

FIRE DEPARTMENT • CITY OF NEW YORK



**STUDY MATERIAL FOR THE
CERTIFICATE OF FITNESS EXAMINATION
F-01
CITYWIDE FIRE GUARD FOR IMPAIRMENT**

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NOTICE OF EXAMINATION

Title: **Examination for Certificate of Fitness for Citywide Fire Guard for Impairment (F-01).**

Date of Test: Written tests are conducted Monday through Friday (except legal holidays) 8:00 AM to 2:30 PM.

QUALIFICATION REQUIREMENTS

1. Applicants must be at least 18 years of age.
2. Applicants must have a reasonable understanding of the English language.
3. Applicant must provide two forms of identification, at least one identification must be government issued photo identification, such as a State-issued Drivers' License or Non Drivers License or a passport.
4. 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. The sample letters are available at the link below
http://www.nyc.gov/html/fdny/html/c_of_f/cof_requirements.shtml or the Public Certification Unit, 1st floor, 9 Metrotech Center, Brooklyn.
5. Applicants not currently employed may take the test without the recommendation letter. If the applicants pass the test, 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 the recommendation letter from his/her employer.
6. Special requirements for F-01 test:
NONE

APPLICATION INFORMATION

Application Fees: \$25 for originals and \$15 for renewals. The fee may be paid by cash, money order, credit card, debit card or personal check made payable to the New York City Fire Department. The \$25 fee must be paid by all applicants prior to taking the Certificate of Fitness test.

Application Forms: Application forms are available at the Public Certification Unit, 1st floor, 9 Metro Tech Center, Brooklyn, NY 11201.

RENEWAL REQUIREMENTS

You will receive a courtesy notice of renewal 90 days before the expiration date. However, it is your responsibility to renew your Certificate. It is very important to renew your C of F before it expires.

For renewal, send the renewal notification or a letter stating the C of F # with a fee of \$15, money order or personal check payable to "Fire Department City of New

York" to: FDNY (Cashier's Unit)
 9 MetroTech Center,
 Brooklyn, NY 11201

Late renewals (90 days after the expiration date, up to 1 year) will incur a \$ 25 penalty in addition to the renewal fee. Certificates expired over one year past expiration date will not be renewed. New tests will be required.

FDNY also reserves the right to require the applicants to take a re-examination upon submission of renewal applications.

TEST INFORMATION

The F-01 test will consist of **20** multiple-choice questions, administered on a “touch screen” computer monitor. It is a time-limit 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.

Additional important notice

- All applicants who passed the **F-00** and want to apply for **F-32, F-36** or **F-91** must submit their letter from employer by **12/31/2012**. No **F-32, F-36** or **F-91** will be issued from F-00 letter after **12/31/2012**.
- Current **F-32, F-36, F-44, F-91, F-92** Certificate of Fitness’s are valid and renewable.
- The **F-03, F-04, F-44 and F-92** Certificate of Fitness tests are available as a separate test.

WEBSITE

Please always check for the latest revised booklet at FDNY website before you take the test, the Certificate of Fitness Study Material link, below

http://www.nyc.gov/html/fdny/html/c_of_f/cof_study_materials.shtml

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



STUDY MATERIAL AND TEST DESCRIPTION

About the Study Material

This material will help you prepare for the examination 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. **It will not be provided to you during the test. It is critical that you read and understand this booklet to help increase your chance of passing this exam.** The study material does not contain all of the information you need to know to work as a fire guard. 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 study material. In order to adequately prepare for the exam, you need to be familiar with the Fire Code Section 401.3, 408, 901 and 906 (See Appendix A) and the NFPA 25 Chapter 14 (2002 Ed.) which regulate the duties of fire guards for performing fire watch when any required fire protection system is out of service.

About the Test

20 questions on the Certificate of Fitness examination are of the multiple choice type with four alternative answers to each question. Only one answer is most correct for each question. If you do not answer a question or if you mark more than one alternative your answer will be scored as incorrect. A score of 70% is required on the examination in order to qualify for the Certificate of Fitness. Read each question carefully before marking your answer. There is no penalty for guessing.

Sample Questions

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 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 can not assist applicants

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

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 fire guard performing a fire watch. This happens when a required fire protection system is out-of-service. Fire guards are required to inspect the areas in which the fire protection systems are out of service for fires.

Responsibility of the Building Owner

The building owner or their agent shall give an impairment coordinator all the necessary documents. That may include records, tests, servicing and other items relating to maintenance of fire protection systems. Such records shall be kept at work 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 shall act as the impairment coordinator.

Requirements

In any occupancy, where a required fire protection system is out of service, a fire watch shall be maintained. Fire watch can be maintained by one or more persons holding an F-01 or F-32 or F-36 or F-91 certificate of fitness for fire guard. The fire guard(s) is/are required to be immediately available when the system is out-of-service with the following exception:

For the initial 4 hours of an unplanned and 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 should 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 shall only be conducted by fire guards holding the F-01 certificate of fitness or a valid F-32/F-36/F-91 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 should 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 should 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 should be assigned.

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

Area	Planned or Unplanned	
	The initial 4 hours	> 4 hours
≤ 50,000 ft ²	A F-01/F-32/F-36/F-91 C of F holder or an Impairment coordinator or a trained and knowledgeable person	One F-01/F-32/F-36/F-91 C of F holder
> 50,000 ft ²	One F-01/F-32/F-36/F-91 C of F holder per 50,000 square feet	

The fire guard duties should be on a 24 hours a day basis. Duties should 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.

