

NEW YORK CITY FIRE DEPARTMENT

Notice of

Repeal of Existing Fire Department Rules and

Promulgation of New Fire Department Rules  
(Chapters 1, 4, 9, 27, 28 34, 36, 46 and 48 of  
Title 3 of the Rules of the City of New York),

and Amendments to  
Fire Department Rules 3 RCNY §102-01, §113-02,  
§113-03 and §202-01.

NOTICE IS HEREBY GIVEN PURSUANT TO THE AUTHORITY VESTED IN THE Fire Commissioner of the City of New York by Section 489 of the New York City Charter and Chapter 1 of the New York City Fire Code, codified in Title 29 of the New York City Administrative Code, and in accordance with the requirements of Section 1043 of the New York City Charter, that the New York City Fire Department hereby repeals the rules listed below.

NOTICE IS FURTHER GIVEN PURSUANT TO THE AUTHORITY VESTED IN THE Fire Commissioner of the City of New York by Section 489 of the New York City Charter and Chapter 1 of the New York City Fire Code, codified in Title 29 of the New York City Administrative Code, and in accordance with the requirements of Section 1043 of the New York City Charter, that the New York City Fire Department hereby promulgates the rules listed below. New material is underlined. Material to be deleted is [bracketed].

A public hearing was held on Thursday, May 28, 2009. The repeal of existing Fire Department rules and the promulgation of Fire Department rules shall take effect on August 23, 2009.

The Notice of Repeal of Existing Fire Department Rules and Promulgation of Fire Department Rules will be available for at least 90 days on the Fire Department Internet Home Page at:

[www.nyc.gov/fdny](http://www.nyc.gov/fdny)

## INTRODUCTION

This is the third installment of a series of rulemaking proceedings to repeal and repromulgate all Fire Department rules in effect on June 30, 2008 (“existing rules”). The Fire Department is undertaking to repeal and repromulgate all of its existing rules in connection with the enactment of the new New York City Fire Code, which took effect on July 1, 2008.

These rules have been renumbered to parallel the new Fire Code sections. For example, §3404-01, relating to out-of-service storage systems, corresponds to Fire Code §3404 (FC3404), which governs out-of-service storage systems. The rules have also been revised to conform to the terminology of the new Fire Code, and, as necessary, revised to amend or clarify various requirements. Except as otherwise indicated in the statement of basis and purpose for each chapter of the rules, the provisions of these rules are substantially equivalent to the existing rules.

In addition, certain rules are substantively new. Such new rules are addressed in the statement of basis and purpose for each chapter.

This installment of the rules includes Chapter 48, entitled “Pre-Existing Facilities.” This chapter does not correspond to any FC chapter but, as explained in R102-01, consolidates requirements for facilities, or parts thereof, and conditions that were lawfully existing on July 1, 2008, the effective date of the Fire Code, and that, pursuant to FC102.3, may be continued in compliance with laws, rules, regulations and permit conditions pre-dating the Fire Code. The last two digits of the rule section number indicate the FC chapter to which the rule corresponds. For example, R4828-01 relates to the design and installation requirements for aerosol storage in pre-existing facilities that do not comply with the requirements of Fire Code Chapter 28.

As set forth in 3 RCNY §202-01, “FC” refers to the Fire Code and “R” to the rules. *Italicized* words refer to terms defined in the Fire Code or the rules.

### Chapter 1 of Title 3 of the Rules of the City of New York

#### ADMINISTRATION

§113-09            Non-Production Laboratory Certificates of Fitness

### Chapter 4 of Title 3 of the Rules of the City of New York

#### EMERGENCY PLANNING AND PREPAREDNESS

§403-01            Fire Safety Precautions at Street Fairs and Similar Outdoor Public Gatherings

§408-02            Residential Fire Safety Guides and Notices

### Chapter 9 of Title 3 of the Rules of the City of New York

#### FIRE PROTECTION SYSTEMS

§901-03            Portable Fire Extinguisher Sales

### Chapter 27 of Title 3 of the Rules of the City of New York

#### HAZARDOUS MATERIALS – GENERAL PROVISIONS

§2706-01           Non-Production Chemical Laboratories

- §2707-01 Transportation of Explosives by Motor Vehicles
- §2707-02 Transportation by Motor Vehicle of Hazardous Materials in Continuous Transit Through New York City or For Transshipment From New York City

Chapter 28 of Title 3 of the Rules of the City of New York

AEROSOLS

- §2801-01 Aerosols
- §2802-2806 Reserved

Chapter 34 of Title 3 of the Rules of the City of New York

FLAMMABLE AND COMBUSTIBLE LIQUIDS

- §3401-3403 Reserved
- §3404-01 Out-of-Service Storage Systems
- §3404-02 Precision Testing of Certain Underground Storage Systems
- §3404-03 Indoor and Aboveground Combustible Liquid Storage Systems
- §3405-01 Storage and Use of Fuel Oil on Mobile Trailers for Heating and Power Generation
- §3406-01 Storage of Flammable and Combustible Liquids on Roofs at Construction Sites

Chapter 36 of Title 3 of the Rules of the City of New York

FLAMMABLE SOLIDS

- §3601-01 Flammable Solids
- §3602-3605 Reserved

Chapter 46 of Title 3 of the Rules of the City of New York

FEES

- §4601-01 New and Amended Fees
- §4602-4603 Reserved

Chapter 48 of Title 3 of the Rules of the City of New York

PRE-EXISTING FACILITIES

- §4827-01 Storage of Hazardous Materials in Pre-Existing Facilities
- §4828-01 Storage of Aerosols in Pre-Existing Facilities
- §4829-01 Storage of Combustible Fibers in Pre-Existing Facilities
- §4831-01 Storage of Corrosive Materials in Pre-Existing Facilities
- §4833-01 Storage of Explosives in Pre-Existing Facilities
- §4834-01 Storage of Flammable and Combustible Liquids in Pre-Existing Facilities
- §4839-01 Storage of Organic Peroxides in Pre-Existing Facilities

Section 1. The following provisions of Title 3 of the Rules of the City of New York are hereby REPEALED:

- 3 RCNY §1-01, entitled “Tanks Used for Bulk Storage of Acids”
- 3 RCNY §7-01, entitled, “Required Periodic Tests of Fire Extinguishing Systems in Bulk Oil Storage Systems”
- 3 RCNY §7-02, entitled, “Color Coding for Fire Extinguishing Systems in Bulk Oil Storage and Similar Plants”
- 3 RCNY §7-03 entitled “Signs at Fuel Oil Loading Racks in Bulk Oil Terminals”

