

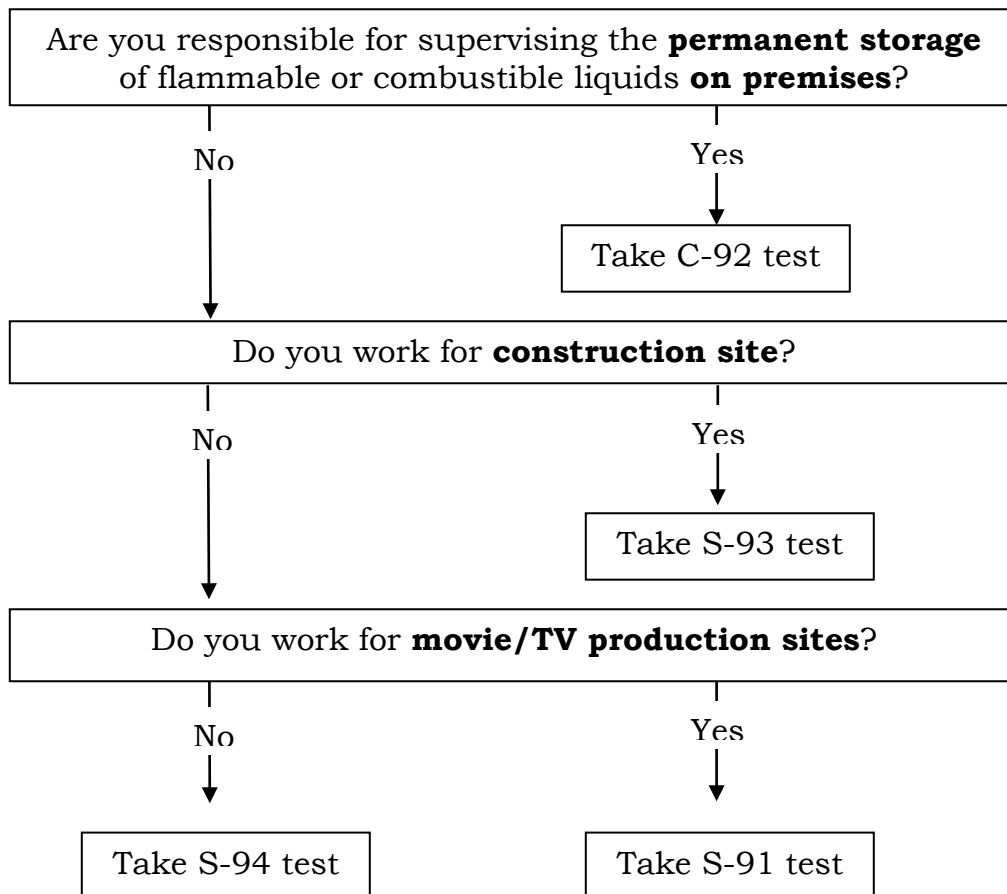
FIRE DEPARTMENT • CITY OF NEW YORK



**STUDY MATERIAL FOR THE
CITYWIDE CERTIFICATE OF FITNESS EXAMINATION**

**SUPERVISION OF DISPENSING FLAMMABLE AND COMBUSTIBLE LIQUIDS
AT MOVIE/TV PRODUCTION SITES (CITYWIDE) (S-91)**

This study material is provided to the public for free by the FDNY.



All applicants are required to apply and pay for an exam online before arriving at the FDNY. It can take about 30 minutes to complete.

Simplified instructions for online application and payment can be found here:

<http://www1.nyc.gov/assets/fdny/downloads/pdf/business/fdny-business-cof-individuals-short.pdf>

Create an Account and Log in to:

<http://fires.fdnyccloud.org/CitizenAccess>

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NOTICE OF EXAMINATION

Title: Certificate of Fitness for Supervision of Dispensing Flammable And Combustible Liquids at Movie/Tv Production Sites (S-91).

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<http://fires.fdnyccloud.org/CitizenAccess>

REQUIREMENTS FOR WRITTEN EXAM

Applicants must be at least 18 years of age and must have a reasonable understanding of the English language. Applicants must apply the exam in person and bring the following materials and required fee:

1. **Identification.** Applicant must provide two forms of identifications; at least one form of identification must be government issued photo identification, such as a State-issued Drivers' License or Non Driver's License or a passport.
2. **Letter of Recommendation.** 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. For more info:
 - Sample of recommendation letter:
<http://www1.nyc.gov/assets/fdny/downloads/pdf/business/cof-samplerec-letter.pdf>
 - Sample of self-employed letter:
<http://www1.nyc.gov/assets/fdny/downloads/pdf/business/cof-sample-selfrec-letter.pdf>
3. **A-20.** Applicants must present a completed application for certificate of fitness (A-20 Form).
<http://www1.nyc.gov/assets/fdny/downloads/pdf/business/cof-application-form.pdf>
4. **Without Required Documentation.** Applicants not currently employed may take the exam without the required documentation. If the applicants pass the exam, 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 all of the required documentation. *(Exception: If COF has a school requirement, applicant will not be allowed to take COF exam until school is completed.)*

This study material is provided to the public for free by the FDNY. I

5. **Special requirements for the:** S-91 C of F applicants: None

6. **APPLICATION FEE:**

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

- Cash
- Credit card (*American Express, Discover, MasterCard, or Visa*)
- Debit card (*MasterCard or Visa*)
- Personal or company check or money order (*made payable to the New York City Fire Department*)

A convenience fee of 2% will be applied to all credit card payments.

For fee waivers submit: ***(Only government employees who will use their C of F for their work-related responsibilities are eligible for fee waivers.)***

- A letter requesting fee waiver on the Agency's official letterhead stating applicant full name, exam type and address of premises; **AND**
- Copy of identification card issued by the agency

EXAM INFORMATION

The **S-91** exam will consist of **20** multiple-choice questions, administered on a "touch screen" computer monitor. It is a time-limit exam. Based on the amount of the questions, you will have 30 minutes to complete the test. A passing score of at least 70% is required in order to secure a Certificate of Fitness.

Call (718) 999-1988 for additional information and forms.

Please always check for the latest revised booklet at FDNY website before you take the exam.

