pull station has been activated, the fire alarm system cannot be re-set just at the fire alarm manual pull station. A key may be required to reset the pull station. The alarm must be re-set at a main FACP (Fire Alarm Control Panel) after the pull station reset to its normal condition. Only when directed by a Fire Department representative, an S-95 holder, the alarm control panel can then be re-set.

Certificate of Fitness holders must know the location of all fire protection devices. Manual stations should never be blocked or obstructed.

4.2 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:

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

The Certificate of Fitness holder must know all the fire safety requirements including proper signage. The certificate holder should also make sure that exit signs posted above doors are always illuminated. Examples of some of these signs are shown below.

Typical Safety Signs

Exit Signs



Special Exit Signs



Fire Extinguisher Sign



Elevator Warning Sign



No-smoking Sign



Sprinkler Sign



Stair Signs



(posted by outside of door)

(posted by door inside of stairwell)

4.3 Sprinkler system

A fire sprinkler system is an active fire protection requirement specified by FDNY regulations and laws. It consists of a water supply system that provides adequate pressure and flows at a rate to a water distribution piping system, which fire sprinklers are connected. Its purpose is to control the fire and to extinguish the fire.

When the sprinkler system is out of service, it cannot extinguish fires. When sprinklers are not present, the chances of dying in a fire or the property loss in a fire will be significantly increased.

The sprinkler heads are normally closed by a disk or cap. This cap is held in place by a heat sensitive releasing element. During a fire, the sprinkler system is activated, the disk or cap will fall off.

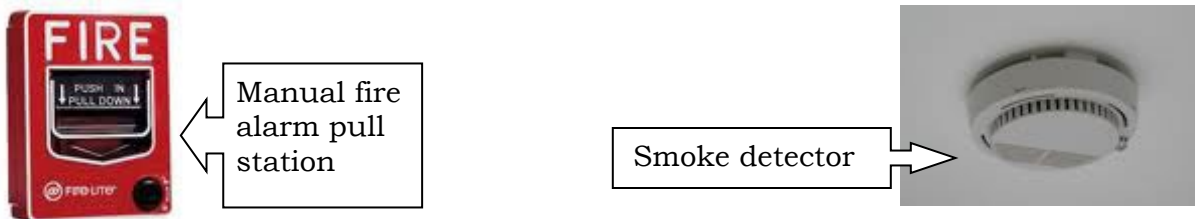
A Certificate of Fitness for S-12 for Supervision of Citywide Sprinkler System is responsible for conducting inspections and ensuring maintenance.

4.4 Standpipe system

A standpipe system is a fire protection system that is designed to provide rapid access to water if a fire breaks out. Standpipes are installed act like fire hydrants. Standpipe systems can be combined with sprinkler systems. If the standpipe system is out of service, fire fighters may not be able to access to the water delivery system for manual firefighting.

Dry standpipe systems consist of a series of pipes which bring water to various points in a building. The pipes are dry and empty whenever there is not a need. Wet systems are “charged,” meaning that they always are filled with water.

Fire alarm system



Fire alarm systems are required in many premises as part of a fire protection system. The primary purpose of fire alarm systems within a premises is to warn building

occupants and transmit signals indicating a fire condition to the Fire Department via an approved central station company. An out-of-service fire alarm system may cause a delay in building users and the Fire Department being alerted to a fire and then lead to a risk of serious property loss, personal injury or death.

A fire alarm system is a system consisting of many components which may include: control panel, pull stations, sprinkler water flow device, smoke detectors and voice communication.

In general, a fire alarm system is classified as automatic, manually activated, or both. If a fire condition occurs, the alarm system warns the occupants within the premises by activating loud sirens, gongs, bells, speakers, horns and flashing lights (strobes). It also notifies the fire department through the central station. An S-95 Certificate of Fitness for Supervision of Fire Alarm System is responsible for conducting inspections and ensuring maintenance.

