

**FIRE DEPARTMENT • CITY OF NEW YORK**



# **REMEDIAL FLSD\_FIRE COMPONENT**

## **R-58**

# **STUDY GUIDE**

This publication is provided free to the public by the New York City Fire Department.

***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>

**Note:**

This R-58 exam is only subject to candidates who

- (1) currently hold one or more Certificate(s) of Fitness for Fire Safety Director (F-89/T-89/F-85) AND**

(2) who failed two or more important responses for the **Fire Component** (FSD) of the On-Site Exam **for certification at an additional work location.**

You have to take the R-58 exam if you receive the Notice of Failure requiring you to take this exam. However, **you are NOT subject to the R-58 exam if you surrender all your F-89/T-89/F-85 cards to be inactive.**

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**Release 1.0 – This guide will be updated periodically. Please check the FDNY website to see if there is a newer version before your test date.**

## **NOTICE OF EXAMINATION**

TITLE: REMEDIAL FIRE AND LIFE SAFETY DIRECTOR  
\_FIRE COMPONENT (R-58)

***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 WRITTEN EXAM**

Applicants who need to take the exam must apply in person and bring the following documents:

1. **Identification.** Applicant must provide two forms of identifications; at least one form of identification must be government issued photo identification, such as a State-issued Drivers' License or Non Driver's License or a passport.
2. **Letter of Recommendation.** Applicants must present a letter of recommendation from his/her employer. The letter must be on official letterhead, and must state the applicant's full name, experience and the address where the applicant will work. If the applicants are self-employed or the principal of the company, they must submit a notarized letter attesting to their qualifications. For more info:
  - Sample of recommendation letter:  
<http://www1.nyc.gov/assets/fdny/downloads/pdf/business/cof-samplerec-letter.pdf>
  - Sample of self-employed letter:  
<http://www1.nyc.gov/assets/fdny/downloads/pdf/business/cof-sample-selfrec-letter.pdf>
3. **A-20.** Applicants must present a completed application for certificate of fitness (A-20 Form).  
<http://www1.nyc.gov/assets/fdny/downloads/pdf/business/cof-application-form.pdf>
4. **Without Required Documentation.** Applicants not currently employed may take the exam without the required documentation. If the applicants pass the exam, FDNY will issue a temporary letter with picture for the job seeking purpose. The C of F card will not be issued unless the applicants are employed and provide all of the required documentation. *(Exception: If COF has a school requirement, applicant will not be allowed to take COF exam until school is completed.)*
5. **Special requirements for the: R-58 exam:**
  - (1) Applicants must bring ALL their current F-89/T-89/F-85 Certificate of Fitness cards and submit them to FDNY with their A-20 application form.
  - (2) Applicants must bring the Notice of Failure from the Fire Department.

## 6. **APPLICATION FEE:**

Pay the **\$25** application fee in person by one of the following methods:

- Cash
- Credit card (*American Express, Discover, MasterCard, or Visa*)
- Debit card (*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 C of F 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

## **EXAM INFORMATION**

The **R-58** exam will consist of **20** multiple-choice questions, administered on a "touch screen" computer monitor. It is a time-limit exam. Based on the amount of the questions, you will have **30** minutes to complete the test. A passing score of at least 70% is required to demonstrate to the Department that you have the basic Fire Safety Knowledge for serving as a Fire and Life Safety Director.

Call (718) 999-1988 for additional information and forms.

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-r58-noe-study-materials.pdf>

### **If You Pass the R-58 Examination**

If you pass the remedial examination within the time period allowed in the Notice of Failure, you may submit a request to re-take the FLSD on-site examination for the work location for which you desire certification.