<http://www1.nyc.gov/assets/fdny/downloads/pdf/business/cof-s91-noe-study-materials.pdf>

If all the requirements are met and pass the exam a certificate will be issued the same day. Applicant who fails the exam will receive a failure report. To retake the exam applicants will need to submit a new application and payment.

OTHER RELATED FEES

To change a mailing address:

- Submit a letter requesting the change of mailing address and a copy of your C of F with \$5.00 fee.

To change a work location,

- Submit a letter from your current employer (on company letterhead) confirming that you are an employee and stating your new work location with a copy of your C of F and a \$5.00 fee

To request a replacement certificate:

- Submit a driver's license or passport, social security number, mailing address and a \$5.00 fee.

RENEWAL REQUIREMENTS

This Certificate of Fitness must be renewed every **THREE YEARS**. The renewal fee is **\$15**. FDNY also reserves the right to require the applicants to take a re-examination upon submission of renewal applications.

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

The certificate can be renewed On-line, by Mail or in Person.

• **Renewal online**

If you are an individual, make sure you have your 12 digit Certificate of Fitness Access ID. This can be found on your Renewal Notice. If you do not have your Renewal Notice, your Access ID is your 8 digit Certificate of Fitness number and the last four digits of your social security number. If you are submitting renewals on behalf of a company's employees, the company must be approved by FDNY and have an 8 digit Company Code. To request approval, email pubrenew@fdny.nyc.gov.

Renewal fee can be paid by one of the following methods:

- Credit card (American Express, Discover, MasterCard, or Visa)
- Debit card (MasterCard or Visa)
- E-check

A fee exempted applicants cannot renew online only by mail or in person.

If all the requirements are met, the certificate of fitness will be mailed out within 10 days.

For online renewal go to: <https://a836-citypay.nyc.gov/citypay/FDNYCOF>

• **Renewal by mail**

Mail your Renewal Notice (or if you did not receive a Renewal Notice, a copy of your certificate), along with your fee payment, Personal or company check or money order (made payable to the New York City Fire Department)

For fee waivers submit: ***(Only government employees who will use their C of F for their work-related responsibilities are eligible for fee waivers.)***

- A letter requesting fee waiver on the Agency's official letterhead stating applicant full name, exam type and address of premises; **AND**
- Copy of identification card issued by the agency and if applicable, supporting documents to:

NYC Fire Department (FDNY)
Cashier's Unit
9 MetroTech Center, 1st Floor
Brooklyn, NY 11201

If all the requirements are met, the certificate of fitness will be mailed out within four to six weeks.

- **Renewal in person**

Submit your Renewal Notice (or if you did not receive a Renewal Notice, a copy of your certificate), along with your fee payment by one of the following methods:

- Cash
- Credit card (*American Express, Discover, MasterCard, or Visa*)
- Debit card (*MasterCard or Visa*)
- Personal or company check or money order (*made payable to the New York City Fire Department*)

A convenience fee of 2 % will be applied to all credit card payments for original or renewal certificates.

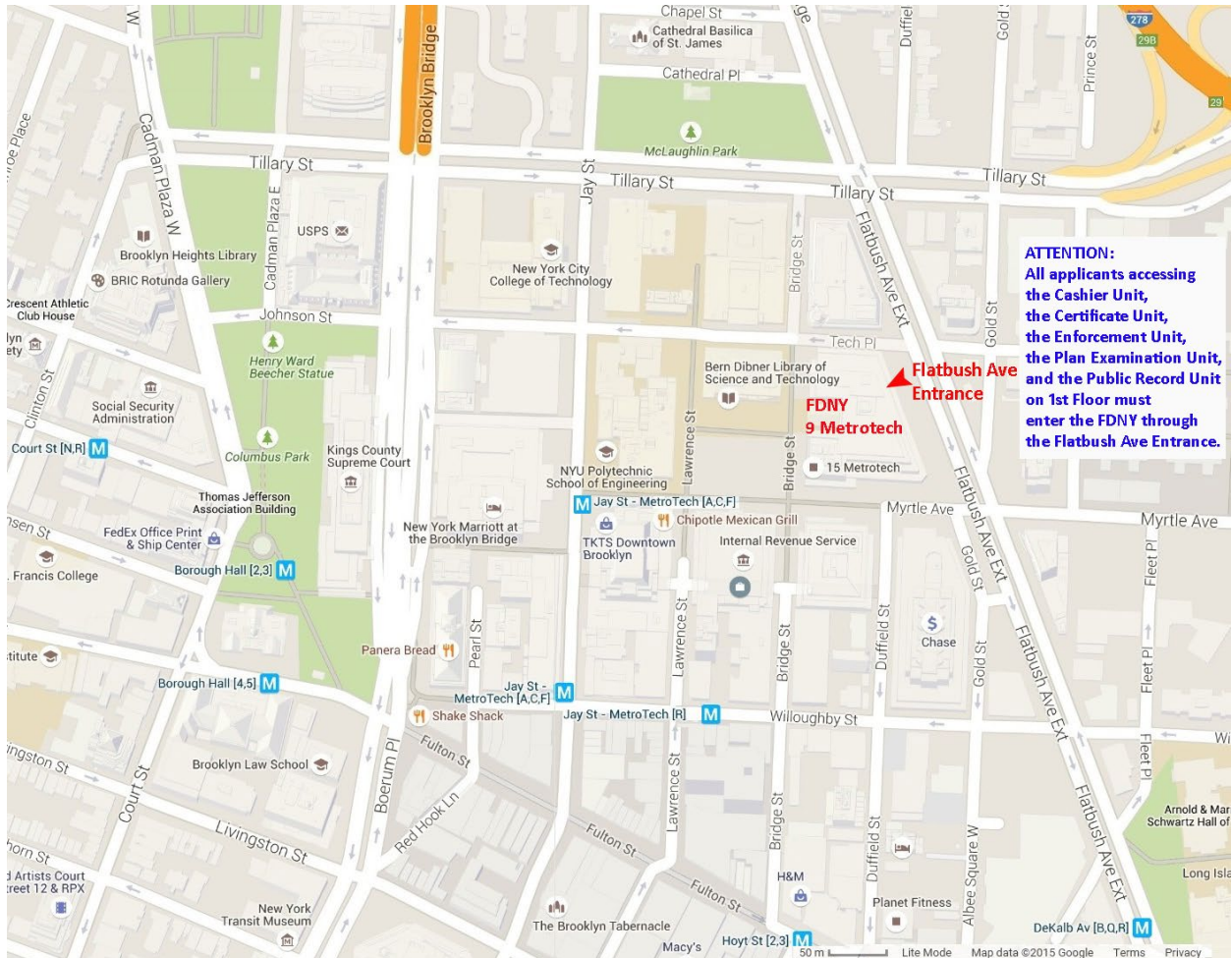
For fee waivers submit: ***(Only government employees who will use their C of F for his or her work-related responsibilities are eligible for fee waivers.)***

- A letter requesting fee waiver on the Agency's official letterhead stating applicant full name, exam type and address of premises; **AND**
- Copy of identification card issued by the agency and if applicable, your supporting documents to:

NYC Fire Department (FDNY)
Cashier's Unit
9 MetroTech Center, 1st Floor
Brooklyn, NY 11201

If all the requirements are met, the certificate of fitness will be issued the same day.