5. EMERGENCY PROCEDURES

5.1 General emergency procedures

The safety personnel must have a method of communicating to emergency services. The building owner or the designated person should provide a communication method for the safety personnel to notify FDNY in case of fire or other types of emergencies. **Notification by phone is the most direct and effective way to notify the Fire Department. The safety personnel must also sound the fire alarm pull station when available. Activating the pull station is the most effective way to notify the building occupants in case of a fire emergency.**

To report an emergency event by telephone, the safety personnel must dial 911. **After calling 911, the safety personnel should follow the emergency reporting protocols** provided by your supervisor. For example, the supervisor or the building owner should be notified. The supervisor or the building owner will also issue instructions to the safety personnel. The safety personnel must follow the instructions closely. For example, the responsible person may instruct the safety personnel how to take the safest evacuation route from the building.

As a public assembly safety personnel, the FDNY highly recommends that you should be equipped with a flashlight, two-way radio communication device (e.g., walkie talkie), and a cell phone. **If you reach your post and have no cellular service, you should immediately notify your supervisor.** Then, plan to have another form of communication in case of an emergency. You should be familiar with your facility's emergency response plan. You must be trained by the responsible personnel to know your responsibilities during emergencies.

5.2 Fire emergency

In case of a fire emergency, the most direct and effective way to notify the FDNY is by calling 911 and activating the manual pull station when available. The fire alarm will send an alarm signal and it may also notify an approved central station company. The Fire Department should be contacted directly by phone or another approved device.

In case of a fire emergency, building occupants may have to be evacuated. If the safety personnel are responsible for assisting in the evacuation, the safety personnel should remain composed and in control of the situation. He/she should speak in a clear and concise manner when assisting with the evacuation. The safety personnel's instructions and his/her actions play an important role in reducing panic during an emergency. Occupants should be instructed to be calm and move quickly to the

nearest exit in an orderly manner. The safety personnel should guide the occupants not to use the elevators and should identify the stairwells or other routes of egress for occupants. They should direct them to use only those stairwells or routes of egress for their safety.

In summary, the procedures should be:

- Call 911. Provide the following information:
 - Business name and street address.
 - Nature of fire: the extent of the fire (small, large, etc.).
 - The exact location of the fire (building and floor or room number), if known.
 - Telephone number for return call.
- Notify the building occupants by using the fire alarm pull station, if available.
- Notify the designated building personnel (fire safety director or building owner).
- If there is any fire safety director or any FEP staff on duty, follow their instruction for evacuation. If there is no fire safety director or any FEP staff in charge, evacuate the area (in-building relocation, partial evacuation, or evacuation of building occupants) along evacuation routes to assembly areas designated by the evacuation plan.

5.3 Medical emergency

In the case of injury or some other medical emergency, inform the designated person in charge. For the place of assembly events with an attendance of over 5,000 people, an on-site emergency health care facility may be provided. If an emergency health care facility is provided on site, the building owner, or the designated person (e.g., your supervisor) should provide a communication method for you to notify the facility for any medical emergency. If there is no on-site emergency health care facility, the safety personnel should call 911 and also **follow the medical emergency reporting protocols.**

In summary, the procedures should be:

- Call 911/notify the emergency health care facility.
- State the immediate medical need and describe:
 - Your location and the location of victim(s) (if different from your location), including the business name, street address and room number if you know.
 - Telephone number for return call.
 - The number of victim(s) (if different from your location).
 - Nature of injury or illness or the victim(s)'s present condition (e.g., bleeding, breathing erratically, conscious/unconscious, etc).
 - Hazards involved.