- 3 RCNY §7-04, entitled “Hydrostatic Testing of Buried Piping in Oil Storage Plants”
- 3 RCNY §7-05, entitled “Hydrocarbon Vapor Recovery Units for Use in Bulk Plants Storing or Dispensing Volatiles (Such as Gasoline)”
- 3 RCNY §7-06, entitled “Oil Spill Control at Bulk Storage Plants and Petroleum Product Pipelines”
- 3 RCNY §7-07, entitled “Manufacture, Refining and Distilling of Petroleum, Coal Tar, or the Liquid or Solid Products Thereof, and the Storage, Transportation or Use of any Such Products in Certain Areas in the Borough of Richmond”
- 3 RCNY §7-08, entitled “Certificates of Fitness for Bulk Oil Storage Plants”
- 3 RCNY §8-01, entitled “Fire Extinguishing Requirements for the Storage of Fats and Oils”
- 3 RCNY §8-02, entitled “Storage and Use of Cable Oils with a Flashpoint Over 300<sup>0</sup>F”
- 3 RCNY §10-01, entitled “Storage and Use of Chemicals, Acids and Gases in College, University, Hospital, Research and Commercial Laboratories”
- 3 RCNY §12-01, entitled “Fire Drill and Evacuation in Hospitals and Nursing Institutions”
- 3 RCNY §14-01, entitled “Explosives Control”
- 3 RCNY §14-02, entitled “Identification of Blasting Caps”
- 3 RCNY § 14-03, entitled “Transportation, Storage, Sale and Use of Blasting Explosives”
- 3 RCNY § 14-04, entitled “Specifications for Explosive Magazines”
- 3 RCNY §14-05, entitled “Alarm Systems For First Class Explosives (Powder and Caps) Magazines, and for All Magazines Storing Explosives Overnight”
- 3 RCNY §14-06, entitled “Use of Explosives for the Demolition of Structures”
- 3 RCNY §14-07, entitled “Disposal of Dynamite”
- 3 RCNY §15-05, entitled “Fire Protection in Wholesale Drug and Chemical Supply Houses”
- 3 RCNY §15-06, entitled “Fire Extinguishing Requirements for the Storage of Distilled Liquors and Alcohols”
- 3 RCNY §20-01, entitled “Storage and Use of Flammable and Combustible Liquids and Mixtures”
- 3 RCNY §20-02, entitled “Storage and Use of Combustible Mixtures and/or Kerosene in Multiple Dwelling Occupancies”
- 3 RCNY §20-03, entitled “Products Exempt from Certificate of Approval and/or Permit Labeling Requirements”
- 3 RCNY §20-04, entitled “Labels on Containers of Flammable and Combustible Mixtures”
- 3 RCNY §20-05, entitled “Use of Plastic Containers for Flammable and Combustible Mixtures”
- 3 RCNY §20-06, entitled “Storage of Liquids, Gases or Solids Having a Flashpoint of Less Than 100<sup>0</sup>F in Refrigerators”
- 3 RCNY §20-07, entitled “Storage and Sale of Acetone and/or Nail Polish Remover”
- 3 RCNY §20-10, entitled “Hi-lows, Tractors and Similar Equipment”
- 3 RCNY §20-11, entitled “Storage and Use of Combustible Liquids in Dry Cleaning Establishments”
- 3 RCNY §21-01, entitled “Periodic Testing and Maintenance of Foam Extinguishing Systems for Gasoline and/or Diesel Oil Tank Vaults in Oil Selling Stations, Private Fill Stations and Garages”
- 3 RCNY §21-02, entitled “Out-of-Service Storage Systems”
- 3 RCNY §21-03, entitled “Performance of Precision Tests on Underground Storage Systems Containing Motor Vehicle Fuels or Other Flammable Liquids or Mixtures”
- 3 RCNY §21-04, entitled “Required Tests of Buried Flammable Storage Systems”
- 3 RCNY §21-05, entitled “Storage and Sale of Flammable and/or Volatile Flammable Oils in Retail Paint Stores”
- 3 RCNY §21-06, entitled “Safeguards for Filling Above Ground Storage Tanks in Paint Stores”
- 3 RCNY §21-11, entitled “Installation of Buried Gasoline Storage Systems for Temporary Use on Construction Projects in Lieu of Above-Ground Storage as Provided in § 27-4058(d) of the Administrative Code”
- 3 RCNY §21-15, entitled “Helicopter External Load Operations”
- 3 RCNY §21-17, entitled “Installation of Storage Tanks and Piping for Liquids Having Flashpoints of 100 Degrees Fahrenheit or Higher Tag. Open Cup”
- 3 RCNY §21-18, entitled “Mobile Emergency Heating Trailers Using Fuel Oil”
- 3 RCNY §27-01, entitled “Storage, Sale or Use of Organic Peroxides Packaged for Manufacturing, Industrial or Commercial Uses”
- 3 RCNY §28-01, entitled “Storage of Paints, Varnishes and Lacquers, and Similar Products in Multiple Dwellings”

- 3 RCNY §28-02, entitled “Temporary Paint Storage Rooms in Schools of the Board of Education”
- 3 RCNY §28-03, entitled “Installation of Sprinkler Heads for Spray Booth-Drying Ovens”
- 3 RCNY §28-04, entitled “Storage and/or Use of Inks”
- 3 RCNY §28-05, entitled “Storage and Use of Flammable and Combustible Floor Finishing Products”
- 3 RCNY §29-01, entitled “Fire Protection Requirements in City Operated Parking Lots Equipped with Parking Meters”
- 3 RCNY §29-02, entitled “Fire Aisle Spaces in Parking Lots”
- 3 RCNY §29-03, entitled “Openings Between Converted Three-Family Multiple Dwelling Garages and Dwelling Portions”
- 3 RCNY §30-01, entitled “Storage of Sisal, Hemp and/or Similar Combustible Cargo on Piers”
- 3 RCNY §30-02, entitled “Storage of Gasoline Propelled Hi-Lows, Tractors and Similar Equipment on Piers”
- 3 RCNY §31-01, entitled “Places of Public Assembly Wherein Trade Shows and Similar Exhibitions are Conducted”
- 3 RCNY §31-02, entitled “Storage and/or Use of Liquid or Gaseous Fuels in Conjunction with Bazaars, Street Festivals, Carnivals, Fairs or Similar Outdoor Events”
- 3 RCNY §32-01, entitled “Manufacture, Storage and Use of Pressurized Products”
- 3 RCNY §33-01, entitled “Plan Requirements for Refrigerating Systems”
- 3 RCNY §33-03, entitled “Qualified Refrigerating Machine Operator Requirements”
- 3 RCNY §33-04, entitled “Approved Refrigerants-Group 1”
- 3 RCNY §33-05, entitled “Lithium Bromide Absorption Systems”
- 3 RCNY §34-01, entitled “Storage and Use of Limited Quantities of Chemicals, Acids, and Flammables for Instruction Purposes in Public High Schools”
- 3 RCNY §37-01, entitled “Holders of Fire Department Certificates of Fitness for Maintenance of Sprinkler and/or Standpipe Systems”
- 3 RCNY §40-01, entitled “Trucks Transporting Explosives”
- 3 RCNY §40-02, entitled “Transportation of Class 4 Through Class 9 Hazardous Materials by Cargo Tank or Other Motor Vehicle”
- 3 RCNY §40-04, entitled “Transportation of Flammable and Combustible Liquids by Cargo Tank or Other Vehicle”
- 3 RCNY §40-06, entitled “Transportation of Compressed Gases by Cargo Tank or Other Vehicle”
- 3 RCNY §40-07, entitled “Transportation of Hazardous Cargo Through the City of New York by Motor Vehicle”
- 3 RCNY §43-01, entitled “Residential Fire Safety Plans and Notices”