### **If You Fail the R-58 Examination**

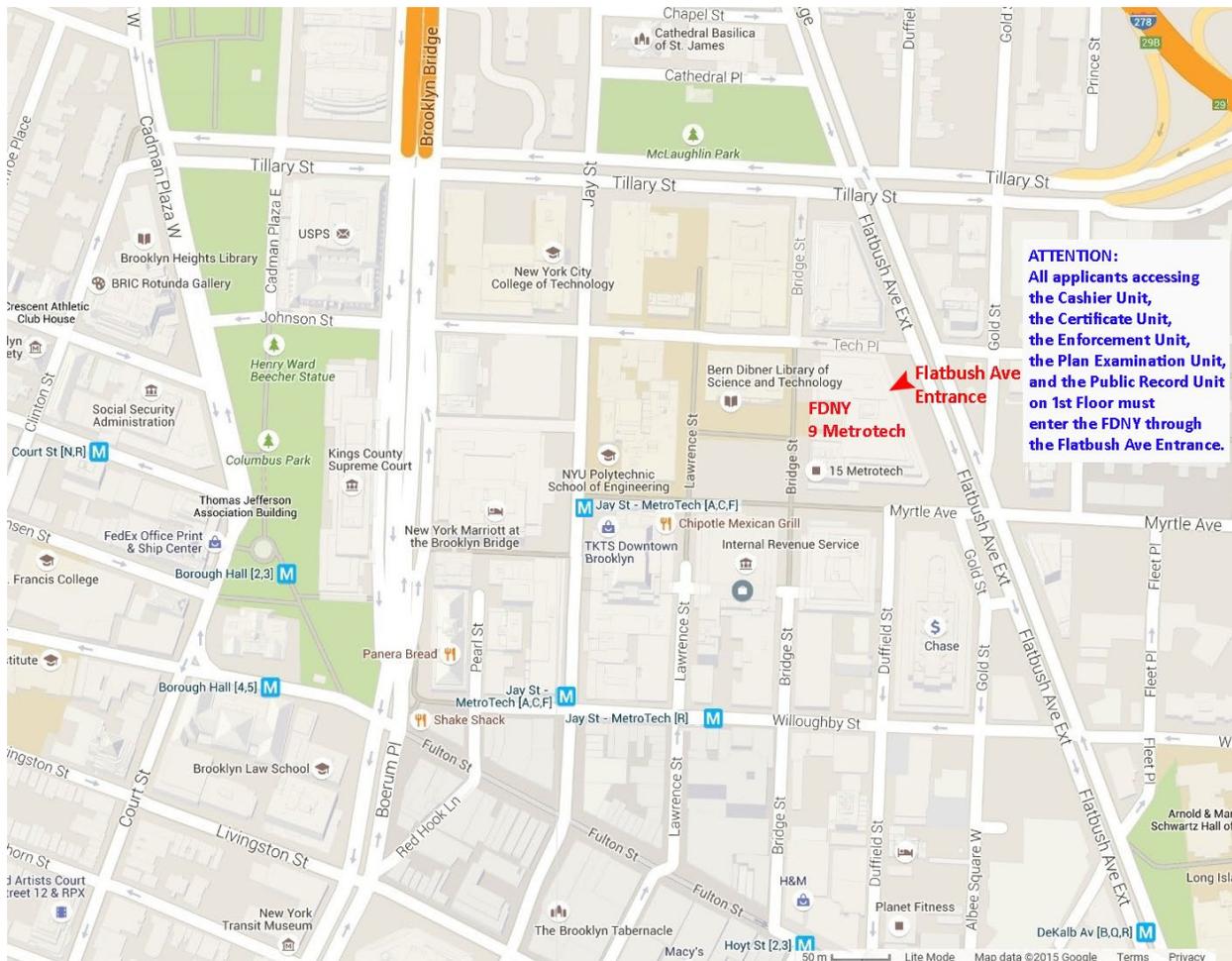
If you fail the remedial examination, all current F-89/T-89/F-85 Certificate(s) of Fitness (at all locations) will be suspended. And you are NOT allowed to take ANY on-site exam unless you fulfill the following steps:

1. You have to complete the 31-hr FLSD courses from an FDNY approved school

(school list: <https://www1.nyc.gov/assets/fdny/downloads/pdf/business/2018-certified-schools-for-fire-and-life-safety-director.pdf>);

2. You have to pass two FLSD computer-based exams: the Fire component (FSD) and the Non-Fire component (EAPD), AND

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



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## Chapter 1. INTRODUCTION

The R-58 booklet focuses on the topics listed below.

- FLS Director and other FLS staff duties
- FLS Director responsibilities in fire emergencies

These topics cover the primary knowledge of the FLS staff required duties during a fire incidence. This R-58 booklet is intended to introduce you to the topic areas that will be covered on the R-58 Examination. It is just a general overview of the topic areas and is not intended to be a comprehensive guide. In addition to reading this study guide, you should re-read the FLSD booklet in its entirety to obtain additional knowledge to pass this exam and the FLSD on-site exam. The FLSD booklet is available on the link below:

<http://www1.nyc.gov/assets/fdny/downloads/pdf/business/fire-and-life-safety-director-FLSD-curriculum.pdf>

The study guide does not contain all the information you need to know in order to work efficiently and safely while acting as a Fire and Life Safety Director. It is your responsibility to become familiar with all applicable laws, rules and regulations of the federal, state and city agencies having jurisdiction, even though such requirements are not included in this study guide. You need to be familiar with the National Fire Protection Association (NFPA) rule book and applicable sections of the New York City Fire Code in order to adequately prepare for this exam. You must also be able to understand and apply the rules and procedures contained in this study guide to help increase your chances of receiving a passing score.