- Follow the exact instructions of the 911 operators or the instructions of the onsite medical technician of the emergency facility.
- Alert trained employees (members of the medical response team) to respond to the victim's location and stay with the victim(s). Only the trained responders/employees should provide first aid assistance. If there are no trained responders/employees on the premises, designate a responsible person (e.g., member of Fire Brigade) to stay with the victim(s).
- Arrange for an elevator to be placed on standby.
- Do not move the victim unless the victim's location is unsafe.
- Control access to the scene.
- Arrange a designated person to meet the ambulance at the nearest entrance or emergency access point; direct them to victim(s)

5.4 Bomb or other explosion threats

If you suspect any suspicious packages and are unable to verify its contents, you should follow the emergency reporting protocols provided by your supervisor. You should do the following:

- Do not touch/move/open the article.
- Your supervisor or the designated person (e.g., fire safety director or supervisor) should be notified. Wait for the instruction from the first respondent. If there is any fire safety director on duty, follow their instructions.
- If you call 911. Provide the following information:
 - Your location and the location of suspicious package (if different from your location), including the business name, street address and room number if you know.
 - Telephone number for return call.

5.5 Chemical incident or release

- In case of a major spill, you must notify the Fire Department by calling 911 immediately. After calling 911, your supervisor or the designated person (e.g., fire safety director) should be notified.
- Wait for instructions from the first respondent. If there is any fire safety/director on duty, follow their instructions.

5.6 Active shooter incidents

Because active shooter attacks are dynamic events, the FDNY cannot put forth a set of required actions during such incidents. However, the FDNY has compiled a list of best practice recommendations based on booklets developed by the New York City

Police Department, U.S. Department of Homeland Security, and U.S. Department of Justice for safety personnel to best respond if an active shooter attack occurs. The following recommendations are **general guidelines**.

They are considered as best practice and may be useful in a real-life emergency. It is NOT the purpose of this training material to provide unbending, absolute rules for situations in which there are a great many variables. The most appropriate emergency responses may vary depending on the specific active shooter situation which occurs within the context of the event, the building design and components.

If an active shooter incident occurs outside the building

If an active shooter incident is occurring outside the building, as a safety personnel member, you should:

- call 911 immediately.
- secure the building entrances (including loading docks, garage doors, etc.) to prevent the shooter(s) from entering the building.
- Notify the designated building personnel (e.g., fire safety director or building owner).
- relocate all the occupants in the affected area (i.e., the areas that may experience the immediate impact/effect by the incidents), such as lobby or window areas, to a safe in-building relocation areas.
- prevent building occupants from evacuating to avoid encountering the outside threat.

If an active shooter incident occurs inside the building

If an active shooter incident is occurring inside the building, as a safety personnel member, you should react quickly when gunshots are heard and/or when a shooting is witnessed by following one of the three tactics: Avoid, Barricade, Confront.

NYPD suggests three survival techniques during an active shooter incident. The survival techniques can be fluid based on the threat and may not have to be followed **in any specific order**. Individual decisions should be made based on the active shooter's location(s).

1. Avoid (run/evacuate)

If there is an accessible escape path, attempt to evacuate the premise. Be sure to guide/assist the occupants with the following issues:

- Have an escape plan and route in mind.
- Visualize the entire escape route before beginning to move, and avoid using elevators or escalators.
- Evacuate regardless of whether others agree to follow.
- Leave your belongings behind, DO NOT CARRY ANY PACKAGES OR ITEMS THAT COULD BE CONFUSED AS A WEAPON OR DEVICE.
- Help others escape, if possible.
- Prevent individuals from entering an area where the active shooter may be.
- Call 911 when it is safe to do so. Provide the pertinent information.

2. Barricade (hide)

If it is not possible to evacuate, find a place to barricade yourself into where the active shooter is least likely to find you.

(1) Where to barricade:

- Ideal barricade place should be out of the active shooter's view, but not just visual concealment. Soft walls, desks may conceal but provide no substantial ballistic protection.
- Ideal barricade place should be an area with both visual concealment and ballistic cover that can provide protection if shots are fired in your direction. Cover is something of substantial thickness and weight that will stop a bullet. Office furniture and equipment such as vending machines, copy machines, and file cabinets can stop many types of bullets.
- Ideal barricade place should not trap or restrict your options for movement.