Section 2. Chapter 1 of Title 3 of the Rules of the City of New York is hereby amended by adding a new subdivision (f) to §102-01, adding a new section, § 113-09, and amending subdivisions (c) and (f) of §§ 113-02 and 113-03, to read as follows:

**CHAPTER 1  
ADMINISTRATION**

§101	Reserved
§102-01	Pre-Existing Facilities and Conditions
§103	Reserved
§104-01	Appeals
§104-02	<u>Professional Certification of Fire Alarm System Installations</u> Reserved
§104-03	Disposal of Contraband Materials

§104-04	Modification of Rules
[§105-108	Reserved]
<u>§105-01</u>	<u>Approval of Fire Alarm System Installations Reserved</u>
<u>§106-108</u>	<u>Reserved</u>
§109-01	Notice of Violation, Certification of Correction and Stipulation Procedures
§109-02	Consolidation of Provisions of the Administrative Code for Enforcement Purposes
§110-111	Reserved
§112-01	Certificates of Approval
§113-01	Certificates of Fitness and Certificates of Qualification
§113-02	Fire Safety Director Certificate of Fitness
§113-03	Fire Safety/EAP Director Certificate of Fitness
§113-04	Accreditation of Training Courses
§113-05	Fire Safety Director Training Courses
§113-06	Fire Safety/EAP Director Training Courses
§113-07	Refrigerating System Operating Engineer Training Courses
§113-08	Commercial Cooking Exhaust Systems Certificates of Fitness
<u>§113-09</u>	<u>Non-Production Laboratory Certificates of Fitness</u>
§114-01	Certificates of License
§115-01	Company Certificates
§116-01	Expeditor Registration
§117	Reserved

**§ 102-01 Pre-Existing Facilities and Conditions**

\* \* \*

(f) Projects In Progress

(1) Approved facilities completed prior to January 1, 2010. The design and installation of a *facility*, the construction of which was completed and/or approved for use or occupancy by the *Department of Buildings* on or after July 1, 2008, and which would not be allowed and could not be approved under the applicable provisions of the Fire Code and the *rules*, shall be deemed a *pre-existing facility* under the following circumstances and subject to the following conditions:

(A) The design of the *facility* shall have been approved by the *Department of Buildings* and a work permit issued by that agency for the construction thereof prior to July 1, 2008;

(B) The design of the *facility* to be constructed was in compliance with all applicable provisions of the *Fire Prevention Code* and Fire Department rules in effect at the time such work permit was issued; and

(C) Construction of the *facility* is completed and its use and occupancy approved prior to January 1, 2010.

(2) Approved facilities completed prior to January 1, 2011. The design and installation of a *facility* otherwise eligible to be deemed a *pre-existing facility* pursuant to R102-01(f)(1), except that construction of the *facility* will not be completed, and/or its use and occupancy will not be approved, prior to January 1, 2010, shall be deemed a *pre-existing facility* under the following circumstances and subject to the following conditions:

(A) A showing satisfactory to the *Department* that compliance with the applicable provisions of the Fire Code and *rules* would be an undue hardship; and

(B) Compliance with *approved* measures to ameliorate the fire safety concerns arising from non-compliance with the Fire Code and *rule* design requirements constituting the undue hardship; and

(C) Construction of the *facility* is completed and its use and occupancy approved prior to January 1, 2011, except that such deadline may be extended by modification upon a satisfactory showing that construction could not be reasonably completed by such date, and the construction continues to be authorized under the work permit issued by the *Department of Buildings*.

#### **§104-02 Professional Certification of Fire Alarm System Installations**

Reserved

#### **§105-01 Approval of Fire Alarm System Installations**

Reserved

#### **§ 113-02 Fire Safety Director Certificates of Fitness**

\* \* \*

(c) Qualifications. In addition to the qualifications set forth in FC113, applicants for fire safety director *certificates of fitness* shall possess and demonstrate to the satisfaction of the *Department* the following qualifications:

\* \* \*

(6) At time of renewal of such certificate, receipt of a passing grade on a practical (on-site) examination administered by the Department, when required by this section.

(A) Certificate holders registered for one or two work locations. Pursuant to FC113.7.3, holders of fire safety director certificate of fitness who register for one (1) or two (2) work locations are subject to a practical (on-site) examination at each work location at time of renewal of such certificate whenever the Department determines such an examination is necessary to demonstrate the holder's continuing qualifications and fitness.

(B) Certificate holders registered for more than two work locations. Any holder of a fire safety director certificate of fitness who receives special approval to register for more than two (2) work locations shall be subject to a practical (on-site) examination at each work location at time of renewal of such certificate. Such a certificate holder shall schedule an appointment for a practical (on-site) examination with the High Rise Unit of the Bureau of Fire Prevention not less than three (3) months prior to the expiration of each certificate.

\* \* \*

(f) [Change in] Registration of Work Locations. The fire safety director *certificate of fitness* is issued for [a] one (1) or more specific work locations. [A change in work location must be immediately reported to the Licensing Unit of the Bureau of Fire Prevention, and application made for an original practical (on-site) examination at the work location prior to commencing work at such location.] Applicants for, or holders of, a fire safety director certificate of fitness must register each work location at which they will be performing the duties of a fire safety director. A fire safety director certificate of fitness does not authorize the holder to perform such duties at any location other than work locations registered with the Department. Registration of multiple work locations shall not be construed to authorize performance of the duties of a fire safety director at more than one (1) work location at the same time.

(1) Submission. To register one (1) or more work locations, a fire safety director *certificate of fitness* applicant or holder shall submit a letter from each employer for whom he or she will be performing the duties of a *certificate of fitness* holder. Such letter shall be on business letterhead, and signed by an appropriate principal or officer of the employer, and provide such information and documentation as may be required by the *Department*.

(2) Limitation on work locations. A fire safety director *certificate of fitness* will be issued to a single applicant or holder for no more than two (2) work locations, except as may be approved by the *Department* in accordance with the following provisions:



- (A) Special approval shall be required to register for more than two (2) work locations. Such special approval shall only be granted upon a determination that the applicant is capable of demonstrating and maintaining proficiency at each work location. For example, in determining the applicant's ability to maintain proficiency at multiple work locations, consideration may be given to the number of hours to be regularly worked at each location, and similarities in the design and arrangement of the work locations (as may be the case with an office building complex or a chain of similarly designed and arranged hotels).
- (B) Fire safety directors approved to register for more than two (2) work locations shall be subject to administration of practical (on-site) examinations at each work location in accordance with R113-02(c)(6)(B), and such other terms and conditions as the *Department* may prescribe to assure that proficiency is maintained.
- (C) A fire safety director *certificate of fitness* holder registered for more than two (2) work locations on October 1, 2009 shall, not less than three (3) months prior to the expiration of the first certificate to expire after such date, apply for special approval for all such additional work locations. The certificate holder shall be subject to administration of practical (on-site) examinations at such time at each registered work location for which special approval is granted.
- (3) Change in work location. The holder of a fire safety director *certificate of fitness* who will no longer be performing the duties of a fire safety director at a registered work location shall immediately notify the Licensing Unit of the *Bureau of Fire Prevention*, and shall make *application* for a practical (on-site) examination at any new work location prior to commencing work at such location. The holder of a fire safety director *certificate of fitness* shall not perform any duties requiring such certificate until such time as a work location has been registered in accordance with this section.
- (4) Certificate not in use. The *certificate of fitness* of a fire safety director who does not have any work location registered with the *Department* shall be deemed "Not In Use" (inactive) and is not valid to perform the duties of a fire safety director. A fire safety director *certificate of fitness* that is in "Not In Use" status may be renewed only once.

