#### FIRE DEPARTMENT • CITY OF NEW YORK



#### STUDY MATERIAL FOR THE

#### CERTIFICATE OF FITNESS EXAMINATION

F-01

Fire Guard for Impairment (Citywide)

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.fdnycloud.org/CitizenAccess

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

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# EXAM SPECIFIC INFORMATION FOR F-01 CERTIFICATE OF FITNESS

# Save time and submit applications 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:

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# 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-01 Certificate of Fitness: None

# Application fee (Cash is NO LONGER ACCEPTED):

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

- Credit card (American Express, Discover, MasterCard, or Visa)
- Debit card (MasterCard or Visa)
- In person: 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

# 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-01 test consists 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  $\underline{30}$  minutes to complete the test. A passing score of at least 70% is required in order to secure a Certificate of Fitness.

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-f01-noe-study-materials.pdf

# Additional important notice:

- Current **F-92** Certificate of Fitness's are valid and renewable.
- The **F-03**, **F-04** and **F-92** Certificate of Fitness tests are available as separate tests.

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



#### RENEWAL REQUIREMENTS

# General renewal requirements:

Review the General Notice of Exam:

 $\underline{http://www1.nyc.gov/assets/fdny/downloads/pdf/business/general-notice-of-exam-cof.pdf}$ 

Special renewal requirements for F-01 COF: None

The FDNY strongly recommends the F-01 COF holders to renew the COF online. 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 <a href="mailto:FDNY.BusinessSupport@fdny.nyc.gov">FDNY.BusinessSupport@fdny.nyc.gov</a>

#### STUDY MATERIAL AND TEST DESCRIPTION

About the Study Material

This material will help you prepare for the Certificate of Fitness for Fire Guard for Impairment. The study material includes information taken from the New York City Fire Code. This study material consists of 2 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 you pass this exam. The study material <u>does not</u> contain all the information you need to know to work as a fire guard for impairment.

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. To prepare for the exam, you should be familiar with the 2022 Fire Code Sections 401.3, 408, 901 and 906 and the NFPA 25 Chapter 14 (2002 Ed.) which explains the duties of fire guards for performing fire watch when any required fire protection system is out of service.

#### Design and installation provisions.

The design and installation provisions of the 2022 Fire Code applies to:

- Facilities established and having conditions on or after 04/15/2022.
- Facilities and conditions that did not lawfully exist prior to 04/15/2022.

The facilities and conditions lawfully existing prior to the 04/15/2022 can be continued in compliance with the requirements of the former Fire Code/Fire Rule except as otherwise provided in the New Fire Code 102.5.

# Operational and maintenance provisions.

The operational and maintenance provisions of the 2022 Fire Code, including permit and certification requirements, applies to all facilities, operations, conditions, uses and occupancies, regardless of when they were established or arose.

The 2022 Fire Code can be obtained via the following website: <a href="http://www1.nyc.gov/site/fdny/codes/fire-code/fire-code.page">http://www1.nyc.gov/site/fdny/codes/fire-code/fire-code.page</a>

The 2014/2022 New York City Fire Code Cross-Reference Table can be referred to the following website:

http://www1.nyc.gov/assets/fdny/downloads/pdf/codes/fire-code-cross-reference.pdf

#### Sample Questions

The following questions represent the "format" of the exam questions, not the content of the real exam.

- 1. Which of the following are allowed to be used/displayed 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  $\underline{A}$ . You would touch "A" on the computer terminal screen.

- 2. 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  $\underline{D}$ . You would touch "D" on the computer terminal screen.

# 3. 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 You would touch C on the computer terminal screen.

#### INTRODUCTION

This material outlines New York City Fire Department (FDNY) guidelines for the Fire Guard for impairment. Fire guards are required to inspect areas where fire protection systems are out of service.

#### Responsibility of the Building Owner

The building owner or their agent must give the impairment coordinator access to all the necessary documents including records, tests, service and other items relating to maintenance of fire protection systems. Such records must be kept at the location for a period of three years and made available for inspection by any member of the FDNY. In absence of an impairment coordinator the building owner must act as the impairment coordinator.

#### Requirements

In any occupancy, where a required fire protection system is out of service, a fire watch must be maintained. Fire watch can be maintained by one or more persons holding an F-01 Certificate of Fitness for Fire Guard for Impairment. The fire guard(s) is/are required to be immediately available when the system is out-of-service with the following exception:

For the first 4 hours of an unplanned or planned out of service condition when the effected area does not exceed 50,000 square feet, the impairment coordinator or a trained and knowledgeable person who is capable of performing fire watch duties and is designated by the building owner may perform the duties of the fire watch.

The impairment coordinator or a trained and knowledgeable person designated by the building owner must begin conducting a fire watch in the area where the fire protection systems are out-of-service. After 4 hours of an out of service condition, such patrols can only be conducted by fire guards holding the F-01 certificate of fitness.

The number of fire guards depends on the location and the size of the area affected by the out-of-service fire protection system. A fire guard must be available to patrol all areas in which the fire protection system is out of service at least once every hour. No individual fire guard must patrol more than 50,000 square feet of building floor area. If coverage area is over 50,000 sq. ft. more than 1 fire guard must be assigned.

The recommended coverage for doing the fire watch is summarized in the table below.

Planned or Unplanned				
Area	The initial 4 hours	> 4 hours		
≤ 50,000 ft²	A F-01 C of F holder or an Impairment coordinator or a trained and knowledgeable person	One F-01 C of F holder		
> 50,000 ft <sup>2</sup>	One F-01 C of F ho	lder per 50,000 square feet		

The impairment fire guard(s) are required on a 24 hours a day basis. Impairment duties must continue until the systems are restored to good working order. In some cases, Fire Department workers may be on scene to give directions. Such as the number of required fire guards or other fire protection measures that may be required.

# Special requirements for construction sites

The fire watch requirements at construction site will depend on whether the fire protection systems have been installed and approved. No impairment coordinator or fire watch is required before the system is installed and approved, "installed and approved" means that all required approvals for a full or partial installation have been obtained, including all signoffs from the Department of Buildings.

