

FIRE DEPARTMENT • CITY OF NEW YORK



**STUDY MATERIAL FOR THE EXAMINATION FOR
CERTIFICATE OF FITNESS
FOR
FUMIGATION AND INSECTICIDAL FOGGING
W-97**

ALSO INCLUDED IN THIS BOOKLET YOU WILL FIND THE FOLLOWING:

NOTICE OF EXAMINATION (NOE)

NOTICE OF EXAMINATION

Title: Examination for Certificate of Fitness for Fumigation and Insecticidal Fogging.

Date of Test: Written tests are conducted Monday through Friday (except legal holidays)
9:00 AM to 2:30 PM

QUALIFICATION REQUIREMENTS

1. Applicants must be at least 18 years of age.
2. Applicants must be certified by NYS DEC with a category *7A or 7B*.
3. Applicants must have a reasonable understanding of the English language.
4. Applicants seeking a COF (**W-97**) for employment with a Fumigation and Insecticidal Fogging Company must submit a letter signed by the owner or principal of the company. Additionally, this letter must state that the company has the tools, materials, and equipment required to properly Fumigation and Insecticidal Fogging service consistent with FC Chapter 17, which regulates fumigation and thermal insecticidal fogging, RCNY §20-09 and FC Chapter 34, which regulates the storage, handling and use of flammable and combustible liquids. Until their company is recognized by the FDNY, applicants will receive a **Z-97**. It will be updated, at no cost to the applicants when their company is recognized. This Certificate, **W-97**, allows holders to work city wide under the supervision of the owner or principal of a recognized Fumigation and Insecticidal Fogging Company.
5. Applicants must present one (1) form of satisfactory identification i.e, driver's license or passport.

Company: The test will only be administered to owners and principals since they must pass their C of F test before applying for their company's approval **until April 1, 2009**.

APPLICATION INFORMATION

Application Fees: \$25.00 for originals and \$15.00 for renewals. The fee may be paid by credit card (no debit), in cash, money order, or personal check payable to New York City Fire Department. The \$25.00 fee must be payable by all applicants prior to taking the Certificate of Fitness test. Application forms are available at the Public Certification Unit, 1st floor, 9 Metro Tech Center, Brooklyn, NY 11201.

TEST INFORMATION

Test: The test will be of the written, multiple choice type. A passing score of at least 70% is required in order to secure a Certificate of Fitness. Call 718-999-1988 or 2504 for additional information and forms.

These study materials will help you prepare for the written examination for the certificate of fitness for fumigation and insecticidal fogging. The study materials include information taken from the New York City Fire Code and Fire Department rules. The study material does not contain all the information you need to know in order to perform the responsibilities of conducting fumigation and thermal insecticidal fogging operations safely. It is your responsibility to become familiar with all applicable laws, rules and regulations of the federal, state and city agencies having jurisdiction, even though such requirements are not included in this study material. You need to be familiar with FC Chapter 17, which regulates fumigation and thermal insecticidal fogging, and FC Chapter 34, which regulates the storage, handling and use of flammable and combustible liquids in order to adequately prepare for the exam. **It is critical that you read AND understand this booklet to help increase your chance of passing this exam.**

About the Test

You must pass a multiple choice test to qualify for the certificate of fitness. A score of 70% correct is required in order to pass the test. All questions have four answer options. Only *one* answer is correct for each question. If you do not answer a question, or if you mark more than one answer to a single question, your answer to that question will be scored as incorrect. Read each question carefully before marking your answer. There is no penalty for guessing.

Sample Questions

1. Who was the first president of the United States?

- (A) George Washington.
- (B) Madonna.
- (C) Abraham Lincoln.
- (D) Elvis Presley.

The correct answer is "A". You would mark "A" on your touch-screen terminal.

2. What sports team plays at Madison Square Garden?

- (A) Yankees.
- (B) Nets
- (C) Cardinals.
- (D) Knicks.

The correct answer is "D". You would mark "D" on your touch-screen terminal.

I. Introduction

This document outlines New York City Fire Department regulations for fumigation and insecticidal fogging operations. Persons engaged in the business of fumigation and thermal insecticidal fogging operations shall obtain a fumigation and thermal insecticidal fogging operation company certificate. The applicant must be licensed by the New York State Department of Environmental Conservation. Fumigation and insecticidal fogging shall be conducted by or under the personal supervision of a person holding a Certificate of Fitness. The Certificate of Fitness holders are responsible for ensuring that all Fire Department regulations related to the safe storage, handling and use of hazardous materials at the work site are complied with. You must be familiar with FC Chapter 17, which regulates fumigation and thermal insecticidal fogging, and FC Chapter 34, which regulates the storage, handling and use of flammable and combustible liquids.

