

**STUDY MATERIAL FOR THE  
CERTIFICATE OF FITNESS EXAMINATION FOR  
FIRE GUARD GENERIC**

**F36**

This study material will help you prepare for the examination for the Certificate of Fitness for Fire Guard. The study material includes information taken from the Fire Prevention Code and the Fire Prevention Directives of the Bureau of Fire Prevention, NYFD. The study material does not contain all the information you need to know in order to perform the job of a Fire Guard at your work location. It is your responsibility to learn whatever else you need to know to do your job. You must also become familiar with all applicable rules and regulations of the City of New York, even if they are not covered in this material.

All questions on the Certificate of Fitness examination are multiple choice, with four alternate answers to each question. There is only one correct answer for each question. If you do not answer a question or mark more than one alternative, your answer will be scored as incorrect. A score of 70% correct 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. Fire guards are required at which of the following locations?
- (A) Construction sites.
  - (B) Marinas.
  - (C) Places of assembly.
  - (D) All of the alternatives are correct.

The correct answer is "D". You would mark "D" on your answer sheet.

- \_\_\_\_\_ 2. The purpose of conducting fire drills is to:
- (A) give employees a break from work.
  - (B) practice emergency evacuation procedures.
  - (C) make sure the sprinkler system works.
  - (D) be sure the Fire Department knows where the building is.

The correct answer is "B". You would mark "B" on your answer sheet.

## FIRE GUARDS

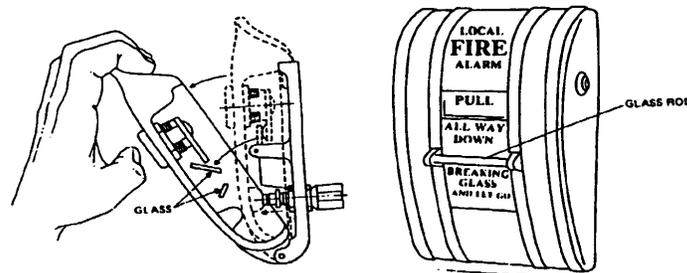
Fire guards are required to reduce the threat of fires in a variety of locations. For example, they are required in places of public assembly, hotels, film studios, construction sites, homeless shelters and marinas. Fire guards are used when sprinkler system is not installed, e.g., at construction sites. Fire guards are also used when an automatic fire protection system is shut down while being repaired. The fire guards are responsible for making sure that fire safety regulations are obeyed.

Fire guards must have a good working knowledge of basic fire fighting and fire protection techniques. They must know the location of all fire protection devices in their areas of responsibility. They must make sure that these devices are in good working conditions at all times.

### Requirements and Duties

Fire guards must know the location of all fire protection devices, as well as, interior and exterior fire alarm stations. At least one interior fire alarm station is required on each floor of the premises. The interior fire alarm pull stations are positioned at the natural exits on each floor of the building. In larger buildings the fire alarms pull stations must be spaced so that the distance between stations does not exceed 200 feet. They must be securely mounted to the wall between 3.5 and 5 feet above the floor level. All fire alarm pull stations must be painted red.

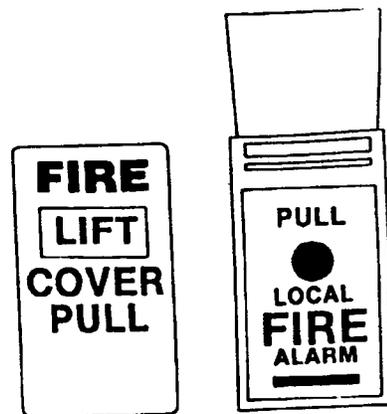
There are two kinds of fire alarm pull stations. They are called single action and double action stations. Single action stations require only one step to activate the alarm. For example, a single action station could be activated by simply pulling down on a lever or breaking some glass. Two examples of single action station are shown below. These two kinds of alarm station are often found indoors, e.g., in office buildings. The cover on these alarm stations serves as a lever. When the cover is pulled down, it allows a switch inside to close. This sends the alarm signal. The alarm station on the right is often called a "breakglass" station. Another kind of a single action breakglass station requires someone to break a small pane of glass with a small metal mallet.



**Single Action Stations**

The double action stations require the fire guard to take two steps in order to activate the alarm. The fire guard might have to remove a cover or break some glass before he can pull down the lever. A diagram of a double action alarm station is shown below. This fire alarm station is

activated by lifting the cover and then pulling the lever. This kind of double action station is often found indoors.