## Chapter 2. FIRE ALARM CONTROL PANELS AND SIGNALS

### 2.1 Fire alarm control panel

Fire alarm control panel (FACP) is a system component that monitors inputs and control outputs through various circuits. The primary purpose of the FACP is to process signals received from initiating devices and to activate appropriate signals and outputs. **Only persons holding an FLS Director C of F are allowed to operate and address alarms and signals at the fire alarm control panel during business hours.**



### 2.2 Fire Alarm Signals

A signal initiated by a fire alarm initiating device such as a manual fire alarm pull station, smoke detector, water-flow switch, or other device (e.g. fire pump) in which activation is indicative of the presence of a fire or fire situation.

When a fire alarm signal is generated, the FACP activates the building audible and visual devices connected to the fire alarm (i.e. horn/strobes), sends a signal to an FDNY approved central station, and actuates control of certain building functions. When they receive fire alarm signals, operators at the central station call the FDNY dispatch and re-transmit the information during the conversation with the Fire Department.

The operator must also notify the premises after calling the Fire Department. Alarm signals transmitted to the Fire Department must indicate the type of alarm received (e.g., automatic, valve, manual, or carbon monoxide).

If a fire alarm signal is generated, the FLS Director must treat it as a fire/smoke emergency and perform the required duties and responsibilities (refer to Chapter 4 of this booklet).

### 2.3 Supervisory Signals

A supervisory signal indicates that a system or device being monitored has been compromised or is in an abnormal state. Supervisory devices are commonly installed as part of some protection systems. The supervisory devices monitor important parts of the system. A supervisory signal will

audibly and visually annunciate at the FACP to indicate the supervisory condition which needs to be investigated and corrected. For example, a signal will be sounded when a control valve is closed or in the wrong position. This type of signal is commonly called a supervisory signal. The signal is always transmitted to the FACP.

When a supervisory condition is indicated, the FLS Director should check the system in order to identify the part of the system that caused the signal. Then that part of the system should be identified and dealt with accordingly. If the FLS Director cannot identify the problem or notice any malfunction, the FLS Director must contact the contractor to investigate and fix the problem(s). The supervisory signal will be transmitted to an FDNY approved central station as well.

Some FACP's indicate the exact location of the problem. Other FACP's only display a general supervisory signal. For example, an older FACP might only indicate the type of the device but not necessary the exact location of the problematic device. Each supervised device must then be inspected to determine which part is causing the signal.

Supervisory signals are generated from supervisory devices such as:

1. Control valves - i.e. sprinkler system tamper switches (supervised for off-normal conditions).
2. Low air pressure switch - supervised for air pressure in dry pipe sprinkler/standpipe system.
3. High/Low water level switch on a gravity tank - supervised for high/low water and temperature.
4. Electric fire pumps - supervised for pump running, pump failure, and phase reversal.
5. Air pressure in the pressure tank.

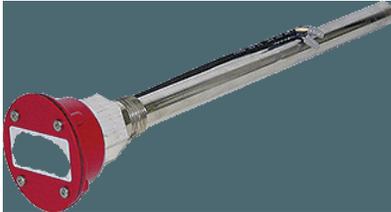
**Note: The FDNY is not dispatched to respond to supervisory signals. Supervisory signals are not indicative of a fire condition.**



Pressure Supervisory  
Switch



Tank Water Level Supervisory Switch



Temperature Supervisory  
Switch



Tamper switch on a sprinkler valve

## 2.4 Trouble signals

Fire Alarm Control Panels (FACP) are provided with means to detect and signal trouble conditions. Trouble signals indicate that the alarm system, transmitter, or communications path is wholly or partially out of service. Common trouble conditions monitored by an FACP are battery condition, AC failure, ground fault, open or short circuit on a wire, phone line failure, or internal component failure.

Upon receipt of trouble signals or other signals pertaining solely to equipment maintenance of an alarm system, the central station will communicate with persons designated by the subscriber (e.g. FLS Director).

A trouble signal will ordinarily annunciate audibly and visually at the FACP to indicate the trouble condition, which needs to be investigated and corrected.

**Note: The FDNY is not dispatched to respond to trouble signals. Trouble signals are not indicative of a fire condition.**

If a trouble signal is generated, the FLS Director must investigate and ensure the situation has been corrected. The FLS Director should contact the contractor to fix the problem(s).

## **2.5 In the case any fire alarm, supervisory or trouble signal is generated**

### **2.5.1 Acknowledge switch or button**

An acknowledge button ( also abbreviated as ACK) is used to acknowledge alarm, trouble, or supervisory conditions. The sequence and procedures may differ in every fire alarm system; however, it is important for the FLS Director, when present and practical, to report to the FACP location whenever the alarm is activated. Pressing acknowledge may identify the device or zone in alarm, if not already identified on the FACP.

### **2.5.2 Alarm silence switch or button**

The alarm silence switch is used to silence the building audible and visual devices (such as sirens, bells or gongs) after an evacuation is complete while the source of alarm is being investigated.