The Certificate of Fitness holder must keep the Certificates of Fitness readily available for inspection by any representative of the Fire Department. This should 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

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 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.

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.

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.

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. For example, fire guards are used when a sprinkler system is not installed (such as at a construction site). Fire guards are also used when an automatic fire protection system is taken out-of-service while repairs are being done. The fire guards are liable for making sure that fire safety regulations are followed.

Fire guards must have a general knowledge of **portable fire extinguishers and/or alarm pull stations**. If fire guards are responsible for them; they shall know their locations.

An **impairment** of fire protection system presents a hazards since detection, notification and extinguishing systems are not working. Individuals and premises **can not** depend on impaired fire protection systems to protect them. Individuals place trust and reliability upon fire protection systems, but non-operational systems will not be providing needed notifications.

1.1 Orientation

The F-01 COF authorizes the individual to act as an impairment fire guard to maintain fire watch responsibilities. F-01 COF is valid at any location on a citywide basis. Given this condition, the citywide fire guard for impairment may perform their duties for different buildings and occupancies.

When fire guards arrive to the affected area they should be provided with an orientation. The orientation may come from the **fire safety director (FSD) /fire safety coordinator, 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 safety director in a Group B (Office Building) or Group R-1 occupancy (Hotel) building (as described in the following table). The **fire guard** must work closely with the FSD (Fire Safety Director).

If there is no FSD available in the building, the fire guard should become familiar with the specifics of the building. Fire guard should speak to the building owner or the responsible person designated by the building owner. Fire guard should know the duties of a fire safety director.

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 extent 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 notification.

The fire guard should pay attention to the affected area where hazardous materials is stored, handled or used. The fire guard shall ensure the hazardous materials are stored, handled or used only in the chosen areas. Hazardous material shall 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.

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 occupant in the affected area.

- It is more difficult to evacuate 1,000 people at a party than 10 people in a warehouse.

The occupants 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 of impaired fire protection systems in the building.

- If a building has both 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.

		materials?
Group A	Assembly: for gathering together people	Not likely
A-1	With fixed seating, intended for the production and viewing of the performance arts or motion pictures	Theaters, Concert halls Not likely
A-2	Food and/or drink consumption	Banquet halls, Cafeterias, Bars, Restaurants Not likely
A-3	Worship, recreation or amusement, and other assembly uses not classified elsewhere in Group A	Art galleries, Bowling alleys Classrooms (with 75 persons or more) Courtrooms, Houses of worship Museums, School auditoriums Not likely
A-4	Indoor sporting events or activities with spectator seating	Swimming pools Tennis courts Not likely
A-5	Participation in or viewing outdoor activities	Grandstands, Bleachers, Stadiums Not likely
Group B	Business: Office, professional, service-type transaction, public or civic services	Banks Civic administration offices Educational occupancies above the 12 th grade (not in Group A) Nonproduction Laboratories Radio and television stations not admitting an audience Moderately likely
Group E	Educational: 5 or more persons at any one time for educational purposes offered to children through the 12 th grade and where no more than 2 children under the age of 2	Schools, Day care facilities where no more than two children are under the age of 2 Moderately likely
Group F	Factory: for assembling, disassembling, fabricating, finishing, manufacturing, packaging, repair, cleaning or processing operation that are not in Group H	Very likely

Occupancy	Occupancy Description	Examples	Hazardous materials?
F-1	Moderate-hazard	Aircraft repairs, Bakeries Manufacturing motor vehicles Dry cleaning using or storing combustible solvents Food processing (except meat slaughtering) Production laboratories (moderate hazards)	Very likely
F-2	Low-hazard: involve non-combustible, non-flammable materials, or low-hazardous production	Appliances, Glass products Production laboratories (low hazards) Nonflammable plastic products	Very likely
Group H	High Hazard: for manufacturing, processing, generation or storage of materials that constitute a physical or health hazard in quantities in excess of the those found in BC table 307.7(1) and table 307.7(2)		Very likely
H-1	Materials that present a detonation hazard	Explosive Materials Denotable water-active materials	Very likely
H-2	Uses present a deflagration hazard or a hazard from accelerated burning	Flammable or combustible liquids are used in open system Flammable gas	Very likely
H-3	Materials that readily support combustion or present a physical hazard	Flammable or combustible liquids are used in close system Flammable solids Oxidizing cryogenic fluid	Very likely
H-4	Materials that are health hazards	Corrosive, Toxic materials	Very likely
H-5	Semiconductor fabrication facilities using hazardous production materials (HPM) in excess of the permitted aggregate quantity		Very likely
Group I	Institutional: people are cared for or live in a supervised environment		Not likely
I-1	Housing persons, on a 24-hours basis, capable of self-preservation and responding to an emergency situation without physical assistance from staff	Alcohol and drug abuse rehabilitation centers Halfway houses	Not likely
I-2	Medical, surgical, nursing or custodial care, on a 24-hour basis, of more than 3 persons, who are not capable of self-preservation or responding to an emergency situation without physical assistance from staff	Hospitals, Nursing homes Metal hospitals where patients are not under restraint	Very likely
I-3	More than 5 persons who are detained under restraint or security reason	Mental hospitals where patients are under restraint Prisons, Jails, Detention centers	Not likely
I-4	Day care facilities, occupied by persons of any age who receive custodial care (without overnight) by individuals other than parents, guardians, or relatives in a place other than at the home.	Day nurseries	Not likely