### Double Action Stations

The fire guard must know how to manually operate each fire alarm pull station on the premises. Once activated, the fire alarm system cannot be shut off at the fire alarm pull station. The alarm must be shut off at the main control panel at the fire command station by using a special key. The key must be kept near the control panel at all times. The alarm may be turned off only by an appropriate Certificate of fitness holder or by a Fire Department representative. A certificate of fitness for fire guard does not qualify an individual to turn off the alarm.

In some locations the fire guard is equipped with a walkie-talkie and/or bull horn. They are good to have but are not required by directives or regulations. The walkie-talkie is used to communicate with a fire safety director, a supervisor or Fire Department during a fire emergency. The bull horn is used to notify the occupants when evacuating the building. The bull horn allows the fire guard's instructions to be heard clearly. The bull horn and walkie-talkie should be inspected before making each patrol. Defective units should be repaired or replaced.

In case of a fire emergency, building occupants must be evacuated. Occupants on the fire floor and the floor above are most seriously threatened by the spread of the fire and must be evacuated first. The fire guard must remain composed and in control of the situation during a fire emergency. He/she must speak in a clear and concise manner when assisting with the evacuation. The fire guard's instructions and his/her actions play an important role in reducing panic during an emergency. The fire guard should speak in a clear and firm voice with no evidence of alarm. People should be instructed to be calm and move to the nearest way to safety in an orderly manner.

In case of a fire emergency, the fire guard must activate the fire alarm and notify the Fire Department. Activating the alarm will send an alarm signal throughout the building. It will also send a signal to a central station company. The Fire department may be contacted directly by phone or radio.

The fire guard must know the telephone numbers of the local fire house and the Fire Department Borough Communication Office. The Borough Communication Offices' phone numbers are listed below.

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

These phone numbers must be posted near the phones most likely to be used in case of an emergency.

The fire guard must make sure that all exits, hallways, and staircases are kept free of obstruction at all times. An exit aisle at least three feet wide is required in all locations. This aisle space is necessary to permit occupants to quickly exit the premises in case of an emergency.

### **Safety Requirements**

Several types of safety signs may be posted at various locations inside the building. The signs are designed to ensure the safety of occupants. For example these signs may indicate:

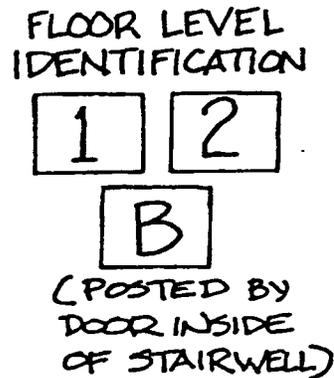
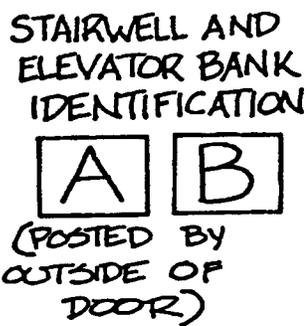
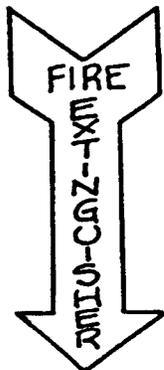
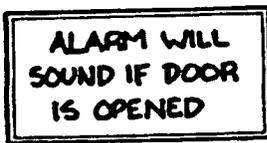
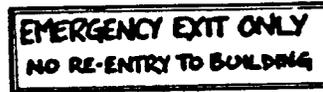
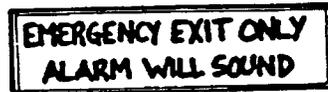
- (1) The general fire safety procedures to be followed during a fire emergency.
- (2) The location of fire extinguishers and emergency exits.
- (3) How to use the fire extinguishers and related fire fighting equipment.
- (4) How to sound the fire alarm in case of an emergency.
- (5) That the elevators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

The fire guard must make sure that all posted fire safety signs are clearly visible. He must also make sure that exit signs posted above doors are always illuminated. Examples of some **of these** signs are shown on the next page.

### **General Inspection Checklist**

The fire guards are required to make regular inspections and patrols of the assigned area of responsibility. These inspections may vary depending of the location. However, the following general guidelines for all locations. The fire guard must make sure that the following guidelines are followed.