**Never silence or reset the fire alarm system until the condition is verified by FDNY personnel.**

Depending on the configuration of the alarm system, this function will either silence the system's notification appliances completely or will silence only the audible alarm, with strobe lights continuing to flash. However, the silence switch does not prevent a signal from being transmitted to an FDNY approved central station. Audible silence allows for easier communication for emergency responders while responding to an alarm.

### **2.5.3 System reset switch or button**

This switch is used to reset the fire alarm system after an alarm condition has been cleared. All initiating devices should return to normal condition after being manually reset. If an initiating device is still in alarm after the system is reset, such as smoke detectors continuing to sense smoke or a manual pull station still in an activated position, another alarm will be generated. Most trouble and supervisory conditions will clear automatically when conditions are returned to normal. After a fire alarm is reset, the fan usually requires restarting from a separate "fan restart" button or key switch.

An FACP indicating an alarm signal cannot be reset to “normal” if the device or devices signaling the alarm to the FACP have not returned to “normal” from “alarm”.

**DO NOT SILENCE BUILDING AUDIBLE VISUAL DEVICE OR RESET THE FIRE ALARM PANEL UNTIL THE FIRE ALARM CONDITION HAS BEEN VERIFIED BY FDNY PERSONNEL.**

### **Chapter 3. FLS DIRECTOR AND OTHER FLS STAFF DUTIES**

All FLS staff listed in the FDNY plan must receive initial training from the FLS Director, including FLS brigade members FLS building evacuation supervisor, FLS wardens and deputy FLS wardens, FLS searchers, all critical operation staff, etc. Refresher training in the FDNY plan from the FLS Director is also required for all FLS staff listed in the FDNY plan to maintain their state of readiness.

Upon implementation of the FDNY plan or during the drills, the FLS Director and all FLS staff must identify themselves to building occupants and others by donning a vest, armband, or other form of identification indicating their role.

#### **3.1 FLS Director duties and responsibilities**

The Comprehensive Fire Safety and Emergency Action Plan must designate an FLS Director and Deputy FLS Directors who must hold an FLS Director Certificate of Fitness. The FLS Director must have the following duties and responsibilities:

1. The FLS Director must be present in the building at all times during regular business hours, as defined in the FDNY plan. The FLS Director also must be present in a building having an occupant load of 500 or more persons or more than 100 persons above or below the street level (the lowest level of exit discharge). As part of the FDNY Plan, Fire and Life Safety Director, Deputy Fire and Life Safety Directors, Building Evacuation Supervisors (not required for the Group R-1 buildings), and FLS Brigades must be provided. When the FLS Director is absent during regular business hours, a Deputy FLS Director must be present in the building and must perform the duties of the FLS Director. When a building other than a Group R-1 transient residential building or occupancy is occupied, but the number of

building occupants falls below the level requiring the presence of an FLS Director, the FLS building evacuation supervisor may perform the duties of the FLS Director. The FLS Director must make efforts to ensure that adequate FLS staff is present at the required time and, in the absence of designated staff, must designate interim FLS staff.

2. In the event of a fire, a medical emergency or other non-fire emergency in the building, the FLS Director must
  - report to the Fire Command Center or designated alternative location, if the primary fire command center is compromised;
  - implement such fire safety and/or non-fire emergency actions as are warranted by the circumstances, in accordance with the provisions of the FDNY Plan, the Fire Code, and the Fire Rules;
  - notify arriving emergency response personnel of the nature of the emergency and the response thereto; and
  - comply with the directions of the emergency response personnel and/or other lawful authority.
3. The FLS Director must be fully familiar with the provisions of the FDNY plan and must conduct the FLS staff training and fire and non-fire emergency drills required by the Fire Code. Exception: FLS staff training and fire and non-fire emergency drills may be conducted by a person holding a Certificate of Fitness as FEP coordinator or fire drill conductor under the personal supervision of the FLS Director.
4. The FLS Director must supervise and train the Deputy FLS Director and other FLS staff, including conducting initial and periodic refresher training to maintain the state of readiness of such staff.
5. The FLS Director must select qualified building personnel for the FLS brigade, organize, train and supervise the FLS brigade and be responsible for the state of readiness of the FLS brigade.
6. The FLS Director must immediately report to 911 any (fire and non-fire) emergency and any determination to implement the FDNY plan.

7. The FLS Director must be responsible for a daily check of the availability of FLS wardens and Deputy FLS wardens (if the wardens are required in the premises) and make such notifications or temporary assignments as are necessary to ensure adequate FLS staffing.
8. The FLS Director is responsible for communicating all information and directions to building occupants in the event of fire and non-fire emergency.
9. The FLS Director must approve the content of the drill educational materials provided to building occupants.
10. The FLS Director must ensure that the required notices are posted on the floors and that the required recordkeeping is maintained
11. The FLS Director must review and approve the procedures established by employers of building occupants to account for building occupants after an evacuation, partial evacuation, in-building relocation, or sheltering in place.
12. The FLS Director must notify the owner of any building occupant that neglects or fails to cooperate with the FDNY plan duties, responsibilities, or obligations.