The Construction Site Fire Safety Manager (S-56) must be designated to be the impairment coordinator if any installed and approved fire protection system is out of service. The Fire Guard for impairment must be maintained while the building is occupied. The Fire Department has posted guidance on its website explaining the impairment coordinator, fire watch and hot work requirements when fire protection systems are out of service on construction sites. This guidance is also attached as Appendix A.

The Certificate of Fitness holder must keep the Certificates of Fitness readily available for inspection by any representative of the Fire Department. This must be done at all times while conducting or supervising the material, operation or facility for which the certificate is required.

The fire guard for impairment is recommended to be familiar with the types of fire safety evacuation plans for the buildings where they provide fire watch. They should also be familiar with the associated staff available to implement the fire plan. The fire guard must be aware of his obligations for notifying the Fire Department in the event of fire (**FC Chapter 4 Section 401.3**). Further information is available at:

- Emergency Planning and Preparedness: [FC Chapter 4 Section 401.3 and Section 408]
- Fire Protection System: [FC Chapter 9 Section 901 and Section 906]

#### **DEFINITIONS**

**ALARM NOTIFICATION APPLIANCE.** A fire alarm system component, such as a bell, horn, speaker, light, text display or vibration device that issues an audible, tactile, and/or visual alert.

**ALARM SIGNAL**. A signal indicating an emergency requiring immediate action, such as a signal indicative of fire.

**ALTERATION.** Any addition to, or modification of, an existing installation or facility, other than any repair made in the ordinary course of maintenance.

**APPROVED.** Acceptable to the commissioner.

**AUTOMATIC.** As applied to fire protection devices, any device, equipment or system that initiates emergency system function as a result of a predetermined temperature rise, rate of temperature rise, or combustion products, without the necessity for human intervention.

**CENTRAL STATION.** A facility that receives alarm signals from a protected premises and retransmits or otherwise reports such alarm signals to the department.

#### CERTIFICATE OF FITNESS.

A written statement issued by the commissioner certifying that the person to whom it is issue d has passed an examination as to his or her qualifications or is otherwise deemed qualified to perform one or more of the following duties, for which such certificate is required by this code or the rules: supervise a facility; conduct or supervise an operation; supervise the storage, handling and/or use of a material; or conduct or supervise emergency planning and preparedness activities.

**CONSTRUCTION SITE.** Any location at which a building, structure, premises or facility is undergoing construction, alteration or demolition.

**DEPARTMENT.** The Fire Department of the City of New York.

**EMERGENCY ALARM SYSTEM.** A system to provide indication and warning of an emergency condition involving a release of hazardous materials or other hazardous material incident.

**EXIT.** That portion of a means of egress system which is separated from other interior spaces of a building or structure by fire-resistance-rated construction and opening protectives as required to provide a protected path of egress travel between the exit access and the exit discharge. Exits include vertical exits, exterior exit doors at the level of exit discharge, vertical exit enclosures, exit passageways, exterior exit stairs, exterior exit ramps and horizontal exits, but do not include access

stairways, aisles, exit access doors opening to corridors or corridors. This term shall include the locations on a premises at which egress may be had from an enclosed outdoor space.

**EXIT ACCESS.** That portion of a means of egress system that leads from any occupied portion of a building, structure or premises to an exit.

**EXIT DISCHARGE.** That portion of a means of egress system between the termination of an exit and a public way.

**FIRE.** A rapid, persistent chemical reaction that releases heat and light, especially the burning of a combustible substance in the presence of oxygen. For purposes of this code, a flame used in any lawful, properly operating device, equipment or system or other controlled setting shall not be considered a fire.

FIRE ALARM BOX, MANUAL. A manually operated device used to initiate an alarm signal.

**FIRE ALARM SIGNAL.** A signal initiated by a fire alarm-initiating device such as a manual fire alarm box, automatic fire detector, water-flow switch, or other device whose activation is indicative of the presence of a fire or fire signature.

**FIRE ALARM SYSTEM.** Any system, including any interconnected fire alarm subsystem, of components and circuits arranged to monitor and annunciate the status of fire alarm or supervisory signal-initiating devices.

**FIRE DETECTOR, AUTOMATIC.** A device designed to detect the presence of a fire signature and to initiate action.

**FIRE DOOR ASSEMBLY.** Any combination of a fire door, frame, hardware, and other components that together, as an opening protective, provide a specific degree of fire protection to the opening

**FIRE EXTINGUISHING SYSTEM.** An approved system of devices and equipment that discharges an approved fire extinguishing agent onto or in the area of a fire. The term includes (water-based) sprinkler systems and (water and non-water-based) alternative fire extinguishing systems, as those terms are used in the Building Code. An automatic fire extinguishing system incorporates a device that detects a fire and activates the system. A manual fire extinguishing system does not detect a fire and requires manual activation to discharge the fire extinguishing agent.

**FIRE GUARD:** A person holding a Certificate of Fitness for such purposes, who is trained in and responsible for maintaining a fire watch and performing such fire safety duties as may be prescribed by the commissioner.

**FIRE PROTECTION SYSTEM.** Approved devices, equipment and systems or combinations of systems used to detect a fire, activate an alarm, extinguish or control a fire, control or manage smoke and products of a fire or any combination thereof, including fire extinguishing systems, fire alarm systems and standpipe systems.

**FIRE WATCH:** A temporary measure intended to ensure continuous and systematic surveillance of a building or portion thereof by one or more qualified individuals for the purposes of identifying and controlling fire hazards, detecting early signs of fire, raising an alarm for fire, and notifying the department.

**GENERAL SUPERVISION.** Except as otherwise provided in this code, supervision by the holder of any department certificate who is responsible for performing the duties set forth in FC113.2 but need not be personally present on the premises at all times.

**HOT WORK.** Cutting, welding, thermit welding, brazing, soldering, grinding, thermal spraying, thawing pipe, cadwelding, installation of torch-applied roof systems or any other similar operation or activity.

**HOT WORK AREA.** The area exposed to sparks, hot slag, radiant heat, or convective heat as a result of hot work.

**IGNITION SOURCE.** Anything that can produce enough energy to ignite flammable materials, either inside or outside a building. Ignition sources include hot surfaces, electricity (including static), flames, and sparks.

