



FIRE PROTECTION SYSTEMS

WHAT ARE FIRE PROTECTION SYSTEMS?

Fire extinguishers are effective in extinguishing fires when they are small in size, but they are not suitable in fighting large or spreading fires. Such fires should be extinguished by the building's fire extinguishing systems or firefighters. Fire protection systems, including fire extinguishing system, are very important to detect, control, extinguish and alert building occupants to fire or smoke. Fire protection systems include sprinkler systems, standpipe systems and fire alarm systems. They are required in many buildings. You may find at least one kind of fire protection system in restaurants, retail stores, day cares, place of assembly, etc.

Functional fire protection systems are useful to prevent injuries and deaths from fires. FDNY requires qualified Certificate of Fitness (COF) holders to provide regular inspection, testing and maintenance for the required fire protection systems. These COF holders ensure that the systems are in good working condition.

It is important for you to know the following information if your building is protected by a fire protection system.

REGULATED FIRE PROTECTION SYSTEMS

WHAT IS A SPRINKLER SYSTEM?

A sprinkler system is a fire extinguishing system that most times uses water as the extinguishing agent. You may find sprinkler systems in residential buildings, retail stores, restaurants or possibly day care centers.



WHY ARE THEY IMPORTANT?

Sprinkler systems will help to control the fire. Because fire sprinkler systems react so quickly, they can dramatically reduce the heat, flames and smoke produced in a fire. According to the National Fire Protection Association, when working sprinklers are present, the chances of dying in a fire can be reduced by 50-75% and the average property loss per fire is cut by 50-66%.

WHO ARE AUTHORIZED TO INSPECT, MAINTAIN, TEST AND REPAIR YOUR SPRINKLER SYSTEMS?

Inspection, testing and maintenance of the sprinkler systems must be regularly done by certified individuals. Basically, an S-12/S-15 COF holder can perform visual inspection but cannot do mechanical inspection of the system. The higher the qualifications, the more the COF can do. For example, a Master Plumber with an S-12/S-15 COF can perform maintenance, testing and repair for the sprinkler systems. See the S-12/S-15 COF study material for further information.

WHAT IS A STANDPIPE SYSTEM?

A standpipe system is piping installed in a building that assists to transfer water to hose connections located within the building for firefighting purposes. A standpipe system serves as a fire hydrant inside of a building. These systems are located in high-rise/low rise commercial and residential buildings, shopping malls, parking garages, stadiums, warehouses, etc.

STANDPIPE SYSTEM



WHY ARE THEY IMPORTANT?

Standpipe systems provide a reliable water source to extinguish or control an interior fire in the building.

WHO ARE AUTHORIZED TO INSPECT, MAINTAIN, TEST AND REPAIR YOUR STANDPIPE SYSTEM?

Inspection, testing and maintenance of the standpipe systems—must be regularly done by certified individuals. Basically, an S-13/S-14 COF holder can perform visual inspection but cannot do mechanical inspections of the system. The higher the qualifications, the more the COF can do. For example, a Master Plumber with an S-13/S-14 COF can perform maintenance, testing and repair for the standpipe systems. See the S-13/S-14 COF study material for further information.

WHAT IS A FIRE ALARM SYSTEM?

A fire alarm system detects and alerts people when smoke or fire is present. The devices include smoke detectors, heat detectors, strobes, manual fire alarm station, fire alarm control panel, etc. They are commonly found in day care centers, restaurants, high-rise buildings and catering halls. A fire alarm system is designed to detect and alert people to the presence of smoke, fire, and poisonous gas. These devices include smoke, heat, and gas detectors, manual pull stations, and strobes connected to a fire alarm control. These systems are commonly found in daycare centers, restaurants, commercial buildings, and catering halls.

FIRE ALARM SYSTEM



WHY ARE THEY IMPORTANT?

A working fire alarm system provides early warning notification of fire/smoke conditions to the building occupants in addition to the appropriate authorities notified by the monitoring company.

WHO ARE AUTHORIZED TO INSPECT, MAINTAIN, TEST AND REPAIR YOUR FIRE ALARM SYSTEM?