Occupancy	Occupancy Description	Examples	Hazardous materials?
Group M	Mercantile: display and sale of merchandise	Department stores, Drug stores Motor fuel-dispensing facilities Wholesale stores	Very likely
Group R	Residential: for dwelling or sleeping purposes when not classified as Group I		Not likely
R-1	Occupied for a period less than one month	Hotels, Homeless shelters School student dormitories not in R-2 Group	Not likely
R-2	More than 2 dwelling units for shelter and sleeping accommodation on a long-term basis for a month or more	Apartment houses, Apartment hotels Student apartments	Not likely
R-3	No more than 2 dwelling units on a long-term basis for a month or more	One- and two-family dwellings Group homes	Not likely
Group S	Storage: for storage when not classified as a hazardous occupancy		Moderately likely
S-1	Moderate-hazard storage occupancy for any flammable or combustible materials	Storage of Aerosol, Boots and shoes, Woolen clothing, Furniture Leather, Wax candles, etc	Very likely
S-2	Low hazard storage occupancy for non-combustible materials	Storage of Electrical motors, Food products, Glass, etc	Not likely
Group U	Utility & Miscellaneous: structures of an accessory character, or not classified in any specific occupancy	Carports, Fences more than 6 feet high Towers	Not likely

Orientation Checklist (Example)

List	Mark "x" if yes	Note
1. Do you have a working cell phone?	<input type="checkbox"/>	If no, you must obtain one before starting your fire watch duty.
2. Are fire extinguishers provided in my area of responsibility?	<input type="checkbox"/>	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?	<input type="checkbox"/>	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? (That need to be notified upon discovery of building hazards or fire.)	<input type="checkbox"/>	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 condition in my area of responsibility.		
Is the alarm system operational?	<input type="checkbox"/>	If no, what areas are out-of-service?
Is the sprinkler system operational?	<input type="checkbox"/>	If no, what areas are out-of-service?
Is the standpipe system operational?	<input type="checkbox"/>	If no, what areas are out-of-service?
6. Have you been provided 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?	<input type="checkbox"/>	If no, obtain such information before starting your fire watch duty.

Fire Notification Procedure:

- Call 911 or the Fire Department dispatcher (according to borough). The dispatcher number is _____.
- Notify the building occupants by _____.
- Call the designated people (e.g. fire safety director or building owner). Their phone numbers are:

Name	Phone number
_____	_____
_____	_____
_____	_____

1.2 Fire Guard Patrols

Buildings and its parts that have out-of-service fire protection system should be constantly checked. Every area of the building should be checked at least once every hour.

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

During the checks of the area, the fire guards should make sure there is no fire. This person should also ensure that egress routes, fire extinguishers, and fire alarm pull stations are available. If any problem is found, the fire guard must report it to building owner or the responsible person immediately. The designated person will then make plans to have the defects corrected.

The inspections 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, 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 shall not 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 then report such event to the building owner. The building owner must make sure that the chains or locks are removed.

- (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. Exit into the stairway must be available from each floor of the building. Usually, a panic bar is installed on the door. The panic bars allow the occupants to quickly exit from the premises in case of an emergency. The fire guard must ensure that the fire doors exist, and are in good working order.
- (c) **Ensure that self-closing doors are not blocked and 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 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 not be opened and closed freely. If any defects are noticed the building owner must be advised.
- (d) **Ensure that exits are properly labeled, and hallways and stairways, are lit.** Emergency lighting shall be provided for exits. Directional signs shall 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. For example, arcing or exposed electrical wiring should be reported.
- (f) **Smoking is prohibitions.** The fire guard must enforce the no smoking rules in the area.

- (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) **Know the location and correct use of 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 the fire extinguishers.

1.3 Inspection Record

(Fire Rule 901-04(d)(11))

A record shall be kept on the premises, maintained by the assigned person. The record of all fire safety-related activities should be made available for inspection for Fire Department. It should be in writing or marked by an approved electronic device. 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 should 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: _____

 Patrolled Area: _____

**Fire Watch/
 Fire Guard Record**

Date: _____
 C of F Holder's Name: _____

 Signature: _____
 C of F # : _____
 Exp Date: _____

Directions:

- As the Fire Guard, you are required to make hourly inspections, and to record the result of your inspections on this log.
- Put "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	__:	__:	__:	__:	__:	__:
Exits and stairways: Ensure exits and stairways are not blocked. Exit doors/gates are free of locks. Self-closing doors are not open. There is a lot of lighting in exit corridors.						
Potential Ignition Sources: Look for arcing or exposed electrical wiring.						
Trash Accumulation: Ensure that corridors are free of debris and rubbish.						
No-Smoking: Ensure "No Smoking" is enforced in the affected areas.						
Fire Alarm Pull Stations: Should be inspected for damage.						
Fire Extinguisher: Fire extinguishers should be in their designated areas.						
Standpipe and Sprinkler System: Inspect for breaks, leaks and damage. Ensure that there are no blockades in the FDNY connections and fire hydrants.						
Comments						

1.4 Fire Department Notification and Emergency Procedures

1.4.1 Fire Department notification for impairment

The new Fire Code (FC) requires the Fire Department be notified of any fire protection system (including fire alarm) outage. 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 should be able to give the following information:

- their name and contact info;
- the address of the building;
- the fire protection system that is being removed from service;
- the floors or areas affected by the out-of-service system;
- the type of occupancy on those floors, and whether they will be used while the system is out of service;
- whether the out-of-service is planned or unplanned;
- the estimated time the system will be out-of-service for;
- if the other fire protection systems are in good working order;
- the responsible certificate of fitness holder for the fire protection system; and
- the names of licensed companies that will be doing the repairs.