**IMPAIRMENT:** Any condition in which a fire protection system cannot perform its designed fire safety function. Fire protection systems include sprinkler systems, standpipe/hose systems, fire pumps; fire protection water supplies, fire mains, fire alarm systems, and special extinguishing systems (i.e. clean agent, carbon dioxide, wet/dry chemical, foam/water, etc.).

**IMPAIRMENT COORDINATOR:** The person designated by the owner and responsible for ensuring that proper notification and safety precautions are taken when a fire protection system is out of service.

**INITIATING DEVICE.** A system component that originates transmission of a change-of-state condition, such as in a smoke detector, manual fire alarm box, or supervisory switch.

**LITHIUM-ION BATTERY.** A storage battery in which an electrical current is generated by lithium ions embedded in a carbon graphite or nickel metal-oxide substrate placed in a high-viscosity carbonate mixture or gelled polymer electrolyte.

**MEANS OF EGRESS.** A continuous and unobstructed path of vertical and horizontal egress travel from any occupied portion of a building, structure or premises to a public way. A means of egress consists of three separate and distinct parts: the exit access, the exit and the exit discharge.

**PERMIT.** A written statement issued by the commissioner authorizing the manufacture, storage, handling, use or transportation of a hazardous material, or other material, or to conduct an operation or to maintain a facility, for which a permit is required by this code.

**PERSONAL SUPERVISION.** Except as otherwise provided in this code, supervision by the holder of any department certificate who is required to be personally present on the premises, or other proximate location acceptable to the department, while performing the duties for which the certificate is required.

**PLANNED OUT OF SERVICE CONDITION:** The impairment coordinator shall be made aware in advance of any planned removal from service of a standpipe system, sprinkler system or fire alarm system, or system component, for repair, servicing, testing, maintenance, alteration, or to allow construction to be performed in the area protected by the system without unnecessarily activating it.

**SMOKE ALARM.** A single -or multiple -station alarm responsive to smoke and not connected to a fire alarm system.

**SMOKE DETECTOR**. A listed device that senses visible or invisible particles of combustion.

**UNPLANNED OUT OF SERVICE CONDITION:** Unplanned out of service conditions are serious defects such as empty tanks, breaks or major leaks in the system water piping, inoperative or shut water supply valves, defective fire department connections, etc. which render a standpipe system, sprinkler system or fire alarm system inoperable or otherwise causing it to no longer be in good working order.

#### PART 1. REQUIREMENTS AND DUTIES

Fire guards are required to reduce the threat of fires in a variety of locations. They are trained in and responsible for maintaining a fire watch. Fire guards must have a general knowledge of **portable fire extinguishers and/or alarm pull stations**, including their locations.

An impaired fire protection system presents hazards since detection, notification and extinguishing systems are not working. Individuals and premises cannot depend on impaired fire protection systems to protect them. Individuals often place trust and reliability upon fire protection systems, but non-operational systems cannot provide needed notifications or protection.

The F-01 Certification of Fitness (C of F) authorizes the individual to act as an impairment fire guard to maintain fire watch responsibilities. F-01 C of F is a citywide Certificate. Given this condition, the citywide fire guard for impairment may perform their duties for different buildings and occupancies.

#### 1.1Orientation

When fire guards arrive to the affected area they should be provided with an orientation. The orientation may come from the **fire and life safety director (FLSD)**, **fire safety coordinator**, **construction site fire safety manager**, **building owner**, **impairment coordinator or other on-site personnel**. The person providing orientation must be familiar with and responsible for the buildings fire protection systems.

Normally, there is at least 1 Fire and Life Safety Director in a Group B (Office Building, F-89) or Group R-1 occupancy (Hotel, T-89) building (as described in the following table). The fire guard must work closely with the FLSD (Fire and Life Safety Director).

At most construction sites, there will be at least one Construction Site Fire Safety Manager (or site safety manager/coordinator). The fire guard must work closely with these fire/site safety managers.

If there is no FLSD available in the building, the fire guard should speak to the building owner or the responsible person designated by the building owner to become familiar with the specifics of the building.

FOR ALL BUILDINGS/OCCUPANCIES: Before starting to patrol the affected area, the fire guard should have enough knowledge to identify:

- (1) the entry routes to the affected area;
- (2) the level of the out-of-service condition;
- (3) the location of hazardous materials that are stored, handled or used in the building (including fuel oil storage tanks);
- (4) the location of portable fire extinguishers;
- (5) the means available for the fire guard to make required notifications.

#### a. Hazardous materials

The fire guard must pay attention to the affected area where hazardous materials are stored, handled or used. The fire guard has to ensure the hazardous materials are stored, handled

or used only in the chosen areas. Hazardous material must be stored, handled or used away from any ignition sources.

The fire guard should evaluate the risk of the impairment situation. The risk may be affected by the following:

#### The level of the hazardous materials.

- Flammable liquids are more dangerous than combustible liquids.
- Flammable compressed gas (acetylene or propane) is more dangerous than non-flammable compressed gas.

#### The amount of the hazardous material.

• The maximum quantity of aerosol products in a retail display purpose may be 10,000 pounds for the ground level area. It may be as much as 24,000 pounds per floor in a warehouse.

#### The number of occupants in the affected area.

- It is more difficult to evacuate 1,000 people at a party than 10 people in a warehouse. The occupant's familiarity of the building.
  - The customers in a restaurant may need more assistance in finding the exit than residents in their own apartment.
  - The children in day care facilities may need more assistance in evacuation than adults in a department store.

# The number and location of impaired fire protection systems in the building.

• If a building has <u>both</u> an out of service sprinkler system and fire alarm system, the risk to building occupants is greater than if only one system is impaired.

THE HIGHER THE RISK THE IMPAIRMENT SITUATION PRESENTS, THE MORE ATTENTION TO BUILDING FAMILIARITY THE FIRE GUARD MUST HAVE.