The booklet provides a brief overview of the safety precautions, rules, guidelines, work practices, and emergency procedures for the storage, handling and use of flammable and combustible liquids that are commonly used in fumigation and insecticidal fogging. Each flammable liquid is classified by a hazard classification for flammability, reactivity, and health. The Certificate of Fitness holder must know the properties of each of these flammable liquids and the proper storage, handling and use requirements. He or she must also know the procedures that must be followed when dealing with fire or spill emergencies for these flammable liquids.

FC1701.2 requires that if materials to be fumigated or subject to thermal insecticidal fogging at other than a clients premises, such as in a vault or tank, that a permit be obtained from the Fire Department for the operation of such facility. Such facility will be subject to Department inspection Call 718-999-2533 for further information.

II. Basic Definitions

Combustible Liquid - Any liquid, solid mixture, substance, or compound which emits a flammable vapor at temperatures above 100°F when tested in a Tangliabue open cup tester (e.g., fuel oil.)

Flammable Gas -A gas that will form an explosive mixture upon concentration with air or that will ignite in air. Utility gases piped into laboratories are not considered to be flammable for the purpose of classification under Fire Department regulations.

Flammable Liquid -Any liquid mixture, substance or compound which will emit a flammable vapor at a temperature below 100°F when tested in a Tagliabue open cup tester (e.g., acetone and ethyl alcohol.)

Flashpoint - The minimum temperature of a liquid at which sufficient vapor is produced to form an ignitable mixture in the air near the surface of the liquid. Flashpoint is an indication of the ability of a flammable/combustible liquid to produce flammable vapors - i.e., the lower the flash point, the greater the vapor production, and the greater the fire hazard. It is important to note that it is the vapors produced by the liquid that can ignite and explode, not the liquid itself.

Fumigant. A substance which by itself or in combination with any other substance emits or liberates a gas, fume or vapor utilized for the destruction or control of insects, rats or other vermin or fungi, germs or similar conditions, as distinguished from insecticides and disinfectants which are essentially effective in the solid or liquid phases. Examples are methyl bromide, ethylene dibromide, hydrogen cyanide, carbon disulfide and sulfuryl fluoride.

Fumigation. The utilization within an enclosed space of a fumigant in concentrations that is hazardous or acutely toxic to humans.

Fumigation and thermal insecticidal fogging operation company certificate. A certificate issued by the commissioner to a person engaged in the business of fumigation and thermal insecticidal fogging operations, which authorizes an owner or principal of such business to conduct such fumigation and thermal insecticidal fogging operations, for which such certificate is required by this code or the rules.

Health Hazard -The health hazard signal indicates the property of a material to cause direct or indirect injury; or incapacitation by contact, inhalation, or ingestion. The health hazards arise out of the inherent properties of the material and the toxic products created by the material's combustion or decomposition. The hazard signal is assigned based on the greatest hazard that could exist under fire or other emergency conditions.

HMIS ratings - HMIS is the acronym for Hazardous Materials Identification System. This system serves to classify, through a series of ratings, the chemicals you use in your laboratory and color codes the information for easy recognition. Each rating ranges from 0 to 4. The higher the hazard signal number, the greater the degree of hazard associated with the material. The color codes are as follows, blue, red, orange, and white horizontal bars for the health, flammability, physical hazards and special hazard categories.

Ignition Temperature -The ignition temperature of a solid, liquid, or gas, is the minimum temperature to which it must be heated for it to ignite.

Material Safety Data Sheet (MSDS) -The material safety data sheet (MSDS) contains specific information about the health and physical hazards of the material used, as well as safe work practices and required protective equipment. It may also describe the material's physical characteristics and procedures that should be followed in case of an emergency. For example, the MSDS may list appropriate and inappropriate extinguishing agents. The Certificate of Fitness holder must refer to the MSDS when questions arise about how to handle, use, or store hazardous chemicals or materials.

Non-Flammable or Non-combustible Solution. A non-flammable or non-combustible solution shall mean a solution which has no flashpoint when tested in a Tagliabue Open Cup Tester, suitably modified as to the heating medium.