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



STUDY MATERIAL AND TEST DESCRIPTION

This study material will help you prepare for the Certificate of Fitness test for supervising temporary storage and dispensing flammable or combustible liquids at movie/TV production sites. The study material **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 supervise the storage and dispensing flammable and combustible liquids. 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. You should read the Fire Code Chapter 27 and 34, and NFPA 30 which regulate the storage, handling and use of flammable or combustible liquids in order to adequately prepare for the exam.

If you are responsible for supervising **PERMANENT STORAGE of flammable or combustible liquids** on premises and the storage requires a FDNY permanent permit, you should take **the C-92 Certificate of Fitness** test: supervising storage, handling, and use of flammable or combustible liquids. If you are responsible for supervising the **temporary storage, dispensing and use** of flammable or combustible liquids on **construction site** requiring a FDNY permit, you should take the **S-93 Certificate of Fitness** test.

About the Test

All 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 License. Read each question carefully before marking your answer. There is no penalty for guessing.

Sample Questions

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

1. Which of the following are allowed to be used/displayed while taking a Certificate of Fitness examination at 9 Metro Tech Center?

- I. cellular phone**
- II. study material booklet**
- III. reference material provided by the FDNY**
- IV. mp3 player**

- A. III only
- B. I, II, and III
- C. II and IV
- D. I only

Only reference material provided by the FDNY is allowed to be used during Certificate of Fitness examinations. Therefore, the correct answer would be 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" on the computer terminal screen.

1. GENERAL REGULATIONS

This document outlines New York City Fire Department regulations for temporary storage and dispensing flammable and combustible liquids. According to the FDNY regulations, a Certificate of Fitness is needed for general supervision of the storage and personal supervision of the dispensing of flammable and combustible liquids.

Variance, Permit and Certificate of Fitness Requirement

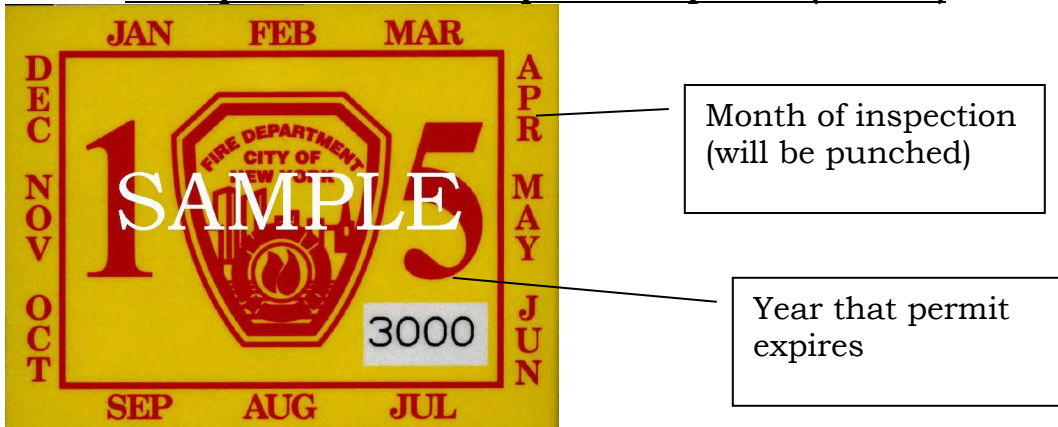
A modification (variance) must be applied for the dispensing operation for fueling generators, campers and other production vehicles. An application (BFP-MOD) for modification (variance) of provisions of the New York City Fire Code or Fire Department Rules shall be submitted and approved prior to dispensing operations.

In addition to the variance, FDNY transportation permit (sticker) and approval letter issued by the Hazardous Cargo Vehicle Inspection Unit are also required. The permit and the approval letter will be issued after the tank truck passing the inspection.

The FDNY transportation permit (sticker) must be displayed on the tank truck. A copy of the approved variance and the approval letter shall be kept in the vehicle performing the dispensing operation at all time, and shall be presented to the FDNY upon request.

The fuel truck driver must be an S-91 Certificate of Fitness holder. **The Certificate of Fitness holder must keep the Certificates of Fitness upon his or her person or otherwise readily available for inspection by any representative of the Department, at all times while conducting or supervising the material, operation or facility for which the certificate is required.**

Example of FDNY Transportation permit (sticker)



Example of an approval letter



F I R E D E P A R T M E N T

**H a z a r d o u s C a r g o V e h i c l e
I n s p e c t i o n U n i t**

245 Meserole Ave. Brooklyn, NY 11222

Phone: (718) 752-0296 / 0341 Fax: (718) 752 - 0402

Date: _____

Account No.: _____

Permit No.: _____
(Sticker No.)

Name & Address of Permit Applicant,

The above referenced company has made an application for a (Transportation /
Citywide) permit to Transport and or use:

And the Vehicle / Trailer was inspected satisfactorily on ___ / ___ / ___.

The approval applies only to the Vehicle / Trailer listed below:

Truck No. _____ Trailer No. _____

Make of truck: _____ Year: _____ Identification No. _____

Make of trailer: _____ Identification No. _____

Inspected By: _____
Badge No.

Note: PERMIT EXPIRES (1) ONE YEAR FROM THE ABOVE DATE.