1.4.2 Emergency procedures

The fire guard must have a method of connecting to emergency services. Fire guards can use cell phones to make notifications. They should 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.**

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

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

When a fire is found the fire guard must sound the fire alarm pull station (where available). The fire guard must alarm the Fire Department and the FSD or the building owner. The FSD or the building owner will give directions to the fire guard. The fire guard must follow those instructions. For example, the FSD may instruct the fire guard on safest evacuation route from the building.

1.4.3 Notification

The fire guard must be given at least one approved way for notifying the Fire Department. They must also be provided with any staff on the premises responsible for the doing the fire safety and evacuation plan. In case of a fire emergency, the fire guard must activate the fire alarm and call 911. The fire alarm will send an alarm signal; it

may also alarm an FDNY approved central station company. The Fire Department should be contacted by phone or other approved device. The Fire Department may also be called with a street fire alarm pull station. After the FDNY arrive, the fire guard must direct the fire fighters to the fire.

In case of a fire emergency, occupants may have to be evacuated. Occupants on the fire floor and the floor above have the most threat and must be evacuated first. If the fire guard is responsible for helping in the evacuation, they should be calm and in control of the situation. Fire guard should speak in a clear manner when 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.

In summary, the notification procedures should be:

- Call 911 or the local Fire Department dispatcher number.
- Notify the building occupants using the fire alarm pull station (if available).
- Notify the designated building staff (e.g. fire safety director or building owner).

1.4.4 Manual or pull station devices

The idea of a fire alarm system is to warn the occupants to leave the premise 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 shall be 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** stations:

A. Single action stations: Single action stations need 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. Double action stations: 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 become familiar with the location of all fire protection devices and fire alarm pull stations. All fire alarm pull stations installed or relocated after April 1, 1984 should be installed correctly. The handle should be about 4 feet from the floor. Pull station must be located within 5 feet from the exit doorway opening. They should never be blocked.

1.4.5 Safety requirements

Several types of safety signs may be posted at different locations inside the building. The signs are made to protect the occupants. For example these signs may be:

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

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

Typical Safety Signs

Exit Signs



Special Exit Signs



Fire Extinguisher Sign



Elevator Warning Sign



No-smoking Sign



Sprinkler Sign



Stair Signs



(posted by outside of door)



(posted by door inside of stairwell)

PART 2. FIRE PROTECTION SYSTEM AND FIRE EXTINGUISHERS

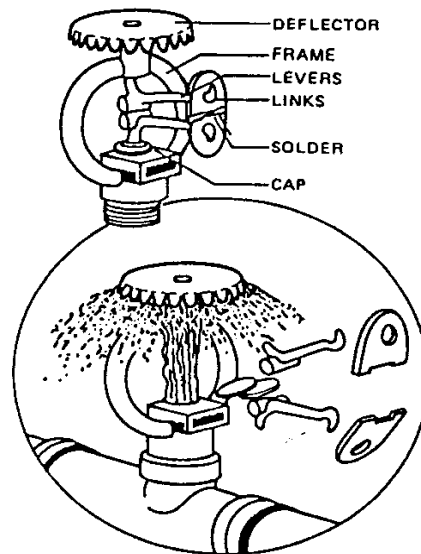
2.1 Sprinkler System

A fire sprinkler system is a live fire protection required by FDNY rules. As required by law, all apartment buildings built after March 1999 need to have fire sprinkler systems in the building. Fire sprinklers consists of a water supply system that delievers suitable pressure and flows to a water distribution piping system. Water distribution piping system is connected to fire sprinklers. The purpose of sprinklers is to control and extinguish the fire.

Sprinklers are intended to control the heat release rate of the fire. Sprinklers cool the nearby items to prevent the spread of fire. The fire dies when the burning particles disappear or after manual extinguishing. Water reactive materials may present special risks in an area. When the sprinkler system is out-of-service, it can't be used to extinguish fires. When sprinklers are not installed, the chances property loss because of a fire will be increased.

The sprinkler system has automatic devices made to release water on a fire. These devices are called sprinkler heads. The sprinkler heads are usually closed 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. The sprinkler heads are built 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 NYC Fire Code. A typical fusible link type sprinkler head is shown in the picture below.