Portable fire extinguisher. A portable device, carried or on wheels and operated by hand, containing an extinguishing agent that can be expelled under pressure for the purpose of suppressing or extinguishing fire.

Signal Words – Are found on pesticide product labels, and they describe the acute (short-term) toxicity of the formulated pesticide product.

Thermal Insecticidal Fogging. Thermal insecticidal fogging shall mean the use of insecticidal liquids which are passed through thermal fog-generating units where they are by means of heat, pressure and turbulence transferred and discharged in the form of a fog or mist that is to be applied to any area to be treated.

Ultra low volume (cold insecticidal fogging) or other equipment that utilizes insecticidal liquids passed through fog-generating units where, by means of heat, or pressure or turbulence, such liquids are transformed and discharged in the form of fog or mist blown into an area to be treated shall be included within the scope of this regulation.



Typical Equipment Used during Fogging

III. HAZARDOUS IDENTIFICATION

The system was developed by the National Paint and Coatings Association (NPCA) in response to the requirement by the Occupational Safety and Health Administration's (OSHA) Hazard Communication Standard (HCS) that all chemicals in the workplace be labeled.

Health (HMIS® III)

The Health section conveys the health hazards of the material. In the latest version of HMIS®, the blue Health bar has two spaces, one for an asterisk and one for a numeric hazard rating.

If present, the asterisk signifies a chronic health hazard, meaning that long-term exposure to the material could cause a health problem such as emphysema or kidney damage. NFPA lacks this important information because the national fire protection association (NFPA) system is meant only for emergency or acute (short-term) exposures.

According to NPCA, the numeric hazard assessment procedure is different than that used by NFPA. Here are the numeric rankings for the HMIS system:

- 4** Life-threatening, major or permanent damage may result from single or repeated overexposures.
- 3** Major injury likely unless prompt action is taken and medical treatment is given.
- 2** Temporary or minor injury may occur.
- 1** Irritation or minor reversible injury possible.
- 0** No significant risk to health.

Flammability (HMIS® III)

For HMIS I and II, the criteria used to assign numeric values (0 = low hazard to 4 = high hazard) are identical to those used by NFPA. In other words, in this category, the systems are identical. For HMIS III, the flammability criteria are defined according to OSHA standards:

- 4** Flammable gases, or very volatile flammable liquids with flash points below 73 °F and boiling points below 100F. Materials may ignite spontaneously with air. (Class IA).
- 3** Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 °F and boiling points above 100 °F, as well as liquids with flash points between 73 °F and 100 °F. (Classes IB & IC).
- 2** Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at

or above 100°F but below 200 °F. (Classes II & IIIA).

- 1** Materials that must be preheated before ignition will occur. Includes liquids solids and semi solids having a flash point above 200 °F. (Class IIIB).
- 0** Materials that will not burn.

Physical Hazard (HMIS® III)

Reactivity hazard are assessed using the OSHA criterion of physical hazard. Seven such hazard classes are recognized:

- Water Reactive
- Organic Peroxides
- Explosives
- Compressed gases
- Pyrophoric materials.
- Oxidizers
- Unstable Reactives

This version replaces the now-obsolete yellow section titled **Reactivity** - see the previous section for more information. As with the Health and Flammability sections, the level of hazard is indicated using numeric values (0 = low hazard to 4 = high hazard):

- 4** Materials that is readily capable of explosive water reaction, detonation or explosive decomposition, polymerization, or self-reaction at normal temperature and pressure.
- 3** Materials that may form explosive mixtures with water and are capable of detonation or explosive reaction in the presence of a strong initiating source. Materials may polymerize, decompose, self-react, or undergo other chemical change at normal temperature and pressure with moderate risk of explosion.
- 2** Materials that are unstable and may undergo violent chemical changes at normal temperature and pressure with low risk for explosion. Materials may react violently with water or form peroxides upon exposure to air.
- 1** Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.
- 0** Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose , condense, or self-react. Non-explosives.

IV. HANDLING AND STORAGE

Handling - Take prudent precautions to avoid contact with skin, eyes, and clothing. Do not contaminate water, food or feedstuffs by storage, handling or disposal. Read and observe all precautions and instructions on the label.

Storage - Store containers upright and closed. Store in areas that are cool, dry and well-

ventilated. Keep away from heat, open flame, ignition sources, and strong oxidizers. Emptied containers may retain product residues.