**THIS LETTER SHALL BE CARRIED IN THE CAB OF THE TRUCK AND IT
SHALL BE PRESENTED UPON REQUEST TO FIRE DEPARTMENT
REPRESENTATIVE.**

Chief of Fire Prevention

Safety Data Sheets (SDS)

Safety Data Sheet (SDS) information should be readily available. The material safety data sheet (SDS) 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 SDS may list appropriate and inappropriate extinguishing agents. The Certificate of Fitness holder must refer to the SDS when questions arise about how to handle, use, or store hazardous chemicals or materials. The SDS may also be requested by health care personnel to facilitate proper medical care in the event of chemical exposure.

Class of Flammable and Combustible Liquids

For the current fire code, there are 3 classes of flammable liquids and 3 classes of combustible liquids defined as the following table.

Class of Flammable and Combustible Liquids

		Flash point	Boiling point	Examples
Flammable liquids (Class I liquids)	Class IA	< 73°F	< 100°F	Gasoline, Acetaldehyde, Ethyl ether, formate, Pentane
	Class IB	< 73°F	≥ 100°F	Acetone, Ethanol, Methyl alcohol, Propyl alcohol
	Class IC	≥ 73°F but < 100°F	Not Applicable	Turpentine, Butyl alcohol, Hydrazine, Styrene
Combustible liquids (Class II & III liquids)	Class II	≥ 100°F but < 140°F	Not Applicable	Kerosene, Diesel , WD-40 lubricant
	Class IIIA	≥ 140°F but < 200°F	Not Applicable	Butyric Acid, Creosote Oil
	Class IIIB	≥ 200°F	Not Applicable	Formalin, Glycerine, Picric acid, Propylene glycol

2. DEFINITION

CARGO TANK. A vehicle other than a railroad tank car or marine vessel, with a tank mounted thereon or built as an integral part thereof, used for the transportation of flammable or combustible liquids, LPG or other hazardous materials, including self-propelled vehicles and full trailers and semi-trailers, with or without motive power, and carrying part or all of the load.

COMBUSTIBLE LIQUID. For purposes of transportation, a combustible liquid, as defined in the regulations of the United States Department of Transportation, as set forth in 49 CFR Section 173.120. For all other purposes, a liquid, other than a compressed gas or cryogenic fluid, having a closed cup flash point at or above 100°F (38°C), classified as follows:

Class II. Liquids having a closed cup flash point at or above 100°F (38°C) and below 140°F (60°C).

Class IIIA. Liquids having a closed cup flash point at or above 140°F (60°C) and below 200°F (93°C).

Class IIIB. Liquids having closed cup flash points at or above 200°F (93°C).

CONTAINER. For solid and liquid hazardous materials, a vessel of 60 gallons (227 L) or less in capacity used for storage or transportation. For compressed gases, a cylinder, pressure vessel or tank designed for pressures greater than one atmosphere at 68°F (20°C). Pipes, piping systems, engines and engine fuel tanks associated with solid or liquid hazardous materials or compressed gases, shall not be deemed to be containers if in active use.

DISPENSING. The pouring or transferring by other means of any material from a container, tank or similar vessel, which would release dusts, fumes, mists, vapors or gases to the atmosphere, unless such release is prevented by a device, equipment or system designed for that purpose.

FLAMMABLE LIQUID. For purposes of transportation, a flammable liquid defined in the regulations of the United States Department of Transportation, as set forth in 49 CFR Section 173.120. For all other purposes, a liquid, other than a compressed gas or cryogenic fluid, having a closed cup flash point below 100°F (38°C), classified as follows:

Class IA. Liquids having a flash point below 73°F (23°C) and having a boiling point below 100°F (38°C).

Class IB. Liquids having a flash point below 73°F (23°C) and having a boiling point at or above 100°F (38°C).

Class IC. Liquids having a flash point at or above 73°F (23°C) and below 100°F (38°C).

FLASH POINT. The minimum temperature in degrees Fahrenheit at which a liquid will give off sufficient vapors to form an ignitable mixture with air near the surface or in the container, but will not sustain combustion. The flash point of a liquid shall be determined by appropriate test procedure and apparatus as specified in ASTM D 56, ASTM D 93 or ASTM D 3278.

GENERAL SUPERVISION. Supervision by the holder of any department certificate who is responsible for performing the duties of the certificate holder but need not be personally present on the premises at all times.

HANDLING. The movement of a material in its container, the removal of the material from its container, or any other action or process that may affect the material, other than its storage or use.

INCOMPATIBLE MATERIALS. Materials that, if mixed or combined, could explode, generate heat, gases or other byproducts, or react in a way hazardous to life or property.

LIQUID. A material having a melting point that is equal to or less than 68°F (20°C) and a boiling point that is greater than 68°F (20°C) at 14.7 psia (101 kPa). When not otherwise identified, the term “liquid” includes both flammable and combustible liquids.

MATERIAL SAFETY DATA SHEET/SAFETY DATA SHEET (MSDS/SDS). A document prepared in accordance with the regulations of the United States Department of Labor, as set forth in 29 CFR Part 1910.1200 or a federally approved state OSHA plan which sets forth information concerning a hazardous material.

PERSONAL SUPERVISION. Supervision by the holder of any department certificate who is required to be personally present on the premises, or other proximate location acceptable to the department, while performing the duties for which the certificate is required.

PROCESS TRANSFER. The transfer of flammable or combustible liquids between cargo tanks or tank cars and containers, tanks piping and other equipment that is to be used in process operations.

SAFETY CAN. An approved container (e.g. approved metal safety cans must meet the requirement of ANSI/UL 30, Standard for Metal Safety Cans) with a capacity of not more than 5-gallons (19 L) and equipped with a spring-closing lid and spout cover designed to relieve internal pressure when exposed to fire.

TANK, PORTABLE. A container of more than 60-gallon (227 L) capacity, and designed to be loaded into or on or temporarily attached to a transport vehicle or marine vessel and equipped with skids, mountings or accessories to facilitate handling of the tank by mechanical means. It does not include any cargo tank or tank car. It is not intended for fixed installation.

Tank, TEMPORARY. The capacity of temporary aboveground tanks containing flammable or combustible liquids shall not exceed 660 gallons (2498 L) at construction sites. Tanks shall be of the single-compartment design, shall be constructed of steel, and shall meet the requirements of the New York State Department of Environmental Conservation regulations, as set forth in 6 NYCRR Parts 613 and 614.