(2) What to do when barricading:

- Lock the door, if applicable.
- Blockade the entrance with heavy furniture, if applicable.
- Silence, not vibrate, your cell phone, pager and/or any other electronic devices.
- Turn off any source of noise (i.e., radios, televisions).
- Hide behind large items (i.e., file cabinets, copy machines, soda machines).
- Remain quiet.

3. Confront (fight/take action)

If it is not possible to avoid and/or barricade, as a last resort, and only when your life is in imminent danger, attempt to disrupt and/or incapacitate the active shooter:

- Collaborate and act as a group, if possible.
- Act aggressively.
- Throw items and improvise weapons.
- Yell.
- Commit to your actions.

As a civilian, you are not expected to neutralize an active shooter threat. However, you should try to implement the actions that could minimize the injuries to the occupants.

For example, if an active shooter starts shooting in close proximity of your location, you should protect yourself based on the three tactics suggested by the NYPD. You may run away from the scene; you may hide/shelter in place, or you may decide to confront the shooter, as a group if possible, using improvised weapons. Remember all of these are a personal choice to be decided on by you at that moment.

Call 911 as soon as it is safe to do so. Once you feel it is safe to return to your designated working location, if safe to do so, return to carry out your suggested responsibilities.

The following actions are recommended by the FDNY upon active shooter events, IF YOU FEEL IT IS SAFE TO DO SO:

- Immediately call 911.

The following information, if known, should be provided to the 911 operator:

- a. Building address, location of the active shooter or his/her last known location.
- b. Number of shooters, if more than one.
- c. Physical description of shooter(s).
- d. Name/identity of the shooter(s) (e.g., employee).
- e. Number and type of weapons held by the shooter(s).
- f. Number of potential victims at the location.
- g. If explosions were heard.

*Note: If you cannot speak, leave the line open and allow the dispatcher to listen.

- Notify the designated building personnel (e.g., fire safety director or building owner).
- Turn on house lights.
- Visitors normally do not use escape routes that are unfamiliar to them. You need to make sure all emergency exits are clearly posted and utilized in the emergency.
- If there is a Fire Safety Director or any EAP staff on duty, follow their instruction for evacuation. If there is no Fire Safety Director or any EAP staff in charge, help the occupants to evacuate to a safe area.
- **Manual Fire Alarm System should NOT be activated for an active shooter emergency.** The manual pull stations should only be activated during fire or smoke conditions.
- If you are outside, you should report to your assigned evacuation assembly area and be prepared to assist guests to remain calm while they relocate friends and family members.
- Cooperate with the first responders.

Interacting with Police Officers

During an active shooter emergency, the FDNY normally will not be in the building to direct the required actions. The police officers will respond to the 911 call immediately and go directly to the building. Police officers will proceed directly to the last known location of the active shooter.

As a place of assembly safety personnel, you should expect:

- Police officers may wear regular patrol uniforms or external bulletproof vests, Kevlar helmets, and other tactical equipment.
- Police officers may be armed with rifles and shotguns in addition to their handguns.
- Police officers may shout commands, and may order individuals to the ground for their safety.

You may need to quickly provide the police officers with the following information, if known:

- Location of the active shooter or his/her last known location.
- Number of shooters, if more than one.
- Physical description of shooter(s).

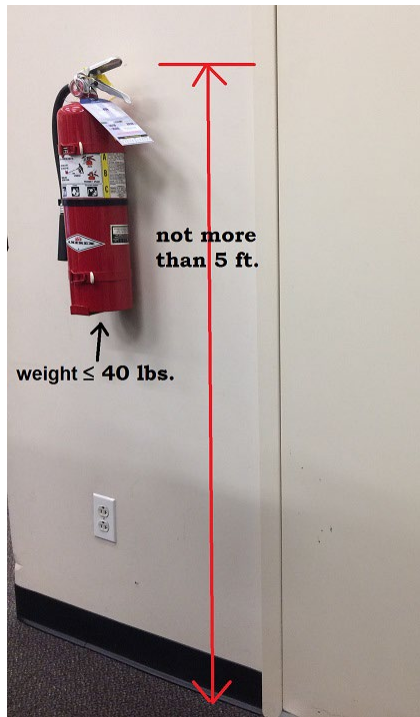
- Name/identity of the shooter(s) (e.g., employee).
- Number and type of weapons held by the shooter(s).
- Number of potential victims at the location.
- The special design of the building (are there open space interior partition materials, etc.)
- Unique tenants (high profile occupants, political officials, armed security, or disabled person, etc.)
- If explosions were heard.