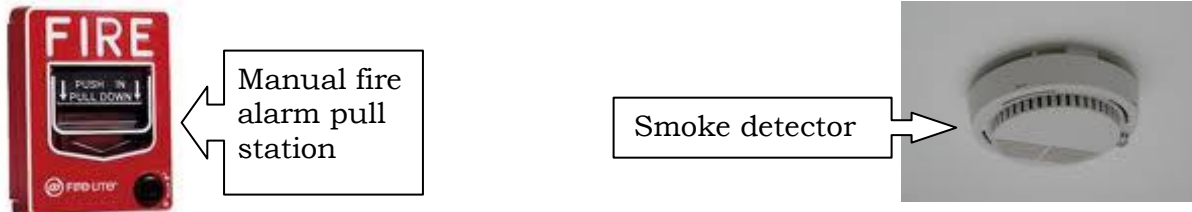
A TYPICAL SPRINKLER HEAD

2.2 Standpipe System

A standpipe system is a 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 has 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," they are always filled with water.

2.3 Fire Alarm System



Fire alarm systems are required in many buildings as part of a fire protection system. The new 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 signal 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. That may lead to a risk of serious property loss, personal injury or 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 is 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 maintenance of Fire Alarm System.

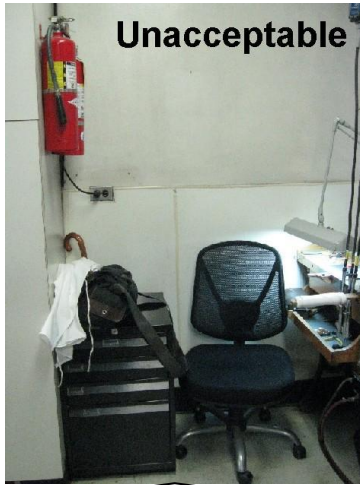
2.4 Portable Fire Extinguishers



The fire guard should know how to use the fire extinguisher and other fire-fighting equipment. In residential building, a portable fire extinguisher may not be available. The fire guard should know the type and size of fire extinguisher 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.**





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

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



If the fire extinguisher has been 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 fire. Portable extinguishers are not intended to fight large or spreading fires. **Fire guards are responsible for extinguishing fires when they are small in size.** 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. 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 Pull, Aim, Squeeze, and Sweep.

The fire guard must know different types of fire extinguishers available at the work site. The Certificate of Fitness holder must know how to use the extinguishers in a safe and efficient way. The Certificate of Fitness holder must also know the difference between many types of extinguishers.

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 CO₂, dry chemical or foam is most effective.

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

Class D fires are caused by ignitable metals, such as magnesium, titanium, and metallic sodium, or metals that are combustible under certain conditions, such as calcium, zinc, and aluminum. 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.

Examples of fire extinguishers

10-B:C (10BC)	3-A:40-B:C(3A40BC)	3-A:40-B:C(3A40BC), wheeled
		

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 kept in good working order at all times.

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



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

Class B & C Fires

Class A & B Fires

Class A Fires

Fire Extinguisher Identification Symbols

2.4.2 Fire extinguisher inspections

The extinguishers are required to be checked monthly. The owner of the place is responsible to select a person to do a monthly inspection. This inspection is a "quick check" that a fire extinguisher is available and will work.

The quick check should check if

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

The information of the monthly inspection record must include the date the inspection was done, the person who did the inspection, and portable fire extinguishers that require corrective action. At least 1 time per year, all fire extinguishers must be checked by the FDNY approved company and a W-96 Certificate of Fitness holder.

Monthly inspection tag.



Appendix A

CHAPTER 9 FIRE PROTECTION SYSTEMS

SECTION FC 901

GENERAL

901.1 Scope. This chapter shall govern the design, installation, operation and maintenance, including inspection and testing, of fire protection devices, equipment and systems, and other fire protection measures for the control and extinguishment of fire.

901.1.1 General. Fire protection systems shall be designed, installed, operated and maintained in accordance with this chapter and the reference standards set forth in Table 901.6.

901.2 Design and installation documents. The commissioner may require design and installation documents and calculations to be submitted for review for all fire protection systems. Design and installation documents required or regulated by this code or the rules shall be submitted for review and approval prior to installation, and shall certify that the design complies with the requirements of this code and the rules.

901.3 Permits. Permits shall be required as set forth in Section 105.6.

901.4 Design and installation. Fire protection systems shall be designed and installed in accordance with Sections 901.4.1 through 901.4.5.

901.4.1 Required fire protection systems. Fire protection systems shall be designed and installed in accordance with the construction codes, including the Building Code, and, as applicable, this code and the rules, and the applicable referenced standards listed in this code. Required systems shall be extended or altered as necessary to maintain and continue protection whenever the building or structure is altered. Alterations to fire protection systems shall be performed in compliance with the requirements of this code, the rules, and the construction codes, as applicable. Buildings and structures shall be provided with such fire hose, portable fire extinguishers and other means of preventing and extinguishing fires as the commissioner may direct.

901.4.2 Fire protection systems not required by code. Any fire protection system or portion thereof not required by this code, the rules or the construction codes, including the Building Code, may be installed to provide partial or complete protection of a building or structure, provided such system meets the requirements of this code, the rules and the construction codes, including the Building Code, as applicable. Where the design and installation of such fire protection system is governed by this code or the rules, the commissioner may modify such requirements, consistent with the interests of fire safety, upon a determination that such modification will promote public safety by encouraging the installation of such systems.