3. FUEL TRUCK

The fuel truck must be continuously under the personal supervision of an S-91 Certificate of Fitness holder when it is being used or temporary stored on the film location. Each fuel truck shall utilize a maximum of **two** on board refueling tanks, in accordance with the following:

- A. Tanks shall be metallic only; fiber glass is unacceptable
- B. One tank shall be dedicated to gasoline storage only, and the other tank shall be dedicated for diesel storage only



Tanks must be metallic.

Two separate storage tanks: one for gasoline, one for diesel.

- C. Each tank shall be limited in capacity to no greater than 110 gallons
- D. Tanks shall be approved and/or listed for the intended use
- E. Tanks shall be properly secured to the non-combustible bed of the fuel truck
- F. Tanks shall have secondary containment, and this containment shall be keep free of liquids and debris at all times.

Each fuel truck shall utilize hoses, nozzles, and pumps/motors that are approved and/or listed for the intended use. The fuel truck dispensing hose shall not exceed 100 feet in length.

3.1 Protections and clearance from ignition and combustibles

Electrical devices and wiring in areas where fuel dispensing is conducted shall be in accordance with the NYC Electrical Code. Fuel dispensing shall be conducted at least 50 feet from combustible material/ and combustible waste.

3.2 No Smoking Sign

Signs prohibiting smoking and open flames shall be prominently and conspicuously posted on the two sides of the fuel truck. The signs shall be provided in English as a primary language. The Fire Department has published an approved “No Smoking” sign as set forth in Fire Department Rules. However, the Fire Department does not mandate that this design be used. Other legible, durable signs, clearly communicating the “no smoking” requirement, may be used, but are subject to Fire Department enforcement action if found to be inadequate.

Smoking or any open flames within 25 feet of the fuel truck and equipment being refueled shall be prohibited.



Examples of an acceptable sign

3.3 Warning signs

Warning signs shall be constructed of a durable material. Signs warning of the hazard of flammable liquids shall have red, black or white lettering on a contrasting background and shall read: DANGER—FLAMMABLE LIQUIDS. Letters shall not be less than 3 inches in height and 0.5 inch in stroke. Signs shall be posted in locations as required by the FDNY representatives.



(An example of the warning sign)

4. HANDLING AND DISPENSING

The C of F holder should:

- (1) prevent dispensing flammable and/or combustible liquids into any non-approved portable containers;
- (2) be familiar with the dispensing system and emergency shutoff controls;
- (3) personally perform the fueling operation and maintain a direct, clear, unobstructed view of the emergency fuel shutoff control

Before fueling, the truck engine and the motor or the engine of the equipment/generator that is fueled shall be shut down. Fueling shall not be undertaken at night except under well-lighted conditions.

4.1 Liquid Transfer

Liquid transfer equipment and methods for transfer of Class I, II and IIIA liquids shall be subject to the approval of the Fire Department representatives. Positive-displacement pumps shall be provided with pressure relief discharging back to the tank, pump suction or other approved location, or shall be provided with interlocks to prevent over-pressure. Any piping, hoses and valves used in liquid transfer operations shall be subject to the approval of the commissioner or listed for the intended use. **Compressed gases shall not be used to pressurize containers or tanks to provide for transfer.** Container-filling operations for Class I liquids involving conveyor belts or other automatic-feeding operations shall be designed to prevent static accumulations.

- A. **Class I and II liquids or Class III liquids in containers exceeding 5.3 gallons capacity** that are at a temperature higher than 20°F less than their flash points shall **not be dispensed by gravity**, but shall be transferred by one of the following methods:
1. From safety cans complying with the requirements of UL 30.
 2. Through an approved closed piping system.
 3. From containers or tanks by an approved pump taking suction through an opening in the top of the container or tank.
 4. Approved engineered liquid transfer systems.

Example: Turpentine having a flash point of 95°F would NOT be allowed to be dispensed by gravity if the material temperature was to exceed 75°F.

- B. The following liquids shall not be transferred into containers unless the nozzle and containers are **electrically interconnected**:
- (1) Any Class I liquids;**
 - (2) The Class II or III liquids at a temperature higher than 20°F less than their flash points**

Acceptable methods of electrical interconnection include:

1. Metallic floor plates on which containers stand while filling, when such floor plates are electrically connected to the fill stem; or
2. Where the fill stem is bonded to the container during filling by means of a bond wire.

4.2 Dispensing Fuel

Discharge devices shall be of a type that **do not develop an internal pressure** on the container. Pumping devices or approved self-closing faucets used for dispensing liquids shall not leak and shall be well-maintained. Normally, gasoline and diesel are dispensed into the generator using a fuel pump. These pumps are usually powered by electricity. All of the pumps are connected to an electrical circuit breaker. The breaker allows the pumps to be quickly shut off in case of an emergency. The fuel is pumped through a hose when filling the generator.

The pump has a dispensing control device installed. The control device is usually a lever installed next to a nozzle holding bracket. The control device may be turned on only when the dispensing nozzle is taken out of its holding bracket. It may be shut off when the dispensing nozzle is placed back into the holding bracket. No attempt should be made to bypass this control device.



The nozzle must be placed back into holding bracket after use. **The hose and nozzle must never be left laying on the ground.** If the hose and nozzle are on the ground they are exposed to physical damage. This damage may result in leaks and malfunctions of the system. Keeping the nozzle in the holding bracket reduces the risk of the hose being damaged. The hose and nozzle must always be replaced in the holding bracket when not in use. The length of the dispensing hose shall be such that at least 1 inch clearance between the hose and the ground is maintained when the nozzle is rested on its bracket.

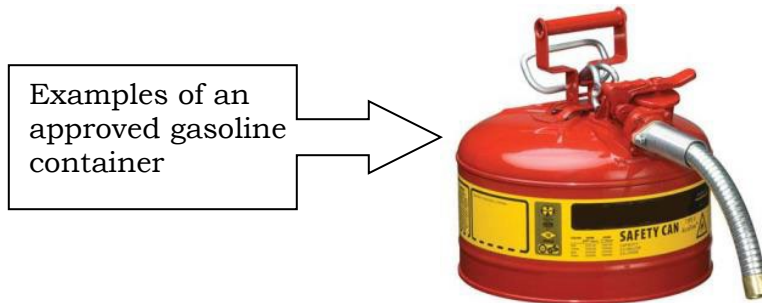
Before pumping motor fuel into a generator the nozzle must be grounded. This is done by touching the nozzle against the steel bumper or chassis of the generator. Grounding eliminates static electricity. Static electricity has the potential to cause a spark when pumping the fuel. A single spark may ignite the flammable/combustible vapors. Grounding makes sure that a fire or explosion does not occur while dispensing the fuel. **The generator's motor must always be turned off before fuel is pumped into it.**

4.3 Liquid Handling Devices.

Individual containers shall not be interconnected and shall be kept closed when not in use.