### **3.2 Deputy FLS Director duties and responsibilities**

The Deputy FLS Director must hold an FLS Director Certificate of Fitness.

In the absence of the FLS Director, the Deputy FLS Director must perform the duties of the FLS Director, except that the FLS Director must personally supervise all FLS staff training.

In the presence of the FLS Director, the Deputy FLS Director must assist the FLS Director in carrying out the requirements of the FDNY plan and the Fire Code/Fire Rules.

### **3.3 FLS brigade**

They must perform their designated assignment as set forth in the FDNY plan or as directed by the FLS Director.

FLS brigade members must be on duty during regular business hours. The FLS Director and Deputy FLS Director cannot be designated as FLS brigade members.

In the event of an (fire or non-fire) emergency, FLS brigade members must immediately report to the designated locations, as set forth in the FDNY plan or directed by the FLS Director, to be ready to undertake their designated assignments.

The FLS brigade members are currently separated into two categories: fire safety brigade member and non-fire safety (EAP) brigade member. A person may be designated as both fire and non-fire (EAP) brigade member.

The fire safety brigade members can be different building staff such as building manager, porter, security guard, etc. A sufficient number of fire safety brigade members must be listed to exercise the authority and perform the following duties: implement evacuation of floors control small fires coordinate communications with Fire Command Center, remain on the floor below the fire to provide information to responding firefighters and coordinate assistance to building occupants with special needs.

The non-fire safety brigade members (EAP brigade members) must consist of the building manager, chief engineer, and director of security (or, in their absence, qualified designees), and other building personnel, office employees, or other building occupants designated to assist in the implementation of the FDNY plan, including persons assigned to assist building occupants that require assistance to participate in the plan.

### **3.4 FLS building evacuation supervisor**

This FLS building evacuation supervisor is currently only required in the Comprehensive Fire Safety and Emergency Action Plan for office buildings.

At least one person as an FLS building evacuation supervisor, and qualified to serve in such position, must be present and on duty in the building at all times when an FLS Director is not required to be on duty, but there are occupants in the building. The building evacuation supervisor at such times must exercise the authority and responsibility of the FLS Director to implement the FDNY plan.

In the presence of the FLS Director, FLS building evacuation supervisor should assist the FLS Director in carrying out the requirements of the FDNY plan.

### **3.5 FLS warden and deputy FLS warden**

The FLS wardens and deputy FLS wardens are currently only required in the Comprehensive Fire Safety and Emergency Action Plan for office buildings.

#### **3.5.1 FLS warden**

One FLS warden is required for each floor of the building. FLS wardens must be on duty on each floor during regular business hours for such floor.

The FLS wardens must:

- be familiar with the FDNY plan, including:
- general sheltering in place, in-building relocation, partial and fully evacuation procedures,
- the exit and in-building relocation routes to be utilized for the floor,
- the location of in-building relocation areas;
- the means of communicating with the FLS Director;
- in the event of a fire or non-fire emergency on the floor or immediately affecting building occupants on the floor, notify the FLS Director (through the warden phone) and building occupants on the floor of the (fire or non-fire) emergency and initiate appropriate action;
- in the event of a fire or non-fire emergency not on the floor or not immediately affecting building occupants on the floor, establish communication with the FLS Director (through the warden phone) and, if possible, await direction from the FLS Director;
- keep the FLS Director informed of his or her location and the progress of the implementation of FDNY plan measures;
- confirm the in-building relocation or evacuation of the floor or portion thereof by directing Deputy FLS wardens and/or other FLS staff designated as FLS searchers to search all areas of the floor to be relocated in building or evacuated; to do so by visual inspection, not merely by the lack of a voice response; and to notify any remaining building occupants that they must immediately comply with the applicable FDNY plan procedures;
- determine whether the stairways are safe to enter before directing building occupants to use them, and, if unsafe, notify the FLS Director;
- instruct building occupants not to use elevators in the event of fire; and

- perform such other duties as set forth in the FDNY plan or as directed to do so by the FLS Director.

### 3.5.2 **Deputy FLS warden**

At least one deputy FLS warden is required for each employer of building occupants on a floor. If the floor area occupied by an employer of building occupants on a single floor exceeds 7,500 square feet, a deputy FLS warden must be designated for each 7,500 square feet or portion thereof. No individual deputy FLS warden is allowed to be designated for more than 7,500 square feet of building floor area. At least the minimum required number of deputy FLS wardens must be on duty on each floor during the regular business hours of such employer.