KEEP OUT OF REACH OF CHILDREN.

Work hygienic practices - DO NOT SMOKE, EAT, DRINK OR APPLY COSMETICS IN WORK AREA! Wash Promptly if skin becomes contaminated. Wash at the end of each work shift and before eating, smoking and using the toilet.

Electrostatic accumulation - These products may contain petroleum distillates, for which there is the potential for electrostatic accumulation. Proper grounding procedures should be used when transferring this material.

V. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection - When applying as a space spray, wear a respirator with an organic-vapor-removing cartridge with a pre-filter approved for pesticides (MSHA/ NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/ NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P, or HE pre-filter.



Skin protection - Take prudent precautions to avoid contact with skin and clothing.

Eye protection - Take prudent precautions to avoid contact with eyes.













Personal Protection

























This is by far the largest area of difference between the NFPA and HMIS® systems. In the NFPA system, the white area is used to convey special hazards whereas HMIS® uses the white section to indicate what personal protective equipment (PPE) should be used when working with the material.

Note: The NPCA specifically recommends that "preparers of MSDS's **should not place HMIS® PPE designation codes on the MSDS's or labels that leave the facility**, as they do not know the conditions under which their customers use those products." However, these still turn up on some MSDS's.

HMIS® uses a letter coding system for this section. We at ILPI find this unacceptable because we would rather see the PPE listed explicitly instead of having employees try to remember a bunch of codes or consult a chart, something that could lead to confusion and/or a fatal accident. Likewise, the "custom codes" aspect is particularly dangerous for visitors and contractors who may not remember/recognize that these could vary from job site to job site.

We present the lettering scheme here, along with a series of graphics meant to reinforce the meaning of each letter:

HMIS® Letter	Required Equipment
A	 Safety Glasses
B	 Safety Glasses  Gloves
C	 Safety Glasses  Gloves  Protective Apron
D	 Face Shield  Gloves  Protective Apron
E	 Safety Glasses  Gloves  Dust Respirator

F	 Safety Glasses	 Gloves	 Protective Apron	 Dust Respirator	
G	 Safety Glasses	 Gloves	 Vapor Respirator		
H	 Splash Goggles	 Gloves	 Protective Apron	 Vapor Respirator	
I	 Safety Glasses	 Gloves	 Dust Respirator	 Vapor Respirator	
J	 Splash Goggles	 Gloves	 Protective Apron	 Dust Respirator	 Vapor Respirator
K	 Air Line Mask or Hood	 Gloves	 Full Suit	 Boots	
L through Z	Site-specific label. Ask your supervisor or safety specialist for handling instructions				

VI. POTENTIAL HEALTH EFFECTS

The U.S. Environmental Protection Agency (EPA) requires a signal word on most pesticide product labels. They also require it to be printed on the front panel, in all capital letters to make it easier for users to find. The only pesticide products that are not required to display a signal word are those that fall into the lowest toxicity categories by all routes of exposure

Signal Words found on pesticide labels can be either: **DANGER**, **WARNING** or **CAUTION**.

DANGER – Means the pesticide product is highly toxic by at least one route of exposure. If the pesticide is highly toxic when eaten, absorbed through the skin, or inhaled, the word “POISON” must be included in RED letters on the front panel of the product label.

WARNING - Indicates the pesticide product is moderately toxic if eaten, absorbed through the skin, inhaled, or causes moderate eye or skin irritation.

CAUTION - Means the pesticide product is slightly toxic if eaten, absorbed through the skin,

inhaled, or it causes moderate eye or skin irritation.

It is recommended after fogging or fumigation that you provide the full written instructions to the client about post operations. Checklist items 17-23 can be provided in a separate sheet. You do not need provide the entire checklist to the client. The client should sign that they received they received the instructions. If the clients refuse to sign it or chose not to sign, simply note it on the checklist.

TYPES OF EXPOSURE

Eye contact – May cause temporary irritation, tearing, and blurred vision and is the most readily absorbent body part.

Skin contact – May cause skin irritation. Can cause a burning or pricking sensation on more sensitive areas (face, eyes, mouth) Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Skin Absorption – Harmful if absorbed through the skin.

Ingestion – May be harmful if swallowed. Small amounts aspirated into the respiratory system during ingestion or vomiting may cause mild to severe lung injury.