### § 113-03 Fire Safety/EAP Director Certificates of Fitness

\* \* \*

(c) Qualifications. In addition to the qualifications set forth in FC113, applicants for fire safety/EAP director *certificates of fitness* shall possess and demonstrate to the satisfaction of the *Department* the following qualifications:

- (1) hold a fire safety director *certificate of fitness* issued by the *Department* pursuant to R 113-01 and 113-02, or meet the requirements for issuance of same, as set forth therein; and
- (2) have successfully completed at least a seven-hour training course approved by the *Department* and conducted by an educator or educational institution or program accredited by the *Department* in the areas of knowledge relevant to the duties of a fire safety/EAP director, including threat analysis and response and other homeland security issues; building evacuation, in-building relocation and shelter in place planning; elevator operation and building ventilation; special needs of the infirm and disabled, and incident command structure and emergency response operations; as set forth in the *Department's* notice of examination and R113-04 and R113-06[.]; and
- (3) at time of renewal of such certificate, receipt of a passing grade on a practical (on-site) examination administered by the *Department* for such certificate, when required by this section, in the manner set forth in R113-02(c)(6) and R113-02(f)(2)(C).

\* \* \*

(f) [Change in] Registration of Work Location. The fire safety/EAP director *certificate of fitness* is issued for a specific work location. [A change in work location must be immediately reported to the Licensing Unit of the *Bureau of Fire Prevention*, and *application* made for an original practical (on-site) examination at the new work location prior to commencing work at such location.] Applicants for, or holders of, a fire safety/EAP director *certificate of fitness* must register each work location at which they will be performing the duties of a fire safety/EAP director. A fire safety/EAP director *certificate of fitness* does not authorize the holder to perform such duties at any location other than work locations registered with the *Department*. The registration of work locations, including submission, limitation on work location, change in work location, and not in use provisions, shall be conducted and regulated in the manner set forth in R113-02(f).

### **§ 113-09 Non-Production Laboratory Certificates of Fitness**

(a) Scope. This section sets forth standards, requirements and procedures for issuance of *certificates of fitness for non-production laboratories*.

- (b) General Provisions. Applicants for *certificates of fitness for non-production laboratories* shall meet the minimum qualifications and comply with the general requirements for a *certificate of fitness* as set forth in FC113 and R113-01.
- (c) Qualifications. In addition to the qualifications set forth in FC113, applicants for *non-production laboratory certificates of fitness* shall possess and demonstrate to the satisfaction of the *Department* that they have accumulated 60 college credits as a result of satisfactory completion of course work at a college or university accredited by an accrediting body recognized by the United States Secretary of Education and the Council for Higher Education Accreditation. Of the 60 required credits, not less than 21 shall be in the field of engineering, chemistry, fire science or other *approved* field of study.
- (d) Special Application Requirements. In addition to the applicable requirements set forth in FC113, applicants shall demonstrate to the satisfaction of the *Department* that they have received training relating to the safe storage, *handling* and use of *hazardous materials*, including training in the requirements of FC2706 and any *rules* promulgated pursuant to such section.

#### STATEMENT OF BASIS AND PURPOSE FOR CHAPTER 1 (ADMINISTRATION):

This chapter has been amended to add a new subdivision (f) to existing rule 3 RCNY 102-01. The amendment sets forth the standard for compliance with new Fire Code requirements for construction projects that were in progress on July 1, 2008, the effective date of the new Fire Code.

This chapter has also been amended by amending subdivisions (c) and (f) of existing rules 3 RCNY 113-02 and 113-03 with respect to the renewal qualifications and registration of work locations for fire safety directors and fire safety/EAP directors having more than one work location registered with the Department. Special approval is now required for fire safety directors to register more than two work locations, to ensure that they can demonstrate and maintain proficiency at multiple work locations.

This chapter has also been amended to add a new section (R113-09) that sets forth standards, requirements and procedures for issuance of certificates of fitness for non-production laboratories. R113-09 differs from existing rule 3 RCNY 10-01(c)(1) in that it allows qualified undergraduate students to conduct independent research in non-production laboratories. The existing rule was limited to graduate students.

The Fire Department had proposed a new Section, R104-02, setting forth standards, requirements and procedures for the professional certification, pursuant to FC104.2.1, of the design and installation of fire alarm systems. Public comments were received in response to this proposed rule, which are still under review. The Fire Department intends to separately promulgate this section as a final rule at a later date.

The Fire Department had proposed a new Section, R105-01, setting forth standards, requirements and procedures for the submission for Department review and approval of design and installation documents for fire alarm systems. Public comments were received in response to this proposed rule, which are still under review. The Fire Department intends to separately promulgate this section as a final rule at a later date.

Section 3. Subdivision (c) of §202-01 of Title 3 of the Rules of the City of New York is hereby amended to read as follows:

## 202-01 Definitions

\* \* \*

### (c) Definitions

**Administrative Code.** New York City Administrative Code.

**Alarm service.** See R901-01(b).

**Approved central station company.** See R901-01(b).

**Asphalt melter.** An *approved* device designed to heat asphalt, typically for waterproofing operations, that, utilizing a *flammable gas* or a *combustible liquid*, generates an enclosed flame that indirectly heats a vessel containing the asphalt.

**Bureau of Fire Prevention.** Bureau of Fire Prevention of the New York City Fire Department.

**Central station company.** See R901-01(b).

**Central station signaling system.** See R901-01(b).

**Core building system.** Reserved.

**Department of Buildings.** New York City Department of Buildings.

**Department of Consumer Affairs.** New York City Department of Consumer Affairs.

**Department of Environmental Protection.** New York City Department of Environmental Protection.

**Designated representative.** See R901-01(b).

**Designated smoking room.** See R310-01(b).

**ECB.** See R109-01(b).

**Electrical Code.** The New York City Electrical Code.

**Fire Prevention Code.** The New York City Fire Prevention Code, repealed effective July 1, 2008 by New York City Local Law No. 26 of 2008.

**Flammable plastic foam product.** See R315-01(b).

**gpm.** Gallons per minute.

**Inspector's test connection.** See R903-01(b).

**Letter of approval.** Reserved.

**Mandatory system.** See R901-01(b).

**Mobile CNG motor fuel system.** See R2208-01(b).

**Mobile CNG cascade.** See R2208-01(b).

**Natural gas.** A mixture of hydrocarbon gases and vapors, consisting principally of methane in gaseous form.

**Notice of disposal.** See R104-03(b).

**Notice of seizure.** See R104-03(b).

**Notice of violation.** See R109-01(b).

**OATH.** New York City Office of Administrative Trials and Hearings.

**Piped natural gas.** *Natural gas* supplied by means of piping connected to a public utility distribution system.

**Plumber.** A licensed master plumber, as that term is defined by the *Building Code*, or a person working under the direct and continuing supervision of a licensed master plumber, as authorized by said code.