The police officers may request you or other safety personnel to operate and control the building systems to assist in isolating the shooter. It is critical for you to follow orders of the police officers.

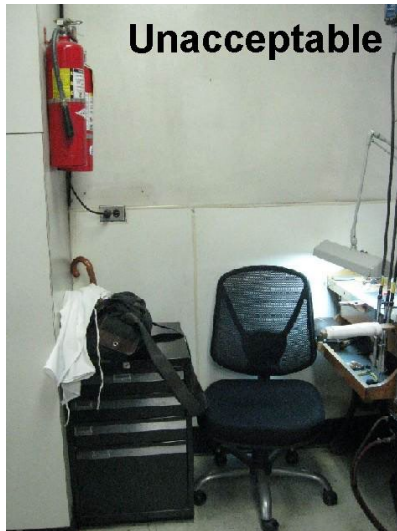
Remember that the first police officers to arrive on the scene may not stop to help injured persons. Expect teams comprised of additional officers and emergency medical personnel to follow the initial responding officers. These teams will treat and remove any injured persons from the areas that have been cleared by the first responding police officers. They may also call upon able-bodied occupants to assist in removing the wounded from the premises.

6. PORTABLE FIRE EXTINGUISHERS

The Certificate of Fitness holder must be familiar with the use of the fire extinguisher. All fire extinguishers must be installed so that the top of the extinguisher is not more than 5 ft above the floor and the clearance between the bottom of the extinguisher and the floor is not less than 4 in. In other words, **no fire extinguisher is allowed to be on the floor.**



← A stackable and portable stand is convenient for temporary installation.



- (1) The top of the fire extinguishers must not be more than 5 ft above the floor.
- (2) The fire extinguishers must be accessible and unobstructed.

The bottom of the extinguisher must be at least 4 in above the floor.

1. HOLD EXTINGUISHER UPRIGHT AND PULL THE RING (SAFETY) PIN



2. STAND BACK FROM THE FIRE AND AIM AT THE BASE OF THE FIRE NEAREST YOU



3. SQUEEZE HANDLES TOGETHER AND SWEEP THE EXTINGUISHER STREAM SIDE TO SIDE



REMEMBER THIS SIMPLE WORD -
P A S S
PULL AIM SQUEEZE SWEEP

In the event of a fire extinguisher has been discharged, a fully charged replacement is required before work can resume. **The C of F holder is recommended to be trained for the use of portable fire extinguisher.** 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. **The trained Certificate of Fitness holders should only consider extinguishing fires when they are limited in size and spread such that they can readily be extinguished using a portable fire extinguisher.** 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 case of any fire, FDNY must be notified. 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 just remember the acronym P.A.S.S. to help make sure you use it properly.

P.A.S.S. stands for Pull, Aim, Squeeze, Sweep.

The Certificate of Fitness holder must be familiar with the different types of fire extinguishers available at the work site. The Certificate of Fitness holder must know how to operate the extinguishers in a safe and efficient manner. The Certificate of Fitness holder must also know the difference between the various types of extinguishers and when they may be used. An example of these instructions is depicted in the picture.

Class A fires are caused by ordinary combustible materials (such as wood, paper, and cloth). To extinguish a Class A fire, these extinguishers utilize either the heat-absorbing effects of water or the coating effects of certain dry chemicals.

Class B fires are caused by flammable or combustible liquids and gases such as oil, gasoline, etc. To extinguish a Class B fire, the blanketing-smothering effect of oxygen-excluding media such as CO₂, dry chemical or foam is most effective.