901.4.3 Additional fire protection systems. Where an existing or proposed storage, handling or use of a material or the conduct of an operation in a particular occupancy gives rise to special hazards in addition to the normal hazards of the occupancy, or where the commissioner determines that size, design and arrangement of the occupancy would unduly delay the ability of firefighting personnel to gain access to the hazard, the commissioner may require additional fire protection or other fire safety measures. Such measures may include the following: automatic fire detection systems, fire alarm systems, fire extinguishing systems, standpipe systems, or portable or fixed extinguishers. Where a certificate of occupancy limits the commissioner's authority to order the installation of such additional systems or the implementation of such additional measures, the commissioner may apply to the Board of Standards and Appeals for a modification of such certificate of occupancy, and such application shall be granted upon a showing that such additional systems or measures will reasonably mitigate the special hazard or delayed access.

901.4.4 Prohibition of deceptive equipment. It shall be unlawful to install or maintain any device that has the physical appearance of fire protection equipment but that does not perform the fire protection function, in any building, structure or premises where it may be confused with actual fire protection equipment.

901.4.5 Certificate of approval. The following fire protection devices, equipment and systems shall be of a type for which a certificate of approval has been issued in accordance with this code, or which was approved by the Department of Buildings or the Board of Standards and Appeals prior to the effective date of this section, unless such approval by the Department of Buildings or the Board of Standards and Appeals is amended or repealed by the commissioner:

1. Pre-engineered non-water fire extinguishing systems, including systems installed in connection with commercial cooking systems.
2. Prefabricated hoods and grease filters installed in connection with commercial cooking systems.
3. Fire department connections, standpipe system hose outlets and pressure reducing valves.
4. Fire alarm control units, and medical gas, toxic, highly toxic and flammable gas detection system control panels.

901.5 Installation acceptance testing. Fire detection and alarm systems, fire extinguishing systems, private fire hydrant systems, yard hydrant systems, standpipe systems, fire pump systems, private fire service mains and all other fire protection systems and appurtenances thereto shall be subject to acceptance tests as set forth in the installation standards specified in this code. Where required by the construction codes, including the Building Code, this code or the rules, such tests shall be conducted, at the owner's risk, by his or her representative before a representative of the department.

901.5.1 Occupancy. It shall be unlawful to occupy any portion of a building or structure until any required fire detection system, fire alarm system, standpipe system and fire extinguishing systems have been tested and approved.

901.6 Maintenance. Fire protection systems shall be maintained in good working order at all times. Any fire protection system that is not in good working order shall be repaired or replaced as necessary to restore such system to good working order, or, where authorized by the Building Code, removed from the premises.

901.6.1 Standards. Fire protection systems shall be inspected, tested, serviced and otherwise maintained in accordance with this section, the rules and the referenced standards listed in Table 901.6.1. Where required by this section, such inspection, testing and maintenance shall additionally comply with the rules. Where applicable, the requirements of the reference standards listed in Table 901.6.1 shall be in addition to those requirements specified in the rules.

**TABLE 901.6.1
FIRE PROTECTION SYSTEM MAINTENANCE STANDARDS**

SYSTEM	STANDARD
Portable fire extinguishers	NFPA 10
Low, medium and high expansion foam systems	NFPA 11 and NFPA 25
Carbon dioxide fire extinguishing system	NFPA 12
Halon 1301 fire extinguishing systems	NFPA 12A
Foam water sprinkler and spray systems	NFPA 16 and NFPA 25
Dry chemical fire extinguishing systems	NFPA 17
Wet chemical fire extinguishing systems	NFPA 17A
Water based fire protection systems	NFPA 25
Fire alarm systems	NFPA 72
Water mist fire extinguishing systems	NFPA 750
Clean agent fire extinguishing systems	NFPA 2001
Aerosol fire extinguishing systems	NFPA 2010

901.6.2 Records. Records of all system inspections, tests, servicing and other maintenance required by this code, the rules or the referenced standards shall be maintained in accordance with FC107.7.

107.7 Recordkeeping. A written record of the inspections, tests, servicing, fire watch and other operations and maintenance required by this code, the rules, the referenced standards and any other required recordkeeping referenced therein, shall be maintained on the premises or other approved location for a minimum of 3 years, unless a different period of time is specified in such code, rules or referenced standards. The commissioner may prescribe the form and format of such recordkeeping. Such records shall be made available for inspection by any department representative, and a copy of such records shall be provided to the department upon request, without charge. The department additionally may require that certain records be filed with the department. Electronic filings may be made in lieu of paper filings, when approved.

901.6.2.1 Standpipe and sprinkler systems. In addition to those records required by NFPA 25, an approved card bearing the dates of each inspection, certificate of fitness number and signature of the certificate of fitness holder shall be posted on the premises near the main water supply control valve. A detailed inspection report relative to conditions of water supply, gravity and pressure tanks and levels therein, valves, risers, piping, sprinkler heads, hose valves, hose and nozzles, fire department connections, alarms, fire pumps, obstructions, and conditions of all other system equipment and appurtenances shall be completed monthly by the certificate of fitness holder. All defects or violations shall be noted on the inspection report.

901.6.3 Supervision. A person holding a certificate of fitness for the following fire protection systems shall personally supervise the inspection, testing, servicing and other maintenance required by this code or the rules with respect to the system supervised by such certificate of fitness holder:

1. Sprinkler systems.

Exception: Buildings classified in Group R-3 occupancies.