**Pre-existing (facility or condition).** See R102-01(b).

**Pressure reducing devices.** See R905-01(b).

**Pressure restrictors.** See R905-01(b).

**Professional certification.** Reserved.

**Proprietary central station.** See R901-01(b).

**Proprietary signaling system.** See R901-01(b).

**psi.** Pounds per square inch.

**psig.** Pounds per square inch gauge.

**Runner service.** See R901-01(b).

**Subscriber.** See R901-01(b).

**Tar kettle.** A device designed to heat tar, asphalt, pitch or similar materials, typically for waterproofing operations, that, utilizing a *flammable gas* or a *combustible liquid*, generates a flame to heat a vessel containing such a material. *Tar kettle* does not include *asphalt melters*.

**Terminal.** See R901-01(b).

**Transmitter.** See R901-01(b).

**Voluntary system.** See R901-01(b).

**Window/egress gate.** See R1025-01(b).

STATEMENT OF BASIS AND PURPOSE OF PROPOSED RULE:

The list of defined terms in section 202-01(c) has been amended to include terms defined in this rule promulgation.

Section 4. Chapter 4 of Title 3 of the Rules of the City of New York is hereby amended by adding two new sections, §§ 403-01 and 408-02, to read as follows:

**CHAPTER 4  
EMERGENCY PLANNING AND PREPAREDNESS**

[§401-407 Reserved]

§401-402 Reserved

§403-01 Fire Safety Precautions at Street Fairs and Similar Outdoor Public  
Gatherings

<u>§404-407</u>	<u>Reserved</u>
<u>§408-01</u>	<u>Residential Buildings With Non-Sequential or Non-Standard Floor Numbering</u>
<u>§408-02</u>	<u>Residential Fire Safety Guides and Notices</u>

**§ 403-01 Fire Safety Precautions at Street Fairs and Similar Outdoor Public Gatherings**

(a) Scope. This section sets forth requirements and procedures for the storage, handling and use of portable fueled equipment and other fire safety precautions at street fairs, bazaars, carnivals, concerts, festivals and similar outdoor public gatherings.

(b) General Provisions

(1) Responsibility of sponsor, promoter and concessionaires

(A) The sponsor and any promoter of a street fair or similar outdoor public gathering shall ensure that such event is conducted in compliance with the fire safety requirements applicable to such event, as set forth in the Fire Code, the *rules* and this section.

(B) Each concessionaire at a street fair or similar outdoor public gathering shall ensure that its materials, operations and facilities are designed, installed, operated and maintained in compliance with the requirements of the Fire Code, the *rules*, and this section.

(2) Prohibited storage, handling and use of CNG and flammable liquids

(A) The storage, handling and use of *CNG* is prohibited at street fairs and similar outdoor public gatherings pursuant to FC3507.3(15).

(B) It shall be unlawful to store, handle or use *flammable liquids* at street fairs and similar outdoor public gatherings, except in *listed* generators or other device, equipment or system or operation approved by the *Department*. Incidental storage of *flammable liquids* is prohibited, and all fueling of generators and other approved devices, equipment and systems shall be conducted only at times other than when the event is open to the public.

(3) Site plan, permits and inspections

(A) Not later than five (5) business days prior to the date of any street fair or similar outdoor public gathering requiring a permit from the New York City Office of Citywide Events Coordination and Management, the sponsor and any promoter of such event shall file a site plan with the plan intake window of the *Bureau of Fire Prevention*, together with the

required plan review fee set forth in FC Appendix A, indicating the streets or other locations upon which the event will be held or surrounding the event; any areas, booths, tents or other facilities and locations to be occupied by concessionaires; the identity of such concessionaires and the nature of the activity they will conduct; and the location of any portable fueled equipment, portable generators and other devices, equipment, systems, materials and operations regulated by the Fire Code or the rules, and the storage, handling and use of hazardous materials in connection therewith.

- (B) The Department will review such plan and notify the sponsor if there are unlawful or unsafe conditions that must be addressed prior to the event.
- (C) The Department shall issue a single combined permit for each type of material and operation associated with the event.
- (D) The Department may conduct a pre-event site inspection. The sponsor or the promoter shall be responsible for the inspection fee set forth in FC Appendix A.

(4) Supervision

- (A) The sponsor and any promoter shall ensure that all devices, equipment, systems, materials and/or operations required by the Fire Code or the rules to be supervised by a certificate of fitness holder shall be so supervised during the event.
- (B) Certificate of fitness holders shall, at a minimum, inspect each device, equipment or system and incidental storage area prior to commencement of use each day, to confirm that all such devices, equipment and systems are in good working order and that all necessary and appropriate fire safety precautions have been taken. A record of such surveillance shall be maintained either at a central location for all concessionaires, or at each concession area, booth or other location, and shall be made available for inspection by any Department representative.
- (C) The handling and use of LPG, and incidental storage thereto, including LPG used to fuel portable cooking equipment, shall be under the personal supervision of a holder a certificate of fitness for such material, in accordance with FC3801.5.6.
- (D) The handling and use of kerosene and other combustible liquids, and storage incidental thereto, shall be under the personal supervision of a holder of a certificate of fitness for such material, when the aggregate amount of such combustible liquids requires a permit pursuant to R403-01(c).



(c) Specific Hazardous Material Requirements. Hazardous materials shall be stored, *handled* and used at street fairs and similar outdoor events in compliance with the requirements of FC Chapters 3, 34 and 38, and the following requirements:

(1) General

(A) *Permits* for the *handling* and use, and incidental storage, of hazardous materials at street fairs and similar outdoor public gatherings shall be obtained based on the aggregate amount of the material, including the amounts of such material stored, *handled* or used by all concessionaires.

(B) Concessionaire areas shall be designed and arranged, through the use of booths, portable barricades or fences, or other *approved* means, to separate *portable fueled equipment* from the public. The public shall not be allowed inside such booths or enclosures.

(2) Liquefied petroleum gases (LPG). *LPG handling* and use, and storage incidental thereto, shall comply with the requirements of R3809-01.

(3) Kerosene and other combustible liquids

(A) The sponsor or any promoter of the event shall obtain a *permit* for the *handling* and use of kerosene and other *combustible liquids*, and storage incidental thereto, when the aggregate amount exceeds ten (10) gallons.

(B) The amount of kerosene and other *combustible liquids* that may be stored by each concessionaire incidental to *handling* and use shall not exceed ten (10) gallons, and such incidental storage shall be in *approved safety cans*.

(C) Kerosene and other *combustible liquids* shall only be used in *listed* devices, equipment and systems.

(d) Other Fire Safety Precautions

(1) Membrane structures. All *tents, air-inflated structures* and other membrane structures shall be installed, operated and maintained in compliance with the requirements of FC Chapter 24.

(2) Portable fire extinguisher requirements. Each concessionaire's area, booth, tent or other *facility* or location in which a *hazardous material* is being stored, *handled* or used, an operation is being conducted or other *facility* is being maintained, shall be provided with at least one (1) portable fire extinguisher having a minimum 10-B:C rating.