Inhalation – Harmful if inhaled.

VII. FIRST AID PROCEDURES

Eyes - Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin - Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

Inhalation - Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Ingestion - Immediately call a poison control center or doctor for treatment advice. **DO NOT** give any liquid to the person. Do not induce vomiting unless told to do so by a poison control center or doctor. Never give anything by mouth to an unconscious person.

Note to physicians: This product may contain Pyrethroids and Petroleum Distillates; Vomiting may pose an aspiration pneumonia hazard. For skin effects, a highly efficient therapeutic agent for Pyrethroid exposure is topical application of Tocopherol Acetate.

For Information regarding medical Emergencies or Pesticide incidents call the International poison center at: 1-888-740-8712 in the United States and Canada or 651-632-6191 from all other areas.

VIII. FIRE SAFETY REQUIREMENTS

Fumigation and thermal insecticidal fogging operations in buildings, structures and spaces shall be conducted in compliance with the following fire protection and safety requirements.

For heat based application, the temperature gauge of fog generator shall be read at frequent intervals. If the temperature rises above normal operating temperature, the generator shall be shut down immediately and the necessary adjustment made. When liquids having a flash point are used, the liquid in the fog generator shall have a flash point at least 40°F higher than the surrounding temperature of the area to be fogged.

Sources of ignition. Open flames and similar sources of ignition shall be removed from the space in which fumigation or thermal insecticidal fogging operations are being conducted.

Electricity. Electricity in any part of the building or structure where operation of switches or electrical devices, equipment and systems could serve as a source of ignition during and for a reasonable time after any fumigation or thermal insecticidal fogging operation shall be shut off.

Exception: Circulating fans that have been specifically designed for utilization in hazardous atmospheres and installed in accordance with the Electrical Code.

Electronic devices. Electronic devices, including portable equipment and cellular phones, shall be shut off. Telephone lines shall be disconnected.


Fire alarm systems. Fumigation and insecticidal fogging operations may require that fire alarm systems be taken out of service during such operation to avoid unwarranted alarms. Fire alarm systems that are taken out of service shall comply with the requirements of FC901.7.4 and Fire Department rule 17-06. The date and time the alarm system was taken off-line, the reason for such action, the name and operator number of the person notified at the central station (or other evidence of notification satisfactory to the Department), and the date and time the system was restored to service, shall be entered in the alarm log book in each such circumstance. RCNY Vol 2 T3 17-06

Notification. The department shall be notified in writing at least 48 hours to FDNY's Field Public Communication unit by faxing it to 718-999-7108 or writing to the FDNY 9 Metro tech Center Field/Public Communications Brooklyn, N.Y. 11201. Notification shall give the location of the enclosed space to be fumigated or thermal fogged, the occupancy, the fumigants or insecticides to be utilized, the person or persons responsible for the operation, and the date and time at which the operation will begin. Cold ULV fogging does not require any notification. Written notice of any fumigation operation shall be given to all affected

occupants of the building, structure or portion thereof in which such operations are to be conducted, with sufficient advance notice to allow all such spaces to be vacated in an orderly manner. Such notice shall inform the occupants as to the purposes and anticipated duration of the fumigation operations.

NFPA 704 hazard warning system is especially useful for warning of fire related hazards of these materials.

Fumigation warning sign

<p>DANGER</p> <p>FUMIGATION IN PROGRESS</p> <p>On Dec 14, 2001 at 1:00 pm, this building, 3232 78th St., will be fumigated by the ACME Pest Control Co. all occupants must evacuate the premises no later than Noon that day.</p> <p>It is UNLAWFUL and DANGEROUS to reenter this building while this notice is posted.</p>	
	<p>HAZARD INFORMATION ALUMINUM PHOSPHIDE</p> <p>Flammable solid, poison dangerous when wet. Produces Phosphine gas in water Stay upwind, wear special protective clothing. Contain runoff.</p> <p>see MSDS</p>

Warning signs. Approved warning signs indicating the danger, type of chemical involved and necessary precautions shall be posted on all doors and entrances to the premises and upon all gangplanks and ladders from the deck, pier or land to the marine vessel. Such notices shall be printed in red ink on a white background. Letters in the headlines shall be at least 2 inches (51 mm) in height and shall state the date and time of the operation, the name and address of the person conducting the fumigation or thermal insecticidal fogging, the name of the operator in charge, and a warning stating that the occupied premises shall be vacated at least 1 hour before the operation begins and shall not be reentered until the danger signs have been removed by the proper authorities. Advance notice shall be given to all occupants of the building or structure where fumigation and thermal insecticidal fogging operations are to be conducted to warn of the hazards of such operation.