In the absence of the FLS warden, a deputy FLS warden needs to perform the duties of the FLS warden.

In the presence of the FLS warden, deputy FLS wardens are required to assist the FLS warden in carrying out the requirements of the FDNY plan and the Fire Code/Fire Rule, by searching all areas of the floor to be relocated in building or evacuated, and notifying any remaining building occupants that they must immediately comply with the applicable FDNY plan procedures, and - performing such other duties as assigned by the FDNY plan or directed by the FLS warden.

### **3.6 FLS searchers**

The FLS searchers are currently only required in the Comprehensive Fire Safety and Emergency Action Plan for office buildings.

At least one male and one female FLS searcher are required for each employer of building occupants on a floor. Such FLS searchers must be on duty on each floor during the regular business hours of such employer

In the absence of the deputy FLS warden, the FLS searcher must perform the duties of the deputy FLS deputy warden.

In the presence of the deputy FLS warden, the FLS searcher must assist the FLS warden in carrying out the requirements of the FDNY plan and the Fire Code/Fire Rules, by searching all areas of the

floor to be relocated in building or evacuated, notifying any remaining building occupants that they must immediately comply with the applicable FDNY plan procedures, and performing such other duties as assigned by the FDNY plan or directed by the FLS warden.

### **3.7 Critical operations staff**

The critical operations staff is currently only required to be listed in the Comprehensive Fire Safety and Emergency Action Plan for office buildings.

Critical operations staff are the building personnel or other building occupants designated to remain after the FDNY plan is implemented to perform or shut down critical operations, or perform essential services, before they shelter in place, relocate in building or evacuate. Such staff must be designated based on the critical nature of their duties, either to the operation of the building service equipment or other essential services. The FDNY plan must identify each such individual and the essential service that the individual is required to perform even under emergency conditions. Employers of building occupants may request that the FLS Director designate certain office employees as critical operations staff. Such requests must be granted only if the employer can demonstrate that the employee is performing a public safety function or essential service for the employer in which there is a compelling public interest in maintaining even in the event of an emergency. All requests and designations must be documented in writing and made available for inspection by Fire Department representatives, upon request.

In the event of any (fire or non-fire) emergency, critical operations staff must immediately report to their designated locations as set forth in the FDNY plan or directed by the FLS Director, and undertake their designated assignments.

## **Chapter 4. FLS DIRECTOR RESPONSIBILITIES IN FIRE EMERGENCIES**

### **4.1 Inspection and prevention of fires**

The FLS Director must ensure that the building's fire protection systems and other equipment and operations affecting building fire safety are inspected, tested and maintained periodically by qualified personnel (e.g. qualified Certificate of Fitness holder, etc.). Daily visual inspection of the Fire Command Center has been the industrial practice and is highly recommended by the Fire Department. The purpose of the visual inspection is to detect defective components or abnormalities.

The FDNY recommends that the FLS Director should perform a visual inspection daily. If any problem is found, the FLS Director must have the defect(s) corrected.

**(a) Inspect all exits, stairways, and hallways to determine condition and availability for use.** All exits, stairways, and hallways must be kept free of blockage. Blocking the exit may prevent occupants from leaving the building. Corrections must be made for proper way of exit with doors opening in direction of travel. An exit aisle is generally required to be at least 3 feet wide.

Locks, bolts, and chains must not be installed on the exit doors while the building is in use. If locks are seen they **must** be removed immediately.

**(b) Check all the doors in the affected areas to see operation conditions and availability for use.** Close attention must be paid to the stairways and areas where fire doors are installed. Exits into the stairway must be available from each floor of the building. Usually, a panic bar is installed on the door. The panic bar allows the occupants to quickly exit from the premises in case of an emergency. The FLS Director must ensure that the fire doors exist, and are in good working order.

**(c) Ensure that self-closing doors are not blocked and are closed at all times (when not in use).** The FLS Director must ensure that all self-closing doors are not left open for any reason. Self-closing doors are made to slow down the spread of fire during emergency. These doors must be marked with a sign stating that they are self-closing doors. All self-closing doors in the building must be kept in good working order. They must be checked to make sure that they may be opened and closed freely.