Any containers filled with motor fuel at a motor fuel dispensing facility is only allowed to have a maximum individual capacity of 2.5 gallons.

Motor fuel liquids in portable containers shall not be dispensed into portable tanks or cargo tanks. Portable containers shall not be filled while located inside the trunk, passenger compartment or truck bed of a vehicle or upon a watercraft. This is to make sure that no motor fuel is accidentally spilled into the trunk of the vehicle. No motor vehicle, motorcycle or watercraft shall be fueled from a portable container while inside a building or structure.



5. PORTABLE FIRE EXTINGUISHERS AND EMERGENCY RESPONSES

5.1 Fire Extinguishers

A portable extinguisher with a minimum rating of 2A:20BC shall be carried on the fuel truck at all times.

In the event of a fire extinguisher has been discharged, a fully charged replacement is required before work can resume. Portable fire extinguishers are important in preventing a small fire from growing into a catastrophic fire, however, they are not intended to fight large or spreading fires. By the time the fire has spread, fire extinguishers, even if used properly, will not be adequate to extinguish 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 called. Fire extinguishers must be used in accordance with the instructions painted on the side of the extinguisher. They clearly describe how to use the extinguisher in case of an emergency. The Certificate of Fitness holder should be familiar with the use of portable fire extinguishers. When it comes to using a fire-extinguisher just remember the acronym P.A.S.S. to help make sure you use it properly. P.A.S.S. stands for Pull, Aim, Squeeze, Sweep. An example of these instructions is depicted in the picture.

5.1.1 Different types of fire extinguishers

The Certificate of Fitness holder must be familiar with the different types of fire extinguishers that are present. 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 five 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). To extinguish a Class A fire, these extinguishers 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 the power has been isolated from 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. Generally, water should not be used to extinguish these fires.

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

Examples of fire extinguishers



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

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)	

			For Class A types
			For all water-based types
			For Class A, B types
			(1) AFFF (2) FFFP
			For Class B, C types
			(1) Carbon dioxide (2) Dry chemical (3) Halogenated agents
			For Class A, B, C types
			(1) Halogenated agents (2) Multipurpose dry chemical
			For Class K types
			(1) Wet chemical-based (2) Dry chemical-based

Fire Extinguisher Identification Symbols

The symbol with the shaded background and the slash indicates when the extinguisher must not be used. The Certificate of Fitness holder must understand these symbols. All fire extinguishers should be kept in good working order at all times.

5.1.2 Fire extinguisher inspections

MONTHLY

The portable fire extinguishers are required to be checked monthly. The owner of the business is responsible to select a person to do a monthly inspection. This monthly inspection is called a "quick check".

The **QUICK CHECK** should check if:

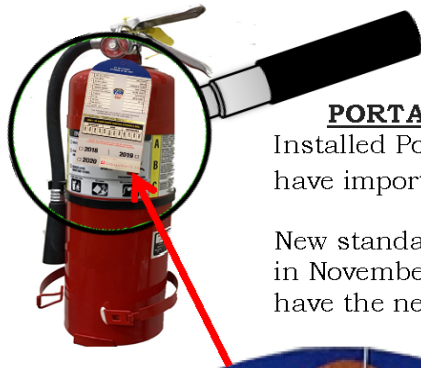
- (1) the fire extinguisher is fully charged;
- (2) it is in its designated place;
- (3) it has not been actuated or tampered with;
- (4) there is no obvious or physical damage or condition to prevent its operation.

The information of the monthly inspection record must include the date of the inspection, the name/initials of the person who did the inspection. This monthly quick check record must be kept on the back of the PFE tag or by an approved electronic method that provides a permanent record.

ANNUALLY

At least annually all Portable Fire Extinguishers must be checked by a W-96 Certificate of Fitness holder from FDNY approved company. After each annual inspection W-96 COF holder will replace the PFE tag. The information of the annual inspection record must be indicated on the new PFE tag.

5.1.3 Portable Fire Extinguisher Tags



PORTABLE FIRE EXTINGUISHER (PFE) TAGS (NEW)

Installed Portable Fire Extinguishers must have a PFE tag affixed. This tag will have important information about the extinguisher.

New standardized PFE tags (see below) will begin appearing at premises starting in November 2018. By November of 2019, all portable fire extinguishers must have the new PFE tags.

DO NOT REMOVE BY ORDER OF THE

<input type="checkbox"/> ABC (Dry Chem)
<input type="checkbox"/> AFFF/FFFP
<input type="checkbox"/> BC (Dry Chem)
<input type="checkbox"/> PURPLE K (PK)
<input type="checkbox"/> CARBON DIOXIDE
<input type="checkbox"/> CLASS D (Dry Powder)
<input type="checkbox"/> CLASS K
<input type="checkbox"/> FE-36
<input type="checkbox"/> FM 200
<input type="checkbox"/> HALON 1211
<input type="checkbox"/> HALON 1301

WATER	<input type="checkbox"/>
LOADED STREAM	<input type="checkbox"/>
WET CHEM	<input type="checkbox"/>
CLEAN AGENT	<input type="checkbox"/>
INTERGEN	<input type="checkbox"/>

THIS PORTABLE FIRE EXTINGUISHER HAS BEEN SERVICED AS REQUIRED BY NYC FIRE CODE 906.2.1.2

2018

2019

2020

PROOF OF COMPLIANCE FOR USE OF PORTABLE FIRE EXTINGUISHER SERVICED

VOID 1 YR. FROM MONTH PUNCHED											
SERVICED			NEW			RECHARGED					
JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC

DO NOT REMOVE BY ORDER OF THE FDNY

COF STAMP:
Stamped information of Certificate of Fitness holder who performed the work.