Warning signs or placard shall read:

WARNING — **DO NOT ENTER** — **NO SMOKING**
 PREMISES BEING (Name of insecticide and name of solution)
 FOGGED WITH: _____

FOGGER: _____ ADDRESS: _____

PHONE: _____ NAME OF OPERATOR: _____

Watch personnel. During the period fumigation is in progress, except when fumigation is conducted in a gas-tight vault or tank, a capable, alert watcher shall remain on duty at the entrance or entrances to the enclosed fumigated space until after the fumigation is completed and the premises is properly ventilated and safe for occupancy. Sufficient watchers shall be provided to prevent persons from entering the enclosed space under fumigation. The watch personnel must be able to report emergencies without leaving their posts.

Prohibited thermal insecticidal fogging liquids. It shall be unlawful to use thermal insecticidal fogging liquids with a flash point below 100 degrees F (38 degrees C).

Wrapping of buildings. Paper and other similar combustible materials that are not flame resistant shall not be used to wrap or cover a building in excess of that required for the sealing of cracks, casements and similar openings.

Ventilation and cleanup. At the end of the exposure period, fumigators shall safely and properly ventilate the premises and contents; properly dispose of fumigant containers, residues, debris and other waste materials; and clear obstructions from gas-fired appliance vents.

Flammable fumigants restricted. It shall be unlawful to use carbon disulfide and hydrogen cyanide for fumigation unless conducted on a premises used solely for agriculture.

IX. ACCIDENTAL RELEASE MEASURES

Small spill - Shut off ignition sources. Stop release, if possible without risk. Dike or contain release, if possible, and if immediate response can prevent further damage or danger. Isolate and control access to the release area. Take actions to reduce vapors. Absorb with appropriate absorbent. Clean spill area of residues and absorbent.

Large spill - Shut off ignition sources. Stop release, if possible without risk. Dike or contain release, if possible, and if immediate response can prevent further damage or danger. Isolate and control access to the release area. Take actions to reduce vapors. Collect product into drums, etc. via drains, pumps, etc. Absorb with appropriate absorbent. Clean spill area of residues and absorbent.

Waste disposal method - Contaminated absorbent and wash water should be disposed of according to local, state, and federal regulations.

X. FIRE FIGHTING MEASURES

To report a FIRE - Dial 911 or the appropriate borough communication office.

Emergency Procedures

The Certificate of Fitness holder must know the locations of and how to operate all fire extinguishing devices, control devices, and fire alarm stations installed at the facility. In case of a fire, explosion, major spill or emergency, the Certificate of Fitness (C of F) holder must notify the Fire Department by phone immediately. The Certificate of Fitness holder must know the telephone number of the Fire Department Borough Communication Office. The borough phone numbers are listed below. These phone numbers must be posted near the phones most likely to be used in case of an emergency.

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

After notification by phone, the local fire alarm must be sounded. In some cases, the activation of the fire alarm will transmit a signal to the Fire Department via an approved central station company. The Certificate of Fitness holder must answer any questions asked by the firefighters when they arrive. For example, he or she must indicate the location of the fire, describe the type of fire protection devices available, and describe the materials stored on the fire floor. The Bureau of Fire Prevention must be notified as soon as possible after an explosion or fire has occurred. The Bureau of Fire Prevention may require a detailed report on the causes and the consequences of the explosion or fire. Generally, this report must be filed within ten days after the incident.

Hazardous combustion products - Under fire conditions this product will support combustion and may decompose to give off toxic gases such as carbon monoxide, carbon dioxide, nitrogen oxides.

Fire fighting instructions - Treat as an oil fire. Keep personal removed and upwind of fire. Keep nearby containers and equipment cool with a water spray. Contain the run-off, if possible, for proper disposal.

Extinguishing media - Foam, carbon dioxide, or dry chemical. Portable Fire Extinguisher Requirements. A portable fire extinguisher with at least a 20-B rating shall be provided and kept readily accessible during fumigation or insecticidal fogging operations.