# Orientation Checklist (Example)

List	Mark "x" if yes	Note					
1. Do you have a working cell phone?		If no, you must obtain one before starting your fire watch duty.					
2. Are fire extinguishers provided in my area of responsibility?		If yes, where are they located?  If no, I must carry one fire extinguisher with me.					
3. Are fire alarm pull stations provided and operational in my area of responsibility?		If yes, where are they located?  If no, what procedures will be used to notify the building occupants of a fire?					
4. Do you know the name and contact information of building personnel? (Who needs to be notified upon discovery of building hazards or fire.)		For building related fire safety hazards:  Name: Phone number: For fire situations, refer to the fire notification procedure below.					
5. Information on the extent of out-of-service conditions in my area of responsibility.							
Is the alarm system operational?		If no, what areas are out-of-service?					
Is the sprinkler system operational?		If no, what areas are out-of-service?					
Is the standpipe system operational?		If no, what areas are out-of-service?					
6. Have you been provided with the information regarding the hazardous materials stored on the premises? The type of building occupancy, the characteristics and number of the building occupants? The extent of the fire protection systems in other building areas?		If no, obtain such information before starting your fire watch duty.					
Fire Notification Procedure:							
<ul> <li>Call 911 or the Fire Department dinumber is</li> <li>Notify the building occupants by</li> </ul>	number is						
	e safety di	rector or building owner). Their phone					
Name		Phone number					

#### 1.2 Fire Guard Patrols

Buildings and their parts that have out-of-service fire protection system must be constantly patrolled and checked. The entire building must be checked at least once every hour.

The fire guards need to make regular inspections of the assigned area. They cannot be given any other responsibilities. The fire guard is responsible to inspect for smoke and fire, and if found immediately contact the Fire Department.

# During the checks of the area, the fire guards must:

- make sure there is no fire
- egress routes are clear
- fire extinguishers and fire alarm pull stations are available.

If any problems are found, the fireguard must report it to building owner or the responsible person immediately. The designated person will then make plans to have the defects corrected.

The inspection may differ from one location to another. However, the following general inspection rules apply for all locations.

(a) Inspect all exits, stairways, and hallways to determine condition and availability for use. All exits, stairways, and hallways must be kept free and clear. Blocked exits may prevent occupants from leaving the building.

Exit doors must open in direction of travel. The exit aisle is generally required to be at least 3 feet wide.

Locks, bolts and chains cannot be installed on the exit doors while the building is in use. If locks are seen, they **must** be removed immediately. The fire guard must report these issues to the building owner. The building owner must make sure that the chains or locks are removed.

- (b) Check all doors in the affected areas to make sure they are functioning properly. and available for use. Close attention must be paid to the stairways and areas where there are fire doors. Ability to exit into the stairway must be available from each floor of the building. A panic bar may be installed on the door, which allows occupants to exit quickly from the premises in case of an emergency. The impairment fire guard must ensure that there are fire doors, and that they are in good working order.
- (c) Check self-closing doors. They should not be blocked and need to remain closed at all times (when not in use). The fire guard 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 emergencies. These doors must be marked with a sign stating that they are self-closing. All self-closing doors in the building must be kept in good working order. They must be checked, regularly, to make sure that they may not be opened and closed freely. If any defects are noticed the building owner must be advised.
- (d) Check that exits are properly labeled, and hallways and stairways, are lit. There must be emergency lighting around all exits. Directional signs must clearly show the path to exit. Exit signs posted above doors and emergency lighting must be lit.

- (e) **Check the entire location, daily, for ignition sources.** Any likely ignition sources that are found must be immediately fixed. For example, arcing or exposed electrical wiring must be reported.
- (f) **Smoking is prohibited.** The fire guard must enforce the smoking rules in the area.
- (g) **Inspect the premises for buildup of garbage.** Trash and garbage must not to be allowed to build up inside the building. Large amounts of trash is a fire hazard. It can be easily ignited by a stray spark. Trash must be regularly removed from the property. If there is an accumulation of trash, building owner must be promptly notified.
- (h) **Know the location and how to use the fire extinguishers, and fire alarm pull stations.** All fire extinguishers and pull stations must be clearly visible. The fire guard must know how to use fire alarm pull station and fire extinguishers. Fire alarm pull station should **only be activated in case of fire emergency**.
- (i) **Hot work operations may be prohibited**. The fire guard must know that hot work is not allowed in areas of a building where the sprinkler system is impaired. At a construction site, hot work operations are not allowed if the sprinkler system or the standpipe system is impaired.

Many of the fire safety concerns that exist for occupied buildings are also a concern for construction sites. The fire guard needs to be aware that conditions at construction sites are constantly changing, periodic inspections are very important. Pathways to an exit may change from every day. The quantity and location of hazardous materials stored and used may also change. The fire guard must be able to identify all changes that impact fire safety.

# 1.3 Inspection Record

(Fire Rule901-04(d)(11))

A record must be kept on the premises for at least 3 years and maintained by the assigned person. The record of all fire safety-related activities must be made available for inspection by the Fire Department. It must be in writing or recorded through approved electronic measures. The record must be maintained for at least 48 hours after the fire watch has finished.

The daily written record must be signed by the fire guard. The following items must be logged:

- (a) the number of inspections completed;
- (b) defects found;
- (c) violations that have been found, and
- (d) the date, name, Certificate of Fitness number and signature of the fire guard who conducted the inspections.

An example of the inspection record is shown on the next page. Fire Watch/Fire Guard Daily Record (example)

Building Address:	<u>u (example)</u>	Date: C of F Holder's Name:
	Fire Watch/ Fire Guard Record	Signature: C of F #:
Patrolled Area:		Exp Date:

#### Directions:

- As the Fire Guard, you are required to make and record hourly inspections, on this log.
- Mark "OK" for items that are satisfactory, "X" for items that are unsatisfactory, and "N/A" for items that are not applicable.
- Provide a description of unsatisfactory items in the comments section and bring them to the attention of the responsible person.
- Print your name and sign the log at the end of your shift.

Time	<b>:</b>	<b>:</b>	_ <b>:</b>	 _ <b>:</b>	_ <b>:</b>
<b>Exits and stairways:</b> Exits and stairways are not blocked. Exit doors/gates are free of locks. Self-closing doors are not open. There is sufficient lighting in exit corridors.					
<b>Potential Ignition Sources:</b> No arcing or exposed electrical wiring.					
<b>Trash Accumulation:</b> Ensure that corridors are free of garbage and debris.					
<b>No-Smoking:</b> Ensure "No Smoking" is enforced in the affected areas.					
Fire Alarm Pull Stations: Are not damaged.					
<b>Fire Extinguisher:</b> Fire extinguishers are in their designated areas.					
Standpipe and Sprinkler System: No visible breaks, leaks and damage. FDNY connections and fire hydrants are free and clear.					
Comments					

#### 1.4 Fire Department Notification and Emergency Procedures

#### 1.4.1 Fire Department notification for impairment

It is important that the department be notified if a standpipe system, sprinkler system or fire alarm system is out of service, whether because of a planned removal from service or an unplanned out-of-service condition.