- (d) **Ensure that exits are properly labeled, and hallways and stairways are lit.** Emergency lighting must be provided for exits. Directional signs must clearly show the path to exit. Exit signs posted above doors and emergency lighting must be lit.
- (e) **The entire location must be checked daily for ignition sources.** Any likely ignition sources that are found must be immediately fixed or removed. For example, arcing or exposed electrical wiring should be reported.
- (f) **Smoking is prohibited.** The Smoke Free Air Act of 2002 bans smoking in most workplaces, including bars, restaurants, clubs, offices, and other public areas. The FLS Director must enforce the no smoking rules.
- (g) **Constantly inspect premises for buildup of rubbish.** Trash and garbage must not to be allowed to accumulate inside the building. Accumulated trash is a fire hazard. It may be easily ignited by a stray spark. All trash and garbage must be removed from the premises or building owner must be promptly notified.
- (h) **Ensure fire extinguishers and fire alarm pull stations are readily available.** All fire extinguishers and pull stations must be clearly visible and easily accessible.
- (i) **Hot work operation may be prohibited.** The FLS Director must know that no hot work operation is allowed in areas of a building **where the sprinkler system is impaired.**

The FLS Director must be aware of any change of building system that may impact fire safety.

#### **4.2 Occupants with disabilities and special needs**

The FDNY plan must specify the procedures for identifying occupants who require assistance, and the procedures for providing such assistance. The list of occupants who have requested assistance must be prepared and maintained at the Fire Command Center.

In the event of fire/smoke situation, FLS Director should notify the designated personnel to assist the disabled individuals.

### **4.3 Implementation of fire safety and evacuation procedures**

In the event of a fire or smoke condition, the FLS Director must ensure that 911 is called immediately and state the determination of implementing the FDNY plan. If arson (i.e. intentionally damaging the property of another without consent of the owner by intentionally starting a fire or causing an explosion) has occurred or is about to occur, the FLS Director must also call the police (911).

When notifying 911 of a fire or other emergency, the call-taker will need to obtain certain information about the emergency. The nature of the emergency and address are the most critical pieces of information. The operator may also ask what the nearest cross-streets are, and if anyone is in need of medical attention and if so, what are their symptoms. Additionally, if responsible for a very large premises, it is likely that there will be more than one means of entry. Providing information about which entrance would provide the most direct access to the emergency area would be helpful in getting the emergency response personnel to the area of the emergency as quick as possible. The more information the caller has available to communicate to the 911 operator, the quicker the first responders can reach the premises.

When calling 911, in addition to the information mentioned above, the caller should be prepared to answer other 911 operator questions, which may include

- Type of occupancy (e.g. hotel, office building, etc.)
- The phone number the 911 operator can reach the caller
- The nature of the emergency
- Details about the emergency, such as the description of the fire/smoke condition and fire location, if known
- If the FDNY plan has been implemented.

Be prepared to follow any instructions the operator provides. Do not hang up until the operator instructs you to.

#### 4.3.1 **Important information in fire emergencies**

In the event of fire/smoke condition or the activation of a fire alarm, the FLS Director must

- immediately report to the Fire Command Center
- acknowledge the alarm (if applicable) . Press the acknowledge button may identify the device or zone in alarm, if not already identified on the Fire Alarm Control Panels.
- address the alarm panel to verify the location and which initiating device(s) is/are activated:
  - manual pull station
  - smoke, beam, duct detectors
  - heat detectors
  - water-flow device
- ensure all the elevators are recalled
- communicate with FLS staff: contact FLS wardens who are located on the floor(s) with fire alarm activities or direct the FLS brigade members to obtain the following information:
  - (1) Location of the fire (floors and areas on floors)
  - (2) Severity of the fire/smoke condition
  - (3) Floors affected by smoke conditions
  - (4) Stairways affected by smoke conditions
  - (5) Floors occupied at the time of the fire and the number of building occupants in such areas

These factors must be expeditiously determined and considered in implementing the fire safety and evacuation procedures in the event of a fire in the building. The primary communication must be made verbally. Text or email should not be used as the primary method of communication for fire emergencies.

#### 4.3.2 **Implementation procedures**

- (1) Mobilize FLS brigade members/FLS wardens and other FLS staff

The FLS Director needs to assign the FLS brigade members the following duties:

- Assist in the evacuation/relocation of the floors with fire alarm activities (i.e. the affected floors) to at least 3 floors below from their current floor or consistent with the FDNY plan;
- Control small fires by using fire extinguishers or closing doors (if safe to do so);
- Maintain communication with the FLS Director and follow the FLS Director's instructions;
- Instruct at least one brigade member to report to the floor below the fire to meet the fire-fighters.

The FLS Director needs to assign the FLS wardens and deputy FLS wardens the following duties:

- Assist in the evacuation/relocation of the floors with fire alarm activities (i.e. the affected floors) to at least 3 floors below their present location or consistent with the FDNY plan;
- Maintain communication with the FLS Director after the relocation/evacuation and follow the FLS Director's instructions.

(2) Identify stairway(s)/stairwell(s) for evacuation/relocation of building occupants and stairway(s) for use by responding firefighting personnel.

If any stairway door is locked, the FLS Director must ensure every door is openable during the fire emergency. For example, ensure all the fail-safe devices have been released. The FLS Director must identify a stairway for firefighting personnel access. He/she must also help maintain a clear path from the lobby to the stairway access.