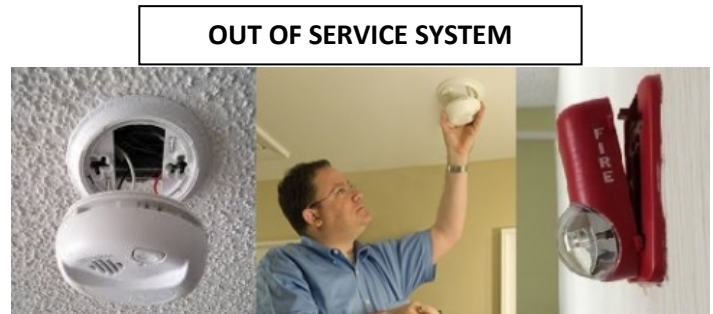
All approved fire alarm systems must be supervised by a COF holder depending upon the nature of the occupancy and/or the type of fire alarm system. However, these COF holders can only perform visual inspections but cannot do mechanical inspection of the systems. Only employees of FDNY approved companies with suitable COF can perform maintenance, testing and repairing of the fire alarm system. See S-95 or S-78/F-78 or S-97/S-98 COF study material for further information.

All commercial & multi-tenant building fire alarm systems are required to be monitored by an FDNY approved central monitoring company. Lists of the approved monitoring companies are published on the FDNY website:

<http://www1.nyc.gov/assets/fdny/downloads/pdf/business/approved-companies-central-station.pdf>

WHAT IS AN "OUT OF SERVICE SYSTEM"?

Any fire protection system that is not working. For example, a pipe in a standpipe system is leaking, the smoke detectors are scheduled to be cleaned; sprinkler system has no water, etc.



WHAT SHOULD BE DONE FOR OUT OF SERVICE SYSTEMS?

An out of service system is also called an impaired system. Some arrangement must be made if there is an out of service situation. The building owner or impairment coordinator must **provide fire watch immediately** when there is an out of service condition.

The impairment coordinator needs to perform the following steps to protect the occupants of the building:

1. notify the COF holder responsible for supervising the maintenance of the fire protection system.
2. find out the extent and expected duration of the out-of-service condition.
3. inspect the areas involved and assess the increased risks.
4. make recommendations to the owner.
5. notify the FDNY if required.
6. notify the central station and insurance carrier.
7. notify the responsible person designated by the owner to issue hot work authorizations.
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. have a tag placed at each FDNY connection, standpipe and sprinkler system control valve and fire command center, indicating which fire protection system, or part thereof, is out of service.

FIRE DEPARTMENT CONTACT INFORMATION FOR REPORTING AN OUT OF SERVICE SYSTEM.

For any non-emergency notification, you should call:

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

WHAT IS FIRE WATCH?

When any fire protection system is out of service, fire watch personnel will protect the building. Fire watch is a trained and knowledgeable person paying close attention to identify and control fire hazards. The fire watch must:

- continuously patrol the area affected by the out-of-service fire protection system to constantly watch for smoke and fire conditions;

- be provided with at least one approved means for notification of the FDNY and any appropriate staff in the building;
- immediately report any smoke and fire conditions to the FDNY and notify emergency preparedness staff on the premises;
- be trained on how to use a portable fire extinguisher and have accessible during watch patrols;
- extinguish fires when they are limited in size and can be extinguished using a portable fire extinguisher;
- maintain a record of fire watch on the premises during the fire watch and for a minimum of 48 hours after the fire watch has finished; and
- have no other duties.

WHEN SHOULD I HIRE A FIRE GUARD?

A qualified fire guard must hold an F-01 COF. It is not required to hire a fire guard for the first 4 hours of an out of service condition when the affected area does not exceed 50,000 square feet. Any trained and knowledgeable building staff can perform the fire watch if it is under 4 hours and under 50,000 square feet. However, if the affected area is more than 50,000 square feet or after 4 hours of an out of service condition, the fire watch must be performed by an F-01 fire guard. The area to be patrolled by each fire guard shall not exceed more than 50,000 square feet of floor area.

HOW TO RECEIVE A COF?

You can receive the COF if you pass the Fire Department exam. The exams are given at 9 Metrotech Center Brooklyn, NY 11201. The Fire Department gives study material free of charge to help prepare for the exam.

Study material is available online at: <http://www1.nyc.gov/site/fdny/index.page>

OR

Call 718-999-1988 to request a Study Guide