- (1) **Standpipe systems.** Notification must be made to the department whenever a standpipe system is or will be out of service for any period of time.
- (2) **Sprinkler systems and fire alarm systems.** Notification that a sprinkler system or fire alarm system, or any part, is or will be out of service must be made to the department under the following circumstances:
  - The sprinkler system or fire alarm system is or will be out of service on more than one floor of a building; or
  - With respect to a sprinkler system, the work or repairs cannot be completed, and the system restored to service, within 8 hours of the time the system was placed or went out of service; or
  - With respect to a fire alarm system, the work or repairs will require the fire alarm system to be out of service for more than 8 hours in any 24-hour period; or
  - One or more other fire protection systems in the area in which a fire protection system is out of service are or will also be out of service at the same time.

The general information (non-emergency) numbers that should be used for notifications are:

Manhattan	(212) 570-4300
Brooklyn	(718) 965-8300
Queens	(718) 476-6200
Bronx	(718) 430-0200
Staten Island	(718) 494-4296

The impairment coordinator must be able to give the following information:

- The building owner's or impairment coordinator's name and contact information;
- the building address:
- the type of fire protection system that is out of service;
- whether the out-of-service is planned or unplanned;
- if a planned removal from service, the date and time the fire protection system will be placed out of service, and the estimated duration the system will be out of service;
- If an unplanned out-of-service condition, the estimated duration the system will be out of service;
- The floors or areas in which the fire protection system is out of service;
- if the other fire protection systems are in good working order;
- The name and certificate number of the Certificate of Fitness holder responsible for supervision of the fire protection system that is out of service.

#### 1.4.2 Emergency notification and procedures

Fire guards must have a method of contacting emergency services. Fire guards can use cell phones to make notifications. They must ensure that there is enough battery power to cover their shift. Notifying by phone is the most direct and effective way to notify the Fire Department.

If a fire guard becomes aware of a fire, he/she must immediately call 911 and report the emergency. There must be no delays in making a notification. The Fire Department can also be notified using a street fire alarm pull station. The fire guard must also sound the fire alarm pull station (where available) to alert the occupants.

The fire guard must also immediately notify the impairment coordinator, FLSD, CSFSM or other on-site responsible personnel, but **only after calling 911**. The responsible person will give directions to the fire guard. The fire guard must follow those instructions. For example, the FLSD may inform the fire guard of the safest evacuation route from the building.

When notifying 911 of a fire or other emergency, the call-taker will need to know certain information about the emergency. Obviously, the nature of the emergency and address are the most critical pieces of information. The operator may also ask what the nearest cross-street is, and if anyone needs medical attention and if so, what their symptoms are. Additionally, if you are responsible for a very large construction site or large building, it is likely that there will be more than one means of entry. It would be helpful to provide information on which entrance offers the quickest access to the emergency area, so emergency responders can reach it faster. If certain entrances are obstructed and are not easily accessible by emergency responders, this information must be communicated to the 911 operator. The more information you have available to communicate with the 911 operator, the easier it will be to get the right kind of help, quickly.

When you call 911, in addition to the information mentioned above, you should be prepared to answer other questions, which may include:

- The phone number you are calling from
- The nature of the emergency
- Details about the emergency, such as a description of any fire that may be burning, or a description of injuries or symptoms being experienced by the person having a medical emergency.

Be prepared to follow any instructions the operator gives you. Many 911 operators can tell you exactly what to do to help, while waiting for emergency services to arrive. Finally, do not hang up the phone until the operator instructs you to.

In case of a fire emergency, occupants may have to be evacuated. Occupants on the fire floor and the floor above are in the greatest danger and must be evacuated first. The fire guard responsible for helping with the evacuation should be calm and in control of the situation. Fire guards need to speak in a clear manner while helping with the evacuation. Their instructions and actions play an important role in controlling panic in an emergency. Occupants should be told to be calm and move quickly to the closest exit. The fire guard should tell the occupants to avoid the elevators and direct them to use stairwells to exit.

After the FDNY arrives, the fire guard should be sure to meet the emergency responders to provide them with information regarding the nature of the emergency, its location and to provide the information that the emergency responders request.

#### 1.4.3 Manual or pull station devices

The purpose of a fire alarm system is to warn the occupants to leave the premises in case of a fire or other emergency. Some fire alarm systems are activated automatically. Other must be activated manually. Fire alarm systems that are manually activated use fire alarm pull stations. The manual pull stations may not directly transmit a signal to the FDNY. A phone call must always be made to 911 or the FDNY dispatcher. DONT assume that the FDNY has been called if you hear a fire alarm or smoke detector sound.

Fire alarm pull stations are located near the exits in the protected area, they must be visible, clear, and reachable. There must be at least 1 manual fire alarm station on each floor of a building (except residential buildings). Manual fire alarm pull stations should be of opposite color to the background on which they installed on. Approved plastic covers may be used to protect fire alarm pull stations. They help to avoid false alarms.

There are 2 types of manual fire alarm pull stations, **single action** and **double action**.

**A.** <u>Single action stations</u>: Single action stations take only 1 step to sound the alarm. The cover on these alarm stations serves as a lever. This kind of alarm station is often found indoors, e.g., in office buildings. When the cover is pulled down, it sends the alarm signal.







Single action stations

Activating a single action station

- **B.** <u>Double action stations</u>: Double action stations require 2 steps in order to activate the alarm. The user must:
  - Break a glass, open a door or lift a cover,
  - Then gain access to a switch or lever which must then be operated to initiate an alarm.

To activate this type of alarm station the cover must be lifted before the lever is pulled. This kind of double action station is often found indoors. Another kind of double action break glass station requires someone to break a small glass with a small metal mallet.