HOLOGRAM:
Real PFE tags will have high quality silver hologram measuring 3 inches long by ¼ inch high.

Name **John Smith Extinguisher**
 C of F **12345678**
 Company **Extinguisher Equipment Guru, Inc.**
 # **999**
12 Oliver Street,
Bronx, NY
 Number **999-999-9999**

MONTHLY INSPECTION RECORD			
DATE	BY	DATE	BY
12/1/2018	I.L.		
1/1/2019	I.L.		

QR CODE:
Scan this QR Code to view FDNY approved company PFE list.

PUBLIC USE: Scan to check company info
 SERIAL # **WU-387294**
 PREMISES ADDRESS **123 Flatbush Ave, Brooklyn**

UNAUTHORIZED POSTING IS A CRIME PUNISHABLE BY FINE AND/OR IMPRISONMENT

TIPS

A real hologram strip is 3 inches long by ¼ inch wide. Counterfeit tags will NOT have a high quality silver hologram. The hologram on a counterfeit tag will NOT change color as it is moved against the light.

If your PFE tags look different than the one pictured above, contact your supervisor. If you suspect your PFE is a counterfeit, contact FDNY immediately by e-mail: Tags.Decal@fdny.nyc.gov

5.2 Emergency Procedures

5.2.1 Fire notification

Anyone becoming aware of any fire is required to immediately notify 911. The New York City Fire Department will respond. No supervisor or other person shall issue any directive or take any action to prevent or delay the reporting of a fire or other emergency to the department. You should also notify the building's designated fire safety person who is familiar with the building and can meet the responding emergency units upon their arrival, and direct them quickly to the fire area.

5.2.2 Spill notification

Provisions shall be made to control and mitigate the accidental spill of gasoline and/ or diesel. In case of a major spill, the Certificate of Fitness holder must notify the Fire Department by phone immediately. The Certificate of Fitness holder must know the telephone number of the Fire Department Dispatcher number in the borough where the building is located. These phone numbers must be posted near the phones most likely to be used in case of an emergency.

In addition, All petroleum spills that occur within New York State (NYS) must be reported to the NYS Spill Hotline (1-800-457-7362) **within 2 hours of discovery**, except spills which meet **ALL of the following criteria**:

1. The quantity is known to be less than 5 gallons; and
2. The spill is contained and under the control of the spiller; and
3. The spill has not and will not reach the State's water or any land; and
4. The spill is cleaned up within 2 hours of discovery.

A spill is considered to have not impacted land if it occurs on a paved surface such as asphalt or concrete. **A spill in a dirt or gravel parking lot is considered to have impacted land and is reportable.**

More details on notification and reporting requirements can be found in the document posted by the Department of Environmental Conservation (http://www.dec.ny.gov/docs/remediation_hudson_pdf/1x1.pdf). (The spill responses can be referred to <http://www.dec.ny.gov/chemical/8692.html>)

6. COMMON FLAMMABLE AND COMBUSTIBLE LIQUIDS

The following paragraphs give a brief overview of the flammable and combustible liquids that are commonly used in the workplace. The name of each flammable and combustible liquid is followed by its hazard signal classification for flammability, instability (reactivity), and health.

The Certificate of Fitness holder must know the properties of each of these liquids and their handling and storage requirements. He or she must also know the procedures that must be followed when dealing with fire or spill emergencies for these liquids.

It is recommended that all personnel wear proper protective equipments (PPE) including rubber safety gloves, chemical safety goggles when handling the flammable or combustible liquids.

6.1 Flammable Liquids

Gasoline (Class IA Liquid)

(Hazard Signal: 1 Health 3 Flammability 0 Instability)



Gasoline is a toxic translucent, petroleum-derived liquid that is primarily used as a fuel in internal combustion engines. It consists mostly of organic compounds obtained by the fractional distillation of petroleum, enhanced with a variety of additives. Some gasoline also contains ethanol as an alternative fuel. In North America, the term "gasoline" is often shortened in colloquial usage to "gas", whereas most current or former Commonwealth nations use the term "petrol"

Handling and Storage

▪ **Handling Precautions:**

USE ONLY AS A MOTOR FUEL. DO NOT SIPHON BY MOUTH. Handle as a flammable liquid. Keep away from heat, sparks, and open flame! Electrical equipment should be approved for classified area. Bond and ground containers during product transfer to reduce the possibility of static-initiated fire or explosion. Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil) is loaded into tanks previously containing low flash point products (such as this product).

▪ **Storage:**

Keep away from flame, sparks, excessive temperatures and open flame. Use approved vented containers. Keep containers closed and clearly labeled. Empty product containers or vessels may contain explosive vapors. Do not pressurize,

cut, heat, weld or expose such containers to sources of ignition. Store in a well-ventilated area. Avoid storage near incompatible materials.

Fire Hazards

Vapors may be ignited rapidly when exposed to heat, spark, open flame or other source of ignition. Flowing product may be ignited by self-generated static electricity. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard.

Health Hazard

▪ **Inhalation:**

Excessive exposure may cause irritations to the nose, throat, lungs and respiratory tract. Central nervous system (brain) effects may include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure, and death.

▪ **Skin Contact:**

Practically non-toxic if absorbed following acute (single) exposure. May cause skin irritation with prolonged or repeated contact. Liquid may be absorbed through the skin in toxic amounts if large areas of skin are exposed repeatedly.

▪ **Eye Contact:**

Moderate irritant. Contact with liquid or vapor may cause irritation.

▪ **Chronic Exposure:**

Contains benzene, a regulated human carcinogen. Benzene has the potential to cause anemia and other blood diseases, including leukemia, after repeated and prolonged exposure. Exposure to light hydrocarbons in the same boiling range as this product has been associated in animal studies with systemic toxicity.

6.2 Combustible Liquids



Diesel (Class II liquid)

(Hazard Signal: 0 Health 2 Flammability 0 Instability)

Diesel in general is any liquid fuel used in diesel engines. The most common is a specific fractional distillate of petroleum fuel oil. Diesel fuel is refined into several sub-categories or grades. From highest to lowest viscosity are Number 1 Diesel Fuel (1-D), Number 2 Diesel Fuel (2-D) and Number 4 Fuel Diesel (4-D). Number 4 Fuel Diesel Fuel is used in low and medium speed engines that operate at a constant or near-constant speed, such as stationary powerplants or railroad locomotives. Numbers 1 and 2 Diesel Fuel are the primary fuel for mobile diesel engine applications. Volatility is one of the primary factors which distinguish #1 from #2 diesel fuel. No. 1 diesel typically has greater volatility than No. 2. Number 1 Diesel Fuel is commonly labeled at the pump as "Premium Diesel". While Number 2 Diesel Fuel has a higher lubricating quality than Number 1 Diesel, its thickness can cause rough starting in a cold engine and rough-running in cold weather.