- (1) All exits, stairways, hallways must be kept free of obstructions. Obstructions may prevent occupants from exiting the building in case of an emergency. An exit aisle at least 3 feet wide must be maintained. This aisle is also used by fire fighters during an emergency.



### Typical Safety Signs

(2) Self-closing doors must not be propped open. These doors are designed to close automatically when an alarm sounds. When the doors close it helps prevent the spread of fire and smoke.

(3) Locks, bolts, chains must not installed on exits while there are people in the building. If locks are discovered they must be removed immediately. The fire guard must then report the fire safety violation to his supervisor. The supervisor must make sure that the chains or locks are removed. If the supervisor does have the locks and chains removed the fire guard must notify the Fire Department.

(4) The entire premises must be checked daily for potential ignition sources. Any potential ignition sources that are discovered must be corrected or removed immediately. For example,

frayed electrical wires and defective electronic components must be either repaired or removed.

(5) Trash and garbage must not be allowed to accumulate anywhere 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

(6) The fire alarm boxes must be tested daily by the fire guard. It is not necessary to test all alarm boxes. Instead, one fire alarm box of each type should be tested daily.

(7) All required Fire Department permits and certificates must be current. The results of all tests and inspections must be recorded in the inspection log. The log, permits and certificates must be made available to Fire Department representatives upon request.

(8) If a sprinkler system is installed it must be visually inspected by the fire guard. The fire guard must report all defects to the supervisor. All leaks or breaks in the piping, tanks, valves, etc. - no matter how small- must be reported to the local fire house immediately.

(9) All fire extinguishers are clearly visible. Signs must be posted indicating the location of the extinguishers. Signs indicating how to use the fire extinguishing devices must be posted also. The fire guard must make sure that the extinguishers are inspected every six months. The fire extinguishers must be recharged after each time they are used or when required according to the type of extinguisher.

## **FIRE EXTINGUISHING DEVICES AND SYSTEMS**

### **Fire Extinguishers**

The fire guard must be familiar with the different types of fire extinguishers that are present on the premises. He/she must know how to operate the extinguishers in a safe and efficient manner. He/she must know the difference between the various types of extinguishers and when they should be used. A description of the four classes of fires and the appropriate extinguishers are described below.

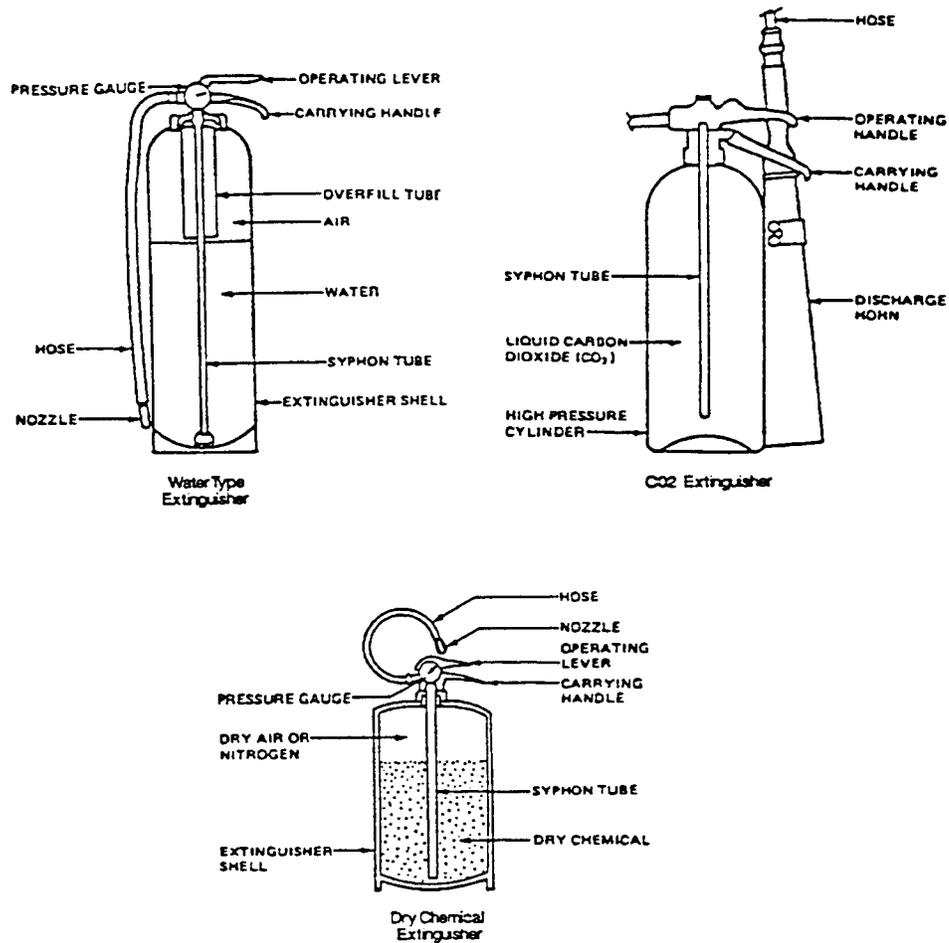
**Class A** fires are caused by ordinary combustible materials (such as wood, paper, and cloth), for which the quenching-cooling effect of quantities of water or solutions containing large percentages of water is most effective in reducing the temperature of the burning material below its ignition temperature.