2. Standpipe systems.

3. Foam fire extinguishing systems.

4. Fire alarm systems.

5. Private fire hydrant systems.

6. Yard hydrant systems.

901.6.3.1 Servicing of portable fire extinguishers. It shall be unlawful for any person engaged in the business of servicing portable fire extinguishers to service portable fire extinguishers without a portable fire extinguisher servicing company certificate. Any person that services portable fire extinguishers shall hold a certificate of fitness, except that a person training for such certificate of fitness may service portable fire extinguishers under the personal supervision of a certificate of fitness holder. Nothing in this section shall preclude portable fire extinguishers that are maintained on a premises for use at such premises from being serviced by the owner or occupant of the premises, or an employee of such owner or occupant, who possesses a certificate of fitness for portable fire extinguisher servicing and the tools, materials, equipment and facility necessary to perform such services.

901.6.3.2 Portable fire extinguisher sales. It shall be unlawful for any person to engage in the business of selling portable fire extinguishers door to door to owners of buildings or businesses for use on their premises without a portable fire extinguisher sales company certificate.

Exception: Sale to owners of Group R-2 and R-3 occupancy buildings.

901.6.3.3 Commercial cooking exhaust systems. It shall be unlawful for any person engaged in the business of inspecting and cleaning commercial cooking exhaust systems as required by the provisions of this code to perform such service without a commercial cooking exhaust system servicing company certificate. The inspection and cleaning of commercial cooking exhaust systems required by Section 904.11 shall be performed by a person holding a certificate of fitness. Nothing in this

section shall preclude commercial cooking exhaust systems from being inspected and cleaned by the owner or occupant of the premises, or an employee of such owner or occupant, who possesses a certificate of fitness for inspecting and cleaning commercial cooking exhaust systems and the tools, materials, and equipment necessary to perform such services in accordance with this section.

901.6.3.4 Smoke detector cleaning and testing. The cleaning and testing for smoke entry and sensitivity of smoke detectors installed in a defined fire alarm system shall be performed by a person holding a certificate of fitness for smoke detector maintenance. Such work shall be performed under the supervision and by employees of a person holding a smoke detector maintenance company certificate, except that such smoke detector cleaning and testing may be performed by an owner or occupant of the premises, or an employee of such owner or occupant, who possesses a certificate of fitness for smoke detector maintenance, and possesses the tools, instruments or other equipment necessary to perform such services in accordance this code and the rules. All other smoke detector maintenance shall be performed by a person possessing the requisite qualifications and experience, and any applicable license or certificate.

901.6.3.5 Central station fire alarm monitoring. It shall be unlawful for any person to operate a central station that monitors fire alarm systems and maintain transmitters in protected premises without a certificate of operation.

901.7 Out of service systems. The owner and the impairment coordinator for a standpipe system, sprinkler system or fire alarm system shall comply with the requirements of this section whenever such fire protection system is out of service. The department may direct that, until such fire protection system has been returned to service, fire safety measures appropriate to the size, configuration, occupancy, use and hazards be implemented that are in addition to or in lieu of those required by this section.

901.7.1 Impairment coordinator. The building owner shall designate an impairment coordinator to take the actions required by this section when a standpipe system, sprinkler system or fire alarm system is out of service. In the absence of a specific designee, the owner shall be considered the impairment coordinator.

901.7.2 Fire watch. Unless otherwise directed by the department, the building shall be evacuated or a fire watch maintained in accordance with this section when a standpipe system, sprinkler system or fire alarm system is out of service. Such fire watch shall be conducted in compliance with the requirements of FC 901.7.2.1 through 901.7.2.3.

901.7.2.1 Duties and responsibilities. Persons conducting a fire watch shall:

1. continuously patrol the area affected by the out-of-service fire protection system to which such person has been assigned, keeping constant watch for fires;
2. be provided with at least one approved means for notification of the department and any FLS director, FEP coordinator or FEP staff on the premises;
3. immediately report any fire to the department and notify emergency preparedness staff on the premises;
4. be trained in the use of portable fire extinguishers and equipped with a portable fire extinguisher, or made aware of the location of readily accessible portable fire extinguishers in the area to which such person has been assigned to maintain a fire watch;
5. be responsible for extinguishing fires when they are limited in size and spread such that they can readily be extinguished using a portable fire extinguisher;
6. maintain a record of such fire watch on the premises during the fire watch and for a minimum of 48 hours after the fire watch has concluded; and
7. have no other duties.

901.7.2.2 Fire guards required. The fire watch required when a standpipe system, sprinkler system or fire alarm system is out of service shall be maintained in accordance with FC901.7.2.2.1 and this section.

Exception: The impairment coordinator or other building staff trained and knowledgeable in conducting a fire watch may conduct a fire watch in lieu of a fire guard during the initial 4 hours of a planned removal from service, or after discovery of an unplanned out-of-service condition, provided that the floor or area in which the fire protection system is out of service does not exceed 50,000 square feet (4645 m²).

901.7.2.2.1 Fire guards required. The fire watch required for an out-of-service standpipe system, sprinkler system or fire alarm system shall be maintained by one or more fire guards.