Home heating oil is closest to Number 2 diesel fuel in ignition quality and lubricating ability. But home heating oil is not intended to be used in an internal combustion engine because it may not have the smoke suppressants, ignition accelerators and biocides.

Handling and Storage

▪ **Handling Precautions:**

Handle as a combustible liquid. Keep away from heat, sparks, and open flame! Electrical equipment should be approved for classified area. Bond and ground containers during product transfer to reduce the possibility of static-initiated fire or explosion. Diesel fuel, and in particular low and ultra low sulfur diesel fuel, has the capability of accumulating a static electrical charge of sufficient energy to cause a fire/explosion in the presence of lower flashpoint products such as gasoline. The accumulation of such a static charge occurs as the diesel flows through pipelines, filters, nozzles and various work tasks such as tank/container filling, splash loading, tank cleaning; product sampling; tank gauging; cleaning, mixing, vacuum truck operations, switch loading, and product agitation. There is a greater potential for static charge accumulation in cold temperature, low humidity conditions

▪ **Storage:**

Keep away from flame, sparks, excessive temperatures and open flame. Use approved vented containers. Keep containers closed and clearly labeled. Empty product containers or vessels may contain explosive vapors. Do not pressurize,

cut, heat, weld or expose such containers to sources of ignition. Store in a well-ventilated area.

Fire Hazards

Vapors may be ignited rapidly when exposed to heat, spark, open flame or other source of ignition. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard.

Health Hazards

▪ **Inhalation:**

Excessive exposure may cause irritations to the nose, throat, lungs and respiratory tract. Central nervous system (brain) effects may include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure, and death.

WARNING: the burning of any hydrocarbon as a fuel in an area without adequate ventilation may result in hazardous levels of combustion products, including carbon monoxide, and inadequate oxygen levels, which may cause unconsciousness, suffocation, and death.

▪ **Eye Contact:**

Contact with liquid or vapor may cause mild irritation.

▪ **Skin Contact:**

May cause skin irritation with prolonged or repeated contact. Practically non-toxic if absorbed following acute (single) exposure. Liquid may be absorbed through the skin in toxic amounts if large areas of skin are repeatedly exposed.

▪ **Chronic Exposure:**

Similar products produced skin cancer and systemic toxicity in laboratory animals following repeated applications.

7. Lithium-Ion Battery Safety

Lithium-ion safety

Lithium-ion batteries are rechargeable batteries found in electric bikes, scooters, cars, laptops, tablets, phones, and many other common household devices.


Lithium-ion battery fires have caused deaths, serious injuries, and devastating damage to property around the city. It's important to follow rules for safe storage, charging, and disposal for these types of batteries.

If you own a lithium-ion powered device or plan to buy one, the FDNY has important safety tips that you should follow. These tips apply to all devices powered by lithium-ion batteries, including phones, tablets, laptops, e-cigarettes, toys, high-tech luggage, and even robotic vacuum cleaners.

Immediately stop using or charging battery and call 911 if you notice:

- Fire or Smoke
- Overheating
- Change in color or shape
- Odd noises
- Leaking
- Strange smell

ALWAYS:

- purchase and use devices certified by a Nationally Recognized Testing Laboratory (NRTL). 
- follow the manufacturer's instructions for:
 - charging and storage.
 - correct battery, cord, and power adapter
- **keep exit path clear at all times.**
- plug directly into a wall electrical outlet for charging.
- keep batteries and devices at room temperature.
- store and/or charge batteries away from anything flammable.
- keep away from heat sources.
- bring batteries to a **NYC Battery Recycling Center**. Visit nyc.gov/batteries for more information.

**In the event of a Fire,
Leave and CLOSE the door.**

Call 911 once you are in a safe location.

NEVER:

- use aftermarket batteries or chargers.
- use damaged or altered batteries
- plug into a power strip or overload an outlet.
- overcharge or leave battery charging overnight.
- charge a battery or device under your pillow, on your bed, or near a couch.
- leave e-bikes or e-scooters unattended while charging.
- block your primary way in or out of a room/space with e-bikes, e-scooters, wheelchairs, etc.
- place batteries in Trash or Recycling bin. **It is ILLEGAL.** Visit nyc.gov/batteries for disposal locations and information.



Charging Lithium Ion

Lithium-ion batteries do not have to be fully charged; partial charge is the most suitable.

When **charging more than five (5)** personal mobility devices or their removable batteries, it must be in a **dedicated room with ventilation** and a self-closing door.

For a total battery capacity of 20 kilowatt-hours (kWh), a 2-foot separation between charging batteries is required. For a total battery capacity up to 50 kWh, a 3-foot separation is needed.

Chargers must only be used with a compatible battery pack. The original equipment manufacturer (OEM) charger interplays with the battery pack using the battery management system (BMS). The wrong battery/charger combination may not work safely. For example, the 100% cutoff to prevent overcharging, which damages batteries, may not work which can easily create hazardous conditions such as fires, explosions and/or injuries.

Always check with the manufacturer or retailer of the personal mobility device, an authorized repair shop or a testing laboratory such as Underwrites Laboratories (UL) to see if replacement is recommended or listed and safe for use with that device. Using unauthorized parts, including batteries and/or chargers, may cause damage, fire and possibly void your warranty.

Extinguishing Lithium-ion

Water may not prevent a battery from burning and spreading. Battery cells are known to explode and quickly spread to another battery. It can spread to another devices.



Fire Extinguishers
do not work
on lithium-ion batteries fires.

Unexpected Re-ignition.

Reignition is common. Lithium-Ion Batteries are known to unexpectedly re-ignite (without warning) minutes, hours and even days after all visible fire has been put out.

Lithium-ion batteries can enter an uncontrollable, self-heating state. This can result in the release of gas, cause fire and possible explosion.

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