**Double action station** 

Activate a double action station

The fire guard must know how to manually work each alarm station on his site. Once activated, the fire alarm system cannot be reset at the fire alarm manual pull station. The alarm must be reset at the main FACP (Fire Alarm Control Panel). The alarm may be reset only by an S-95 Certificate of Fitness holder **after** being advised by a Fire Department representative. Once alarm is activated, a key may be needed to reset the manual pull station.

Fire guards should be familiar with the location of all fire protection devices and fire alarm pull stations. The handle should be at least 4 feet from the floor. Pull stations must be located within 5 feet from the exit doorway opening and never be blocked.

# 1.4.4 <u>Safety requirements</u>

Several types of safety signs may be posted at different locations inside the building. For example, these signs may be:

- (a) The general behavior is 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 emergency equipment.
- (d) How to sound the fire alarm in case of an emergency.
- (e) Banned use of elevators during fire emergencies unless instructed by the Fire Department.
- (f) The floor numbers.

The fire guard should be aware of the fire safety sign requirements. Being aware of the signs help fire guard perform his work. He/she should also make sure that exit signs posted above doors are always lit (illuminated). Examples of these signs are shown on the next page.













Fire Extinguisher Sign



**Elevator Warning Sign** 



No-smoking Sign



Sprinkler Sign



STAIR A NO RE-ENTRY

(posted by outside of door)

STAIR FLOOR

5

No Re-entry on this Floor,
Nearest Re-entry on the
4th and 8th Floors

Stair Signs

(posted by door inside of stairwell)

#### PART 2. FIRE PROTECTION SYSTEM AND FIRE EXTINGUISHERS

#### 2.1 Sprinkler System

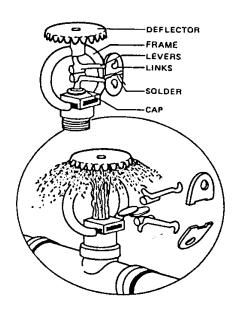
A sprinkler system is required by FDNY rules. As required by law, all apartment buildings built after March 1999 need to have fire sprinkler systems installed. Fire sprinklers consist of a water supply system that delivers suitable pressure and flows to a water distribution piping system, connected to fire sprinklers. The purpose of sprinklers is to control and possibly extinguish the fire.

Sprinklers are intended to control the heat release rate of the fire. Sprinklers can cool the nearby items to prevent the spread of fire. When sprinklers are out of service or not installed, the chances property loss because of a fire will increase.

\*\*It is important to know about materials that are stored in the building as water reactive materials may present special risks in an area.

The sprinkler system has automatic devices made to release water on a fire. These devices are called sprinkler heads. The sprinkler heads are usually covered by a disk or cap. This cap is held in place by a heat sensitive releasing part. A rise in temperature to a preset level causes the sprinkler head to open. Water is then released in the form of spray. The term "fused" means that sprinkler heads opened. Sprinkler heads are installed at regular intervals on the piping. If more than one head opens, the area is sprayed by each sprinkler head, and spray pattern may overlap.

An S-12 COF holder (Supervision of Citywide Sprinkler System) is responsible for conducting inspections and certifying system compliance with the NYC Fire Code. A typical sprinkler head is shown in the picture below.



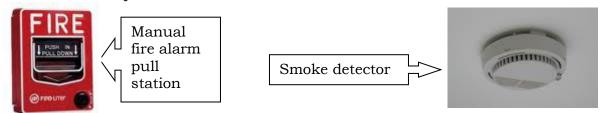
A TYPICAL SPRINKLER HEAD

#### 2.2 Standpipe System

A standpipe system is the part of the fire protection system that is made to give fast access to water in the event of a fire. Standpipes are fitted as individual systems and act as a building's fire hydrants. Standpipe systems can be added to sprinkler systems. Sprinklers may be automatic or manual as well as connection points for fire hoses. If the standpipe system is out-of-service, fire fighters may not have access to water delivery for manual firefighting.

These systems are mostly installed in buildings which are tall, large, or highly specialized. Dry standpipe systems have a series of pipes which bring water to various points in a building. The pipes are dry and empty when not in use. Wet systems are "charged," meaning that they are always filled with water.

#### 2.3 Fire Alarm System



Fire alarm systems are required in many buildings as part of the fire protection system. The 2022 Fire Code has expanded the requirements for fire alarm systems. These requirements include (not limited to) hospitals, universities or as specified in the Building Code. The main reason for a fire alarm system is to warn building occupants and to transmit signals to the FDNY. The transmission is done by an approved central station company.

Impaired systems may cause a delay in alerting building occupants and Fire Department, which can lead to a risk of serious property loss, personal injury or even death.

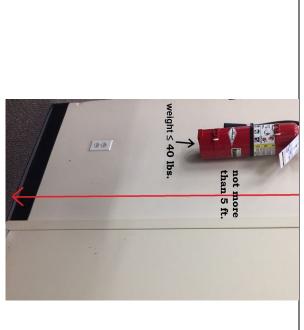
A fire alarm system consists of parts arranged to detect and alarm the status of signal-initiating devices. If threat is found, the system will provide the correct response to the signal.

In general, a fire alarm system may be automatic, manually activated, or both. If a fire occurs, the alarm system warns the tenants within the premises by triggering loud sirens, gongs, bells, speakers, horns and flashing lights. An S-95 Certificate of Fitness holder is responsible for performing inspections and ensuring the maintenance of Fire Alarm System.

#### 2.4 Portable Fire Extinguishers

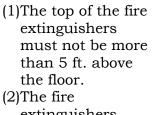
The fire guard should know how to use the fire extinguisher and other basic fire-fighting equipment. In residential buildings, a portable fire extinguisher may not be available. The fire guard should know the type and size of fire extinguisher available/needed while performing the duty.

All fire extinguishers must be mounted so that the top of the extinguisher is not more than 5 feet above the floor. The bottom of the fire extinguisher should be at least 4 inches from the floor. **Fire extinguishers are NOT allowed to be on the floor.** 



Correct installation





(2)The fire
extinguishers
must be
accessible and
unobstructed.