The FLS Director also must identify the stairway for building occupants to use. Fire tower stairway should be given priority for building occupants to use for evacuation/relocation.

(3) Make announcement(s) to building occupants informing them of the fire condition and its location. Instruct them not to use elevators unless directed to do so by firefighting personnel.

(4) Instruct building occupants on the fire floor(s), the floor above, and the floor below (if applicable) the fire floor to immediately leave these floors, and evacuate the building or relocate to another safe location within the building at least three (3) floors below their present

location or evacuate the occupants consistent with the FDNY plan. Identify the stairways(s) or other routes of egress for their use and direct them to use only those stairways(s) or routes of egress. Instruct building occupants to close stairway doors behind them.

- (5) Building occupants may be instructed to exit the stairway at a designated floor if the stairway is needed for responding firefighting personnel.
- (6) Instruct brigade members to assist building occupants with special needs who are unable to use the stairways or other designated route of egress without assistance.
- (7) Unless fire and smoke conditions warrant otherwise, instruct building occupants on floors with no fire alarm activities (i.e. unaffected floors) to shelter in place and not move around the building, pending further direction from the FLS Director or firefighting personnel.
- (8) Monitor the progress of the fire and smoke conditions by monitoring the fire alarm control panel and maintaining regular communication with FLS staff.
- (9) Ensure the HVAC system has been shut down. Consult with the building engineer (if applicable).

#### **4.3.3 Use of Elevators**

In the event of fire/smoke condition or the activation of a fire alarm, the FLS Director must ensure that the elevator Phase I operation has been activated automatically or manually. In general, the activation of any automatic fire detection system device will automatically recall the elevators. However, activating the manual fire alarm pull station will not initiate the elevator Phase I operation automatically.

Elevators must not be used to implement the fire safety and evacuation plan except under the following circumstances:

- Where such use is conducted or authorized by firefighting personnel.
- Where such use is made necessary by fire, heat, or smoke conditions in stairways preventing or hindering the evacuation or in-building relocation of building occupants, and the FLS Director or deputy FLS Director determines that the elevators can be safely used, subject to the following provisions:

- Elevators which operate in a shaft that does not serve (stop at) the fire floor or have openings on the fire floor may be used. Elevators serving (stopping at) the fire floor or having openings on the fire floor must not be used under any circumstances.

Note: Very tall high-rise buildings may have blind shafts in which elevators serving upper floors pass many floors without door openings. An example of a blind elevator shaft: there is a hoist-way door on the first floor and not another one until upper floors.

- Only elevators provided with two-way voice communication to the Fire Command Center in accordance with Building Code requirements may be used for these purposes.
- Movement of elevators must be controlled either by operation in manual mode by an FLS staff member or at the elevator control panel in the lobby, under the direct supervision of the FLS Director.

#### **4.4 Interaction with the Fire Department during fire incidents**

The FLS Director, all other FLS staff, and building occupants must comply with the orders of FDNY personnel. The lobby and the building entrance must be kept clear for the FDNY access. When the Fire Department arrives, the FLS Director must remain on the Fire Command Center to greet FDNY personnel, at least one fire brigade member should be remained on the floor below the fire floor to provide information to FDNY personnel, and the Building Engineer should be available and prepared to follow FDNY personnel's instructions.

FLS Director should silence the fire alarm system when authorized by FDNY personnel. Audible silence allows for easier communication for FDNY personnel while responding to an alarm.

FLS Director is required to notify arriving FDNY personnel and other first responders of the nature of the emergency and the actions already taken. FLS Director should also provide the following materials to FDNY personnel:

- Floor plans

- Building Information Card (BIC)
- FDNY Plan
- Elevator and stair diagrams
- Elevator keys
- Any other master keys/access cards that may be required
- Premises security radios/walkie-talkies

FLS Director, may need to quickly provide FDNY personnel with the following information, if known:

- Location of the fire or alarm
- The nature of the alarm (what cause the alarm)
- The conditions on the fire floor and floor above (including smoke condition)
- The status of the stairways (stairway being used by occupants and stairway suggested to be used for FDNY personnel, location of the standpipe risers)
- Evacuation/relocation status
- Status of elevators and HVAC system
- The location of the evacuated/relocated people
- Any problems with the evacuation/relocation
- Number of potential victims at the location
- Any people unaccounted for
- Any problems reported to you
- Any impairment of the fire protection system

It is critical for the FLS staff to follow orders of FDNY personnel. The FDNY personnel may request assistance of the FLS Director and other FLS staff to operate and control the building systems.

FLS Director required to silence and reset the fire alarm system when he or she are authorized by the Fire Department and the condition has been cleared.

## Chapter 5: 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](http://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](http://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.