- (3) Combustible waste containers. Each concessionaire's area, booth, tent or other facility or location shall be equipped with at least one (1) covered container for storage of combustible waste. Rubbish and other combustible waste shall be stored in such containers, which shall not be allowed to overflow.
- (4) Fire apparatus access. Fire apparatus access shall be provided, by maintaining an unobstructed fire lane of not less than 15 feet in width.
- (5) Fire hydrants and fire alarm boxes. The visibility of, and immediate access to, fire hydrants and fire alarm boxes shall be maintained at all times. Fire hydrants and fire alarm boxes shall be maintained free of signs or other articles or obstructions. The sponsor or promoter of the event shall conspicuously mark a solid yellow circle 12 inches in diameter in the center of the emergency access lane to indicate the location of each fire hydrant within the boundaries of the event.
- (6) Fire escape ladders. Fire escape ladders shall not be obstructed in any manner that would impede their operation.
- (7) Vacant buildings. Vacant buildings and temporarily unoccupied buildings in the immediate vicinity of the event shall be secured as set forth in FC311.

#### **§ 408-02 Residential Fire Safety Guides and Notices**

- (a) Scope. This section sets forth standards, requirements and procedures for the preparation, posting and/or distribution of residential fire safety guides and notices required pursuant to FC408.9.
- (b) General Provisions
  - (1) Applicability. This section applies to all buildings or parts thereof in Occupancy Group R-2, except:
    - (A) buildings or parts thereof subject to the provisions of FC404.2.1(8); and
    - (B) school and college dormitories, unless such dormitories are required to comply with this section pursuant to FC408.10.
  - (2) Fire safety guides. The owner of a building or part thereof subject to this section shall prepare a fire safety guide and distribute such guide to the occupants thereof in compliance with the requirements of FC408.9 and R408-02(c).
  - (3) Fire safety notices. The owner of a building or part thereof subject to this section shall prepare, post and maintain fire safety notices in compliance with the requirements of FC408.9 and R408-02(d).

(4) Access to dwelling units. Tenants and other occupants of dwelling units in buildings and parts thereof subject to this section shall allow the owner of such premises access to such dwelling unit, upon reasonable notice, for purposes of compliance with this section.

(c) Fire Safety Guide Requirements

(1) Purpose. The fire safety guide shall serve to inform occupants of the building, including building service employees, of the building's construction, fire protection systems, means of egress, and evacuation and other procedures to be followed in the event of fire in the building.

(2) Form. A fire safety guide shall be:

(A) substantially similar in format to the sample fire safety guide annexed to this section as Appendix 1, and include all of the information contained in such sample fire safety guide;

(B) printed as a single-sided or double-sided document, stapled or bound, in full-page or booklet format, on paper not smaller than 8½ inches by 11 inches nor larger than 8½ inches by 14 inches in size;

(C) printed such that all text is clearly legible, using contrasting lettering and a type size not smaller than eleven (11) point Times New Roman or equivalent; and

(D) printed in English. The owner may print the fire safety guide in such other additional languages (including symbols) as the owner concludes would benefit building occupants.

(3) Content. The fire safety guide shall consist of two (2) sections: a building information section and a fire emergency information section. The fire emergency information section shall reproduce the entire text of that section as set forth in the sample fire safety guide annexed hereto as Appendix 1. The building information section shall be completed by the owner with the following information:

(A) The address of the premises. A separate fire safety guide shall be prepared for each building, except buildings that have common means of egress.

(B) The name and address of the owner of the building or the owner's representative, unless the fire safety guide is prepared on a letterhead containing such information. For purposes of the fire safety guide, the owner's representative shall be any person or company authorized by the owner to receive and respond to complaints, violations or questions regarding building fire safety.

- (C) The number of floors in the building, above and below ground level.
- (D) The year the building was constructed.
- (E) Whether the building is of combustible or non-combustible construction. For purposes of the fire safety guide, all buildings, including non-residential buildings containing residential occupancies, shall be deemed to be of “combustible construction” unless:
- (1) The current Certificate of Occupancy for the building issued by the Department of Buildings or a Letter of No Objection by same indicates that the building is of “non-combustible” construction or “fireproof” construction; or
  - (2) If there is no Certificate of Occupancy or Letter of No Objection for the building, a registered design professional has provided written certification that the building is of “non-combustible” construction within the meaning of the 1968 or 2008 Building Code, or “fireproof” construction within the meaning of the Building Code in effect prior to 1968.
- (F) Whether the building is equipped with a sprinkler system, and if so, whether such sprinkler system protects the entire building or only certain areas, and, if only certain areas, specifying those areas (for example, “the compactor chute on each floor and the compactor room and boiler room in the basement”).
- (G) Whether the building is equipped with a fire alarm system, and if so:
- (1) the general location of the manual fire alarm boxes of such system (for example, “by the main entrance of building and next to the stairwell at each end of the corridor on each floor”); and
  - (2) whether the manual fire alarm boxes, when activated, transmit an alarm to an approved central station that notifies the Department.
- (H) Whether the building is equipped with a one-way voice communication system pursuant to Building Code Section 907.2.12.2 (Exception 3), or other public address system (apart from any intercom system), and if so, the location of the speakers.
- (I) All means of egress from the building, and the general location and any identification number of such means of egress, including:
- (1) unenclosed interior stairwells;

- (2) enclosed interior stairwells;
  - (3) exterior stairwells;
  - (4) fire tower stairwells;
  - (5) fire escapes;
  - (6) all exits from the building (for example, “main entrance on first floor exiting onto 1st Avenue; service entrance from basement level exiting by ramp onto 5th Street; emergency exit (with alarm) from stairwell exiting on north side of building with access to 5th Street; rear entrance at basement level to rear yard with no access to street; emergency exit (with alarm) at top of stairwell to roof with no access to ground or adjoining buildings.”);
- (J) The date the fire safety guide was prepared; and
- (K) Any other fire safety information or requirements (including lease provisions, house rules or other private building regulations) that the owner may wish to include, such as restrictions on storage or decoration. Any private building regulations shall be clearly identified as such.
- (4) Accuracy of information. The *owner* of each building shall be responsible for the accuracy of the information contained in the building information section of the fire safety guide and for the accurate reproduction of the fire emergency section of such fire safety guide.
- (5) Distribution. The fire safety guide shall be distributed as follows:
- (A) To each dwelling unit in the building, or an occupant thereof, and to each building service employee;
  - (B) on an annual basis, by hand delivery or mailing a copy by first class mail, during Fire Prevention Week (observed during the month of October), or, if the fire safety guide is distributed together with the window guard notices required by New York City Administrative Code §17-123, at such time as the rules of the New York City Department of Health and Mental Hygiene require the annual distribution of such window guard notices to be made; and
  - (C) within 60 days of any material change in building conditions affecting the content of the fire safety guide, other than temporary repairs or maintenance work. Nothing contained herein shall be construed to relieve an *owner* of any residential building or part thereof of any duty to notify

building occupants, the *Department* or other party that any *fire protection system* is not functional.