CLASSIFICATION OF FIRES AND FIRE EXTINGUISHERS

The classification of portable fire extinguishers consists of a letter that indicates the Class of

Fire on which a fire extinguisher has been found effective. In addition, fire extinguishers classified for Class A or Class B fires are required to have a rating number indicating the relative extinguishing effectiveness preceding the classification letter. Some fire extinguishers may have more than one letter classification such as 2-A: 20-B: C. This classification means that this portable fire extinguisher has an effectiveness of 2 when used to extinguish Class A fires, and an effectiveness of 20 when used to extinguish Class B and/or Class C fires. Fire extinguishers classified for Class C, Class D or Class K fires are not required to have a rating number preceding the classification letter.

Classification of fires: Fires are classified into five (5) classes. They are described below:

Class A fires are fires in ordinary combustible materials, such as woods, cloth, paper, rubber, and many plastics.

Class B fires are fires in flammable liquids, combustible liquids, petroleum greases, tars, oils, oil-based paints, solvents, lacquers, alcohols, and flammable gases.

Class C fires are fires that involve energized electrical equipment where the electrical non-conductivity of the extinguishing media is of importance.

Class D fires are fires in combustible metals, such as magnesium, titanium, zirconium, sodium, lithium and potassium.

Class K fires are fires in cooking appliances that involve combustible cooking media (vegetable or animal oils and fats).

INSPECTION OF PORTABLE FIRE EXTINGUISHERS

General

Inspection is a "quick check" that a portable fire extinguisher is available and will operate. It is intended to give reasonable assurance that the portable fire extinguisher is fully charged and operable. This is done by verifying that it is in its designated place, that it has not been actuated or tampered with, and that there is no obvious or physical damage or condition to prevent its operation. 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 gauge. 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. Arrangements must be made to recharge the extinguishers when necessary. All extinguishers must be recharged every six months or after each use. The testing date and the technician's name must be recorded on a tag attached to the extinguisher. All inspections must be recorded in log book.

Basically, inspection means a **visual** examination of the portable fire extinguisher. According to 3RCNY, **inspecting** a portable fire extinguisher is not considered **servicing** of a portable fire extinguisher. A certificate of fitness **is not** required to perform this inspection. Portable fire extinguishers must be inspected when initially placed in service and at least monthly thereafter. Portable fire extinguishers must be inspected more frequently when circumstances require.

Inspections may be conducted by a representative of the company that holds the maintenance contract for the fire extinguishers.

Inspectional Procedures

Periodic inspection of portable fire extinguishers must include a check of at least the following items:

- (a) Location in designated place
- (b) No obstruction to access or visibility
- (c) Operating instructions on nameplate legible and facing outward.
- (d) Safety seals and tamper indicators not broken or missing.
- (e) Fullness determined by weighing or "hefting".
- (f) Examination for obvious physical damage, corrosion, leakage, or clogged nozzle.
- (g) Pressure gauge reading or indicator in the operable range or position.
- (h) Condition of tires, wheels, carriage, hose, and nozzle checked (for wheeled units).
- (i) HMIS label in place.

When an inspection of **any portable fire extinguisher** reveals a deficiency in any of the conditions listed in (a), (b), (h), and (i), immediate corrective action must be taken.

When an inspection of **rechargeable portable fire extinguishers**, reveals a deficiency in any of the conditions listed in (c), (d), (e), (f), and (g), they must be subjected to applicable maintenance procedures.

When an inspection of **non-rechargeable dry chemical portable fire extinguishers** reveals a deficiency in any of the conditions listed in (c), (e), (f), and (g), they must be removed from service, discharged, and destroyed at the direction of the owner or returned to the manufacturer.



ABC Type Fire Extinguishers-FREE HAZMAT SHIPPING!

Excel Line(TM) nylon-valved fire extinguishers with aluminum cylinders are best suited for light commercial applications.



Carbon Dioxide Fire Extinguishers

These units are ideal for areas where contamination and/or clean-up are a concern, such as data processing centers, labs, telecommunication rooms, food storage and processing areas.



Halotron Fire Extinguishers

These units are suitable for use in computer rooms, telecommunications and high-tech clean rooms.



Type K Wet Chemical Fire Extinguishers

These fire extinguishers are typically required in a commercial kitchen setting.



Water Fire Extinguishers

Excellent choice for schools, storerooms, attics, barns and dry good stores.



Regular Dry Chemical (Class B, C) Fire Extinguishers

These extinguishers are ideal for automotive, garages, boats and laboratories.