901.7.2.3 Fire watch coverage. A sufficient number of fire guards shall be provided such that each floor or area in which the fire protection system is out of service is patrolled at least once an hour. The area to be patrolled by each fire guard shall not exceed more than 50,000 square feet (4645 m²) of floor area. The area patrolled by each fire guard may be further limited by the department depending on the configuration of the premises, impediments to patrol, nature of the occupancy, fire risk, and other fire safety considerations.

901.7.3 Planned removal from service. 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, alteration, testing and other maintenance of the system or component, or to allow construction to be performed in the area protected by the system without unnecessarily activating it. The impairment coordinator shall authorize and personally supervise the placing of the fire protection system out of service. Before authorizing the placing of the fire protection out of service the impairment coordinator shall:

1. notify the certificate of fitness holder responsible for supervising the maintenance of the standpipe system, sprinkler system or fire alarm system.
2. determine the extent and expected duration of the out-of-service condition.
3. inspect the areas or buildings involved and assess the increased risks.
4. make appropriate recommendations to the owner.
5. notify the department in accordance with FC901.7.5, if required.
6. notify the responsible person designated by the owner to issue hot work authorizations in accordance with FC Chapter 26.
7. notify the central station and insurance carrier.
8. notify the occupants in the affected areas if the duration of time the sprinkler system or fire alarm system will be out of service is estimated to be more than 30 minutes.
9. place a tag at each fire department connection, standpipe and sprinkler system control valve and fire command center, indicating which fire protection system, or part thereof, is out of service.
10. maintain the fire protection system in service until work is ready to begin.

901.7.4 Unplanned out-of-service condition. Any person, upon becoming aware of any condition, except a planned removal from service, rendering a standpipe system, sprinkler system or fire alarm system, or part thereof, inoperable in whole or in part, shall notify the owner and the impairment coordinator of such condition. The impairment coordinator shall take the actions set forth in FC901.7.3 and 901.7.5, and such other actions as are necessary or appropriate to protect the occupants of the building and promptly restore the system to service.

901.7.5 Notification to department. The department shall be notified that a standpipe system, sprinkler system or fire alarm system is out of service, whether by

reason of a planned removal from service or an unplanned out-of-service condition, where required by FC 901.7.5.1 through 901.7.5.3.

901.7.5.1 Standpipe systems. Notification shall be made to the department whenever a standpipe system is or will be out of service for any period of time.

901.7.5.2 Sprinkler systems and fire alarm systems. Notification that a sprinkler system or fire alarm system, or any part thereof, is or will be out of service shall be made to the department under the following circumstances:

1. The sprinkler system or fire alarm system is or will be out of service on more than one floor of a building; or
2. 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
3. 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
4. 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.

901.7.5.3 Reporting requirements. Notification of an out-of-service condition pursuant to this section shall be made by the impairment coordinator to the Department at the applicable telephone number set forth in FC401.2.2. Such notification shall include the following information:

1. The owner or impairment coordinator's name and contact information;
2. The building address;
3. The type of fire protection system that is out of service;
4. Whether the fire protection system is out of service by reason of a planned removal from service (and if so, the reason for placing it out of service) or an unplanned out-of-service condition;
5. 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; 6. If an unplanned out-of-service condition, the estimated duration the system will be out of service;
7. The floors or areas in which the fire protection system is out of service;
8. Whether the other fire protection systems are in good working order; and
9. The name and certificate number of the certificate of fitness holder responsible for supervision of the fire protection system that is out of service.

901.7.6 Restoring systems to service. When an out-of-service device, equipment or system is restored to service, the impairment coordinator shall:

1. conduct necessary inspections and tests to verify that the affected systems are operational.
2. notify the department.
3. notify the owner, central station, insurance carrier, emergency preparedness staff, and, if previously notified, the occupants in the affected areas.
4. remove the out-of-service tags.

901.7.7 Out-of-service standpipe systems at construction sites. The owner, fire safety manager and/or impairment coordinator shall take the following actions whenever a standpipe system at a construction site is out of service:

1. Immediately notify the department of any unplanned out-of-service condition, and otherwise comply with the requirements of FC901.7.4.
2. Notify the department at least 24 hours prior to any planned removal of the standpipe system from service, and otherwise comply with the requirements of FC901.7.3.

3. Ensure that a fire watch is continuously maintained in compliance with the requirements of FC901.7.2 while the standpipe system is out of service.

4. Repair the standpipe system and return it to service in compliance with the requirements of FC 901.7.6 and Section 3303.8.1 of the Building Code. The construction site may continue to be occupied, and construction, demolition or alteration activities may continue, pending such repair and restoration to service, except:

4.1. as otherwise provided in Section 3303.8.1 of the Building Code; and/or

4.2. as otherwise directed by the commissioner upon a determination that, in the absence of an operable standpipe system, the conduct of certain construction,

demolition or alteration activities would be imminently perilous to life or property; and

4.3. that in no circumstance shall hot work be conducted on the construction site until such time as the standpipe system is restored to service and the standpipe alarm reactivated.

901.8 Tampering with or rendering equipment inoperable. Fire protection systems and related apparatus shall not be tampered with or rendered inoperable, except as set forth in FC107.4.

901.9 Recall of fire protection system components. A component of a fire protection system regulated by this code that is subject to a voluntary or mandatory recall under federal law shall be replaced with an approved, listed component in compliance with the referenced standards. A record of the replacement of the component shall be maintained in accordance with FC107.7.