Class C fires involve electrical equipment. These fires must be fought with fire extinguishers that do not conduct electricity. Foam and water type extinguishers must not be used to extinguish electrical fires. After shutting off the electrical equipment, extinguishers for Class A or B fires may be used.

Class D fires are caused by ignitable metals, such as magnesium, titanium, and metallic sodium, or metals that are combustible under certain conditions, such as calcium, zinc, and aluminum. Generally, water should not be used to extinguish these fires.

Class K fires are fires that involve vegetable oils, animal oils, or fats in cooking appliances. This is for commercial kitchens, including those found in restaurants, cafeterias, and caterers.






A multi-purpose dry chemical fire extinguisher may be used to extinguish multi-classes fires. Examples of some fire extinguishers are shown below.













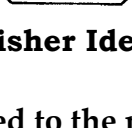
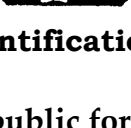
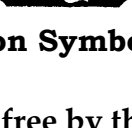
Examples of fire extinguishers



6.1 Typical Fire Extinguishers

Symbols may also be painted on the extinguisher. The symbols indicate what kind of fires the extinguisher may be used on. Examples of these symbols are shown below. The symbol with the shaded background and the slash indicates when the extinguisher must not be used. The Certificate of Fitness holder must understand these symbols. All fire extinguishers should be kept in good working order at all times.

CLASSES OF FIRES	TYPES OF FIRES	PICTURE SYMBOL
A	Wood, paper, cloth, trash & other ordinary materials.	
B	Gasoline, oil, paint and other flammable liquids.	
C	May be used on fires involving live electrical equipment without danger to the operator.	
D	Combustible metals and combustible metal alloys.	
K	Cooking media (Vegetable or Animal Oils and Fats)	

			Class A, B & C Fires Multi-purpose Fire Extinguisher
			
			Class B & C Fires
			Class A & B Fires
			Class A Fires

Fire Extinguisher Identification Symbols

6.2 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.

6.3 Portable Fire Extinguisher (PFE) Tags

Installed portable fire extinguishers must have an FDNY standard PFE tag affixed. This tag will have important information about the extinguisher. By November 15, 2019, all portable fire extinguishers must have the new PFE tags. The FDNY will only recognize new PFE tags and will be issuing violations to business that have PFE installed without a proper tag.

The color of the fire extinguishers may be changed by the FDNY every few years. The FDNY recommends two ways to verify the tag's legitimacy:

1. Hologram:

A real hologram strip shown on the tag is 3 inches long by ¼ inch wide. Counterfeit tags will NOT have a high-quality silver hologram. The hologram on a counterfeit tag will NOT change color as it is moved against the light.

2. QR code

IF you scan the QR code, it should direct you to the updated FDNY approved fire extinguisher company list. You can use the company list to verify if the company printed on the list is currently approved by the FDNY.

If your PFE tags cannot be verified via these two methods, contact your supervisor. If you suspect your PFE is a counterfeit, contact FDNY immediately by e-mail:

Tags.Decal@fdny.nyc.gov



PFE tag (This tag is released for 2021-2023)

Tag colors and year will change every few years for security purposes

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

Fire Department also issues standard outdoor fire extinguisher tags. If the fire extinguishers may be placed outdoors, the COF holder should ask the fire extinguisher suppliers to provide the outdoor fire extinguisher tags for the fire extinguishers.

The special features of the outdoor tags:

1. The material is durable and tear resistant.
2. Different printings:
 - On the back of the tag, the series number will contain a “D” letter; AND/OR
 - On the front of the tag, an “O” is printed on the top of the tag (this feature may not be on ALL outdoor tags)



Outdoor PFE tags

7. 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).  Intertek

- 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

Please be advised these guidelines are for residential occupancies. If you encounter a situation in a public assembly, you MUST notify your supervisor. Move yourself and any occupants to a safe location and call 911.

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.