Purple K Type Dry Chemical Fire Extinguishers

Common applications are military facilities, oil refineries, airport ramps, service stations and transfer areas.



Foam Fire Extinguishers

Applications include manufacturing facilities, construction sites, commercial storage areas, service shops, racetracks and fueling areas.



Cartridge Operated Fire Extinguishers

These units are ideal for high-hazard areas where fast, effective fire protection is needed, such as mining, utilities, forestry, transportation, petroleum and heavy industry.

Wheeled Deluxe Fire Extinguishers

Applications include petroleum plants, airports, large storage facilities, construction sites and equipment depots.



Fire Extinguisher Cabinets & Bags: Plastic, Metal, and Fiberglass

- Plastic, Metal, and Fiberglass
- All Sizes Available
- For All Types of Extinguishers



Type D Metal Fire Extinguishers

The check list

The purpose of the **FDNY CHECKLIST** is to ensure that standardized processes are followed at all times by Certificate of Fitness holders. Many of the steps are commonly known by technicians but relying simply on memory can lead to significant errors or forgotten steps by C of F holders. The checklist also allows C of F holders to document their actions at the work site. After completion of the CHECKLIST, one C of F holder must sign the final report. All items on the checklist must be completed.

The N/A appears when the answer is non-applicable. On the back of the checklist, there is space for additional comments.

Citywide companies (W-97) and all C of F holders must complete this Checklist. If any Items have an (**M**- Mandatory), they have high safety importance. All M's must be performed as required by the NYC code regulations. This check list is important since public safety may be jeopardized by not following required action. The check list will be covered in the exam.

Re: Business name: _____
 Address: _____
 City & State: _____
 Phone: _____
 I have received post application instructions (#17- 23).
 Name _____
 Signature: _____ Date: _____

Company any Name
Address
City, ST, Zip Code
CO Certification #

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

<input checked="" type="checkbox"/> Applications that required to do the Item #					
A. Pre-Application	Fumigati on	Thermal Fogging	Cold ULV Fogging	Response	Comments
1. Have you notified the FDNY in writing (Fumigation / thermal fogging)? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input type="checkbox"/> Yes <input type="checkbox"/> No	Date of Notifications _____
2. Have you notified the Bldg occupants in the space to be fogged be evacuated? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name: _____
3. Have you placed warning signs or placard on all doors & entrances, etc., M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain reasons on back of page in comments section.
4. Have you provided detail info about the procedures before and after to the owner, occupants and property? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name: _____
5. Are you wearing your personal protective safety equipment? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain reasons on back of page in comments section.
6. Have pilot lights shut off, compressor and appliances have been disconnected? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain reasons on back of page in comments section.
7. Have the electronic devices, portable equipment, cellular & telephone lines disconnected? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain reasons on back of page in comments section.
8. Is all openings to the space to be fumigated or fogged securely closed and sealed the cracks and casements? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain reasons on back of page in comments section.
9. Have you read and understood label directions? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain reasons on back of page in comments section.
10. Have smoke detectors been taken off line in the affected area? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain reasons on back of page in comments section.
11. Has central station been notified that smoke detector is off line? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain reasons on back of page in comments section.
12. Is a portable fire extinguisher with at least 20-B rating available? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain reasons on back of page in comments section.
B. During application					
13. Are you wearing proper gear according to label directions? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain reasons on back of page in comments section.
14. Is there watch person present while you fumigate? M	<input checked="" type="checkbox"/>			<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain reasons on back of page in comments section.
15. Start at the furthest point & work towards your exit.	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain reasons on back of page in comments section.
C. Post-Applications					
16. Has the designated person checked the premise after completion? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name: _____
17. Have you turned on ventilation system and all windows on to properly ventilate rooms? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain reasons on back of page in comments section.
18. Have you properly instructed the bldg owner or client of the ventilation necessary adhering to the label instructions after completion? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name: _____
19. Have you properly instructed the bldg owner or client of sanitary clean up?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	
20. Have the appliance(s) been reconnected? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain reasons on back of page in comments section.
21. Have smoke detectors been put back on line? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain reasons on back of page in comments section.
22. Has central station begin notified that smoke detector is back online? M	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name: _____
23. Have you obtained signature from client?				<input type="checkbox"/> Yes <input type="checkbox"/> No	If no, explain reasons on back of page in comments section.