**Class B** fires are caused by flammable petroleum products or other flammable liquids, greases, etc., for which 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. The electrical non-conductivity of the extinguishing media is of first importance. These fire must be extinguished with non-conductive media such as CO<sub>2</sub> or dry chemical.

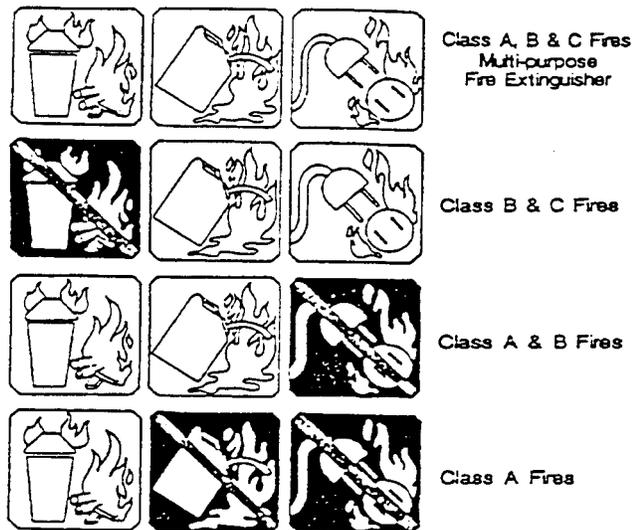
**Class D** fires are caused by ignitable metals, such as magnesium, titanium, and metallic sodium, or metal that are combustible under certain conditions, such as calcium, zinc, and aluminum. Generally, water should not be used to extinguish these fires.

A Multi-purpose dry chemical fire extinguisher may be used to extinguish Class A, B, or C fires. Examples of several extinguishers are shown below.



## Typical Fire Extinguishers

Symbols may also be painted on the extinguisher. They indicate what kind of fires the extinguishers may be used on. Examples of these symbols are shown below.



### Typical Symbols Painted on Fire Extinguishers

The symbol with the shaded background and the slash indicate that when the extinguisher must not be used. The fire guard must understand these symbols. The fire guard must make sure that the fire extinguishers are kept in good working order at all times.

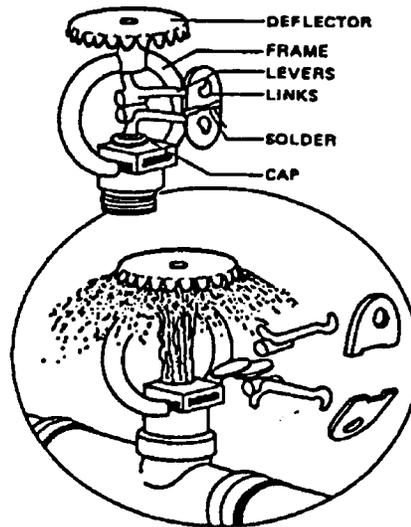
Generally, operation instructions are clearly painted on the side of the fire extinguisher. They clearly describe how to use the extinguisher in case of an emergency. An example of these instructions are shown below.



### Operation Instructions for a Fire Extinguisher

#### Sprinkler System

Sprinkler systems are commonly installed in buildings. They are designed to permit the discharge of water in case of a fire emergency. The systems may be activated automatically or manually. Both types of systems consist of a series of sprinkler heads and pipes connected to a water supply source. When a fire occurs the water travels through the pipes out of the sprinkler heads. A typical sprinkler head is shown below.