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



If the fire extinguisher has been used (discharged), a fully charged replacement is required before work can restart. Portable fire extinguishers are important in stopping a small fire from becoming a larger. Portable extinguishers are not intended to fight large or spreading fires.

By the time the fire has spread, portable fire extinguishers will not be enough to kill the fire. Such fires should be extinguished by the building fire extinguishing systems or trained firefighters only.

In case of any fire, 911 must be dialed. Fire extinguishers must be used in accordance with the rules printed on the side of the extinguisher. They plainly define how to use the extinguisher in case of an emergency.

Fire Guards must know the different types of fire extinguishers available at the work site, which type to use, and how to use it correctly. **Fire guards are responsible for extinguishing fires when they are small in size.** The Fire Guard Certificate of Fitness holder should know how to use

the portable fire extinguishers. When it comes to using a fire-extinguisher just remember P.A.S.S. P.A.S.S. stands for <u>Pull</u>, <u>Aim</u>, <u>Squeeze</u>, and <u>Sweep</u>.

#### An example of instructions is shown below:

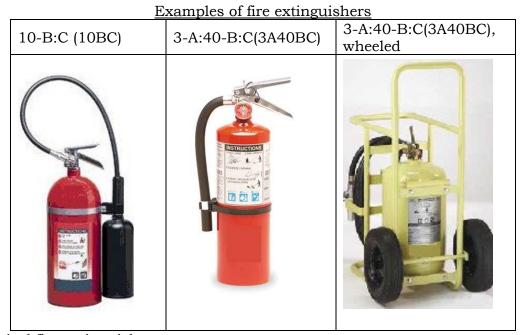
**Class A** fires are caused by ordinary combustible materials (such as wood, paper, and cloth). To extinguish a Class A fire, extinguishers should utilize either the heat-absorbing effects of water or the coating effects of certain dry chemicals.

**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 CO<sub>2</sub>, 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.

 ${\it Class D}$  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. Water should not be used to extinguish Class D fires.

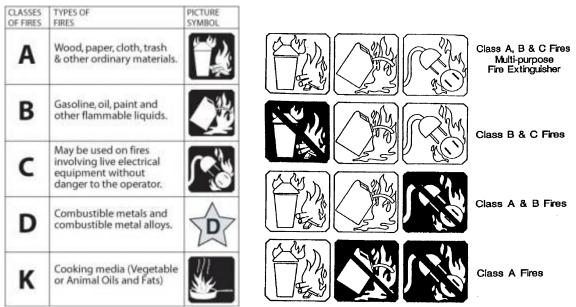
A multi-purpose dry chemical fire extinguisher may be used to extinguish more than 2 classes of fire. Examples of some fire extinguishers are shown below.



#### 2.4.1 Typical fire extinguishers

Symbols may also be painted on the extinguisher. The symbols show the type of fire the extinguisher may be used on. Examples of these symbols are shown on the next page.

The symbol with the shaded background and the slash indicates the extinguisher that must NOT be used. The Certificate of Fitness holder must know these symbols. All fire extinguishers should be always kept in good working order.



Fire Extinguisher Identification Symbols

#### 2.4.2 Portable Fire Extinguisher 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 businesses 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. OR code

IF you scan the QR code, it should direct you to the updated FDNY approved fire extinguisher company list. You could 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 was released for 2021-2023)

# 2.4.3 <u>Fire extinguisher inspections</u>

#### **MONTHLY**

The portable fire extinguishers are required to be <u>checked monthly</u>. The owner of the business is responsible for selecting a person to do a monthly inspection. This monthly inspection is called a "quick check".

#### The **QUICK CHECK** must 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 <u>annually</u> 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 on the annual inspection record must be indicated on the new PFE tag.

# PART 3: 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

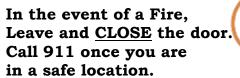
Laboratory (NRTL). (NRTL)



- 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 nvc.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, escooters, wheelchairs, etc.
- place batteries in Trash or Recycling bin. It is ILLEGAL. Visit nyc.gov/batteries for disposal locations and information.





# 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 explosions.

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



#### Appendix A

# IMPAIRMENT COORDINATOR AND FIRE WATCH REQUIREMENTS AND HOT WORK RESTRICTIONS FOR OUT OF SERVICE FIRE PROTECTION SYSTEMS AT CONSTRUCTION SITES

#### NEW BUILDINGS UNDER CONSTRUCTION (OCCUPIED BY CONSTRUCTION PERSONNEL ONLY)

	Fire Protection System	Status of Installation <sup>1</sup>	Impairment Coordinator Required? <sup>2</sup>	Fire Watch Required When Fire Protection System Out of Service? 3.4	Hot Work Allowed When Fire Protection System Out of Service? <sup>5</sup>
1	Standpipe system	Installed and approved	Yes	Yes. Fire watch required at all times (regardless of whether building vacant or occupied by construction personnel). Comply with FC901.7.7.	No hot work allowed.
2A	Sprinkler system	Not yet installed and/or approved	No	No fire watch required, except where special circumstances require. <sup>6</sup>	Hot work allowed.
2B		Installed and approved	Yes	Yes, as required by FC901.7. No fire watch required when entire building vacant/evacuated of construction personnel, except where special circumstances require. <sup>6</sup>	No hot work allowed.
3A	Fire alarm system	Not yet installed and/or approved	No	No fire watch required, except where special circumstances require. <sup>6</sup>	Hot work allowed.
3B		Installed and approved	Yes	Yes, as required by FC901.7. No fire watch required when entire building vacant/evacuated of construction personnel, except where special circumstances require. <sup>6</sup>	Hot work allowed, except no hot work allowed when fire alarm system sprinkler water flow alarm is out of service.

For purposes of this table:

<sup>&</sup>lt;sup>1</sup> A fire protection system is "installed and approved" when all required approvals for a full or partial installation have been obtained, including all signoffs required by the NYC Building Code.

<sup>&</sup>lt;sup>2</sup> The obligation to provide an impairment coordinator arises as soon as the fire protection system is installed and approved. If no impairment coordinator is designated, the building owner is deemed to be the impairment coordinator in accordance with FC901.7.1. See Footnote 9 for additional information about impairment coordinators.

<sup>&</sup>lt;sup>3</sup> A "fire watch" means the patrolling of the areas affected by an out-of-service fire protection system for fire by a Fire Department-certified fire guard (F-01 Certificate of Fitness) in accordance with FC901.7.2. The presence of a "watchperson" (holding a Fire Department F-60 Certificate of Fitness) at the construction site, as required by Building Code 3303.3, does <u>not</u> constitute compliance with the fire watch requirement of FC901.7.2.

<sup>&</sup>lt;sup>4</sup> "Out of service" means the fire protection system is not in good working order and/or has been temporarily removed from service for repair, maintenance or construction.

<sup>&</sup>lt;sup>5</sup> Hot work restrictions apply in areas affected by the out-of-service fire protection system. In accordance with FC901.7.7(4.3), hot work is not allowed anywhere on the construction site if the standpipe system is out of service. Hot work restrictions do not preclude hot work required to restore a fire protection system to service.

<sup>&</sup>lt;sup>6</sup> "Special circumstances" means a construction site determined by the Fire Department (pursuant to 2022 FC3304.5) to be unusually hazardous, which may include the following conditions: (1) no working fire hydrant within 250 feet of entrance to building or 100 feet of fire department connection (BC3303.7); (2) impediments to fire apparatus access to building; (3) no fire apparatus access to within 100 feet of temporary or permanent fire department connection (2022 FC3310); (4) anticipated delays in Fire Department response due to location of construction site; (5) sensitive occupancies in close proximity to construction site, including schools, hospitals and nursing homes; hazardous materials storage; public utility substations; bridges or other major infrastructure; (6) one or more fires, pattern of violations or other history of noncompliance at construction site(s); and (7) other special circumstances as determined by the Chief of Fire Prevention or Chief of Operations.

#### BUILDINGS OR FLOORS UNDERGOING ALTERATION and NEW BUILDINGS PARTIALLY OCCUPIED PURSUANT TO A TEMPORARY CERTIFICATE OF OCCUPANCY

	Fire Protection System	Status of System <sup>1</sup>	Impairment Coordinator Required? <sup>2</sup>	Fire Watch Required When Fire Protection System Out of Service? <sup>3,4,7</sup>	Hot Work Allowed When Fire Protection System Out of Service? <sup>5</sup>
4	Standpipe system	Installed and approved	Yes	Yes. Fire watch required at all times (regardless of whether building vacant or occupied). Comply with FC901.7.7.	No hot work allowed.
5A	Sprinkler system	Installed and approved (not removed)	Yes	Yes, as required by FC901.7. No fire watch required when entire building vacant/evacuated, except where special circumstances require. <sup>6</sup>	No hot work allowed.
5B		Removed pursuant to DOB permit. <sup>8</sup> No core loop system required.	No	No fire watch required, except where special circumstances require. <sup>6</sup>	Hot work allowed.
5C		Removed pursuant to DOB permit. <sup>8</sup> Core loop system installed and approved.	Yes <sup>9</sup>	Fire watch required when core loop system out of service and building occupied. No fire watch required when entire building vacant/evacuated, except where special circumstances require. <sup>6</sup>	Hot work allowed when core loop in service. No hot work allowed when core loop system out of service.
6	Fire alarm system	Installed and approved (not removed) <sup>10</sup>	Yes	Yes, as required by FC901.7. No fire watch required when entire building vacant/evacuated, except where special circumstances require. <sup>6</sup>	Hot work allowed, except no hot work allowed when fire alarm system sprinkler water flow alarm is out of service.

<sup>&</sup>lt;sup>7</sup> The removal of building compartmentation that served as passive fire protection in lieu of a sprinkler system (in pre-2008 buildings) constitutes an out of service sprinkler system.

<sup>&</sup>lt;sup>8</sup> Fire Department approval must be obtained in accordance with Building Code Sections 3303.7.4.3 and 3303.9 before DOB will authorize removal of a fire protection system.

<sup>&</sup>lt;sup>9</sup> An impairment coordinator is required for the core loop system and any portions of the building sprinkler system that remain installed and in good working order. In a partially occupied building, the building owner can make the building's impairment coordinator responsible for out-of-service fire protection systems in the areas of the building undergoing alteration or may designate a separate impairment coordinator. If separate impairment coordinators are designated, they must coordinate their respective responsibilities. See NYC Fire Code Guide, Chapter 9, Frequently Asked Question #10.

<sup>&</sup>lt;sup>10</sup> DOB allows removal or covering of smoke detectors during construction work provided that the other fire alarm system components remain operational. See DOB Buildings Bulletin 2012-009. A modified fire alarm system complying with the terms of the DOB permit is considered installed and approved for purposes of this analysis.

#### **BUILDINGS UNDER DEMOLITION**

	Fire Protection System	Status of Installation <sup>1</sup>	Impairment Coordinator Required? <sup>2</sup>	Fire Watch Required When Fire Protection System Out of Service? <sup>3,4</sup>	Hot Work Allowed When Fire Protection System Out of Service? <sup>5</sup>
7	Standpipe system	Installed and approved	Yes	Yes. Fire watch required at all times (regardless of whether building vacant/evacuated or occupied by construction personnel). Comply with FC901.7.7.	No hot work allowed.
8A	Sprinkler system	Installed and approved, except removed on floor(s) under active demolition.	Yes	Yes, as required by FC901.7. No fire watch required on floors under active demolition, or when entire building vacant/evacuated, except where special circumstances require. <sup>6</sup>	No hot work allowed, except on floors under active demolition.
8B		Removed pursuant to DOB permit <sup>8</sup>	No	Yes, in lieu of an operational sprinkler system, except in buildings undergoing mechanical demolition. No fire watch required on floors under active demolition, or when entire building vacant/evacuated, except where special circumstances require. <sup>6</sup>	Hot work allowed.
9A	Fire alarm system	Installed and approved, except removed on floor(s) under active demolition <sup>10</sup>	Yes	Yes, as required by FC901.7. No fire watch required on floors under active demolition, or when entire building vacant/evacuated, except where special circumstances require. <sup>6</sup>	Hot work allowed.
9B		Removed pursuant to DOB permit <sup>8</sup>	No	No fire watch required, except where special circumstances require. <sup>6</sup>	Hot work allowed.