## A typical Sprinkler Head

The automatic sprinkler system is most commonly used. The sprinkler heads in the automatic system are temperature sensitive. They are designed to open when the temperature in the room reaches dangerous levels. This system allows the water to be discharged in the areas close to the fire.

The sprinkler heads in the manually activated system are always in the open position. A control valve must be opened to allow water into the pipes. The valve must be opened by the fire guard on duty in case of a fire emergency. This floods the entire area with water after the valve is opened.

A replacement supply of at least six extra appropriate sprinkler heads must be kept on the premises at all times. They must be used to replace defective or damaged sprinkler heads.

## Standpipe System

A standpipe system is commonly installed in many locations. It consists of a series of pipes and hoses connected to a water supply source. The hoses may be used to spray water on the fire. The water is controlled by using a special nozzle connected to the end of the hose. Water is discharged from the hose when the nozzle is rotated into the open position.

## INSPECTIONS

The fire guard must make sure that all fire protection devices are kept in good working order. When a problem is suspected with any of the fire extinguishing devices or systems, the fire guard must report it immediately to his supervisor. Then arrangements must be made to have the problem corrected.

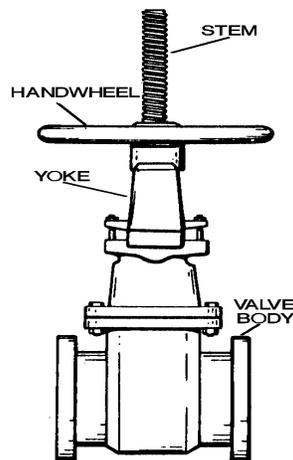
### Fire Extinguisher Inspections

The extinguishers must be inspected and maintained at least once every 6 months. The inspection should evaluate possible damage to the extinguisher, hoses, nozzle and gage. Inspections may be conducted by a representative of the company that holds the maintenance contract for the fire extinguishers. A visual inspection may be conducted by the fire guards themselves. The inspection date and the name of the person who performed the inspection must be recorded on a tag attached to the extinguisher. All inspections must also be recorded in the fire guard's log book.

In addition a fire guard must visually inspect the fire extinguishers daily. The fire guard must make sure that they are positioned in correct locations and clearly visible. When a damaged extinguisher is discovered it must be repaired or replaced immediately. The fire guard must make sure that the fire extinguisher is fully charged. This is checked by looking at the gauge connected to the top of the extinguisher. A needle indicating the condition of the extinguisher is positioned inside the gage. When the needle points to the green area the extinguisher is fully charged. When the needle points to the red area the extinguisher must be recharged. The fire guard must make arrangements to recharge the extinguisher when necessary. All extinguishers must be recharged every six months or after each use.

### **Sprinkler/Standpipe System Inspections**

When a sprinkler and/or standpipe system is installed the fire guard must make sure that the **OS & Y valve** is sealed in the extended position. The OS&Y valve controls the main supply of water into the sprinklers and/or standpipes. the position of the valve is easily determined. When the stem of the OS&Y valve stem is extended the valve is open. When the stem is not extended the valve is closed. These valves are commonly sealed in the extended position using a padlock and



chain. A typical OS&Y valve is shown below:

### **Typical OS&Y Valve**

The fire guard must visually inspect the condition of the sprinkler and standpipe systems. If the

fire guard discovers any defects his must report them to his supervisor. Serious defects such as a sealed or closed water control valve must be reported to the Fire Department. The fire guard must also notify the Fire Department if any parts of the sprinkler or standpipe systems are shut down for repairs. These reports allow the Fire Department to adjust their fire fighting strategies according to the fire protection devices available.

Both the sprinkler and standpipe systems must be inspected monthly by a qualified technician. The technician must hold a Certificate of Fitness for inspecting and maintaining Sprinkler/Standpipe systems.

### **GENERAL SAFEGUARDS**

Flammable and combustible materials must be stored in a safe location. This location must be free of sources of heat and ignition. It is recommended that these materials be stored in an outdoor enclosure.

Trash and garbage must not be allowed to accumulate on the premises. Trash is a fire hazard as it is easily ignited. The fire guard must make sure that trash and garbage is promptly removed from the premises of.

The fire guard must make sure that no smoking is permitted in designated NO SMOKING areas. This is especially important in areas where flammable or combustible materials are stored.

The fire guard must make sure that only approved electrical devices are used. Frayed wires, defective appliances and other potential sources of electrical fire must be repaired or replaced. Fire guards must report any life threatening fire hazards to the Fire Department immediately.