- (D) To a new occupant, by providing a copy at the time the lease, sublease or other agreement allowing occupancy of the dwelling unit is presented to the occupant for signature, or, if there is no written agreement, not later than at the date the occupant assumes occupancy of the *premises*.
- (E) To a new building service employee, by providing a copy to such employee not later than the date upon which the employee actually commences to perform duties at the *premises*.
- (F) Each distribution of the fire safety guide shall be documented by a United States Postal Service certificate of mailing or other official proof of mailing, or, if hand delivered, by receipt signed by an occupant of the dwelling unit or the building service employee, or by sworn affidavit of the employee or agent of the *owner* who actually delivered the fire safety guide, identifying the date and manner of delivery and the dwelling units to which it was delivered or the names of the occupants who received it.

(6) Inspection. The *owner* shall make available for inspection upon request of any *Department* representative a copy of the last three (3) annual fire safety guides and proof of distribution.

(d) Fire Safety Notice Requirements

- (1) Purpose. The fire safety notice shall serve to inform occupants of the building, including building service employees and visitors, as to the evacuation and other procedures to be followed in the event of *fire* in the building.
- (2) Form. Each fire safety notice shall be:
  - (A) substantially similar in format to the sample fire safety notice annexed to this section as Appendix 2, and include all of the information contained in such sample fire safety notice;
  - (B) printed on a single-sided sheet of paper framed under a clear plexiglas cover or laminated with a firm backing and designed to be affixed by mounting hardware or an adhesive, or printed on a matte-finish vinyl adhesive-backed decal not less than three (3) mils in thickness, using thermalprinting, screenprinting or other permanent, water-resistant printing technique;
  - (C) 5½ inches by 8½ inches in size (excluding any frame), except that fire safety notices to be posted in the common area of the residential building or part thereof may be up to 8½ by 11 inches in size;

- (D) printed such that all text is clearly legible, using contrasting lettering and a type size not smaller than ten (10) point Times New Roman or equivalent; and
- (E) printed in the English language. The *owner* may print the fire safety notice in such other additional languages (including symbols) as the *owner* concludes would benefit the building occupants. In such event, the fire safety notice may exceed 5½ inches by 8½ inches in size.
- (3) Content. The fire safety notice shall reproduce the entire text of the sample fire notice annexed hereto as Appendix 2 that is applicable to the building, as follows:

  - (A) Noncombustible construction. The text of this notice shall be used for dwelling unit doors and common areas when the building is of noncombustible construction within the meaning set forth in R408-02(c)(3)(E).
  - (B) Combustible construction. The text of this notice shall be used for dwelling unit doors and common areas when the building is of combustible construction within the meaning set forth in R408-02(c)(3)(E).
- (4) Accuracy of information. The *owner* of each residential building or part thereof subject to the requirements of this section shall be responsible for the accurate reproduction of the fire safety notices.
- (5) Posting.

  - (A) Location. A fire safety notice shall be posted in each of the following locations:

    - (1) Dwelling unit door. On the inside surface of the front or main entrance door of each dwelling unit in the building.
    - (2) Common area. In a conspicuous location near any common mailbox area customarily used by building occupants, or if there is no common mailbox area, in a conspicuous location in or near the elevators or main stairwell.
  - (B) Method of posting. Each fire safety notice shall be securely affixed, by mounting hardware or an adhesive, to the door or wall such that no part of the fire safety notice (excluding any frame) is lower than four (4) feet from the floor, nor higher than five and a half (5½) feet from the floor.

- (C) Posting of Building Information Section. A copy of Part I of the fire safety guide (the building information section) shall be posted with the fire safety notice in the common area. Such posting shall be in the same form as the fire safety notice.
- (6) Maintenance and replacement. The *owner* shall maintain the fire safety notice in the common area and shall prepare and post any amended Part I (building information section) of the fire safety guide within sixty days of any material change in building conditions requiring such amended fire safety guide. The *owner* shall replace any missing or damaged notice on the dwelling unit door prior to any lawful change in occupancy of the dwelling unit. The *owner* shall replace any missing or damaged notice at any other time upon written request of the tenant. The tenant may be charged the reasonable cost of replacement.



**APPENDIX 1**

**FIRE SAFETY GUIDE**  
**PART I -- BUILDING INFORMATION SECTION**

**BUILDING ADDRESS:** \_\_\_\_\_

**BUILDING OWNER/REPRESENTATIVE:**

**Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Telephone:** \_\_\_\_\_

**BUILDING INFORMATION:**

**Year of Construction:** \_\_\_\_\_

**Type of Construction:**  Combustible  Non-Combustible

**Number of Floors:** \_\_\_\_\_ Aboveground \_\_\_\_\_ Belowground

**Sprinkler System:**  Yes  No

**Sprinkler System Coverage:**  Entire Building  Partial (*complete all that apply*):

- Dwelling Units: \_\_\_\_\_
- Hallways: \_\_\_\_\_
- Stairwells: \_\_\_\_\_
- Compactor Chute: \_\_\_\_\_
- Other: \_\_\_\_\_

**Fire Alarm:**  Yes  Transmits Alarm to Fire Dept/Fire Alarm Co  No

**Location of Manual Pull Stations:** \_\_\_\_\_  
\_\_\_\_\_

**Public Address System:**  Yes  No

**Location of Speakers:**  Stairwell  Hallway  Dwelling Unit  Other: \_\_\_\_\_  
\_\_\_\_\_

**Means of Egress** (e.g., Unenclosed/Enclosed Interior Stairs, Exterior Stairs, Fire Tower Stairs, Fire Escapes, Exits):

<b><u>Type of Egress</u></b>	<b><u>Identification</u></b>	<b><u>Location</u></b>	<b><u>Leads to</u></b>

**Other Information:** \_\_\_\_\_  
\_\_\_\_\_

**DATE PREPARED:** \_\_\_\_\_

**FIRE SAFETY GUIDE**  
**PART II – FIRE EMERGENCY INFORMATION**

**BUILDING**  
**ADDRESS:** \_\_\_\_\_

**THIS FIRE SAFETY GUIDE IS INTENDED TO HELP YOU AND THE MEMBERS OF YOUR HOUSEHOLD PROTECT YOURSELVES IN THE EVENT OF FIRE. THIS FIRE SAFETY GUIDE CONTAINS:**

- **Basic fire prevention and fire preparedness measures that will reduce the risk of fire and maximize your safety in the event of a fire.**
- **Basic information about your building, including the type of construction, the different ways of exiting the building, and the types of fire safety systems it may have.**
- **Emergency fire safety and evacuation instructions in the event of fire in your building.**

**PLEASE TAKE THE TIME TO READ THIS FIRE SAFETY GUIDE AND TO DISCUSS IT WITH THE MEMBERS OF YOUR HOUSEHOLD. FIRE PREVENTION, PREPAREDNESS, AND AWARENESS CAN SAVE YOUR LIFE!**

**IN THE EVENT OF A FIRE,**

**CALL 911**

**OR THE FIRE DEPARTMENT DISPATCHER, AT**

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

**OR TRANSMIT AN ALARM FROM**  
**THE NEAREST FIRE ALARM BOX**

**BASIC FIRE PREVENTION AND FIRE PREPAREDNESS MEASURES**

These are fire safety tips that everybody should follow:

1. Every apartment should be equipped with at least one smoke detector. (All apartment buildings constructed after July 2009 are required to be equipped with multiple interconnected smoke alarms that sound throughout an apartment.) Check them periodically to make sure they work. Most smoke detectors can be tested by pressing the

- test button. Replace the batteries in the spring and fall when you move your clocks forward or back an hour, and whenever a smoke detector chirps to signal that its battery is low. The smoke detector should be replaced on a regular basis in accordance with the manufacturer's recommendation, but at least once every ten years.
2. Carelessly handled or discarded cigarettes are the leading cause of fire deaths. Never smoke in bed or when you are drowsy, and be especially careful when smoking on a sofa. Be sure that you completely extinguish every cigarette in an ashtray that is deep and won't tip over. Never leave a lit or smoldering cigarette on furniture.
  3. Matches and lighters can be deadly in the hands of children. Store them out of reach of children and teach them about the danger of fire.
  4. Do not leave cooking unattended. Keep stove tops clean and free of items that can catch on fire. Before you go to bed, check your kitchen to ensure that your oven is off and any coffeepot or teapot is unplugged.
  5. Never overload electrical outlets. Replace any electrical cord that is cracked or frayed. Never run extension cords under rugs. Use only power strips with circuit-breakers.
  6. Keep all doorways and windows leading to fire escapes free of obstructions, and report to the owner any obstructions or accumulations of rubbish in the hallways, stairwells, fire escapes or other means of egress.
  7. Install window gates only if it is absolutely necessary for security reasons. Install only approved window gates. Do not install window gates with key locks. A delay in finding or using the key could cost lives. Maintain the window gate's opening device so it operates smoothly. Familiarize yourself and the members of your household with the operation of the window gate.
  8. Familiarize yourself and members of your household with the location of all stairwells, fire escapes and other means of egress.
  9. With the members of your household, prepare an emergency escape route to use in the event of a fire in the building. Choose a meeting place a safe distance from your building where you should all meet in case you get separated during a fire.
  10. Exercise care in the use and placement of fresh cut decorative greens, such as Christmas trees and holiday wreaths. If possible, keep them planted or in water. Do not place them in public hallways or where they might block egress from your apartment if they catch on fire. Keep them away from any flame, including fireplaces. Do not keep for extended period of time; as they dry, decorative greens become easily combustible.

## **BUILDING INFORMATION**

## **Building Construction**

In a fire emergency, the decision to leave or to stay in your apartment will depend in part on the type of building you are in.

Residential buildings built before 1968 are generally classified either as “fireproof” or “non-fireproof.” Residential buildings built in or after 1968 are generally classified either as “combustible” or “non-combustible.” The type of building construction generally depends on the size and height of the building.

A “non-combustible” or “fireproof” building is a building whose structural components (the supporting elements of the building, such as steel or reinforced concrete beams and floors) are constructed of materials that do not burn or are resistant to fire and therefore will not contribute to the spread of the fire. In such buildings, fires are more likely to be contained in the apartment or part thereof in which they start and less likely to spread inside the building walls to other apartments and floors. THIS DOES NOT MEAN THAT THE BUILDING IS IMMUNE TO FIRE. While the structural components of the building may not catch fire, all of the contents of the building (including furniture, carpeting, wood floors, decorations and personal belongings) may catch on fire and generate flame, heat and large amounts of smoke, which can travel throughout the building, especially if apartment or stairwell doors are left open.

A “combustible” or “non-fireproof” building has structural components (such as wood) that will burn if exposed to fire and can contribute to the spread of the fire. In such buildings, the fire can spread inside the building walls to other apartments and floors, in addition to the flame, heat and smoke that can be generated by the burning of the contents of the building.

**Be sure to check Part I (Building Information Section) of this fire safety guide to see what type of building you are in.**

## **Means of Egress**

All residential buildings have at least one means of egress (way of exiting the building), and most have at least two. There are several different types of egress:

Interior Stairs: All buildings have stairs leading to the street level. These stairs may be enclosed or unenclosed. Unenclosed stairwells (stairs that are not separated from the hallways by walls and doors) do not prevent the spread of flame, heat and smoke. Since flame, heat and smoke generally rise, unenclosed stairwells may not ensure safe egress in the event of a fire on a lower floor. Enclosed stairs are more likely to permit safe egress from the building, if the doors are kept closed. It is important to get familiar with the means of egress available in your building.

Exterior Stairs: Some buildings provide access to the apartments by means of stairs and corridors that are outdoors. The fact that they are outdoors and do not trap heat and smoke enhances their safety in the event of a fire, provided that they are not obstructed.

Fire Tower Stairs: These are generally enclosed stairwells in a “tower” separated from the building by air shafts open to the outside. The open air shafts allow heat and smoke to escape from the building.

Fire Escapes: Many older buildings are equipped with a fire escape on the outside of the building, which is accessed through a window or balcony. Fire escapes are considered a “secondary” or alternative means of egress, and are to be used if the primary means of egress (stairwells) cannot be safely used to exit the building because they are obstructed by flame, heat or smoke.

Exits: Most buildings have more than one exit. In addition to the main entrance to the building, there may be separate side exits, rear exits, basement exits, roof exits and exits to the street from stairwells. Some of these exits may have alarms. Not all of these exits may lead to the street. Roof exits may or may not allow access to adjoining buildings.

**Be sure to review Part I (Building Information Section) of this fire safety guide and familiarize yourself with the different means of egress from your building.**

### **Fire Sprinkler Systems**

A fire sprinkler system is a system of pipes and sprinkler heads that when triggered by the heat of a fire automatically discharges water that extinguishes the fire. The sprinkler system will continue to discharge water until it is turned off. When a sprinkler system activates, an alarm is sounded.

Sprinkler systems are very effective at preventing fire from spreading beyond the room in which it starts. However, the fire may still generate smoke, which can travel throughout the building.

Apartment buildings constructed before March 1999 were generally not required to have fire sprinkler systems. Some apartment buildings are equipped with sprinkler systems, but only in compactor chutes and rooms or boiler rooms. All apartment buildings constructed after March 1999 are required by law to be equipped with fire sprinkler systems throughout the building.

**Be sure to review Part I (Building Information Section) of this fire safety guide to learn whether your building is equipped with fire sprinkler systems.**

### **Interior Fire Alarm Systems**

Although generally not required, some residential buildings are equipped with interior fire alarm systems that are designed to warn building occupants of a fire in the building. Interior fire alarm systems generally consist of a panel located in a lobby or basement, with manual pull stations located near the main entrance and by each stairwell door. Interior fire alarm systems are usually manually-activated (must be pulled by hand) and do not automatically transmit a signal to the Fire Department, so a telephone call must still be made to 911 or the Fire Department dispatcher. Do not assume that the Fire Department has been notified because you hear a fire alarm or smoke detector sounding in the building.

**Be sure to review Part I (Building Information Section) of this fire safety guide to learn whether your building is equipped with an interior fire alarm system and whether the alarm is transmitted to the Fire Department, and familiarize yourself with the location of the manual pull stations and how to activate them in the event of a fire.**

### Public Address Systems

Although generally not required, some residential buildings are equipped with public address systems that enable voice communications from a central location, usually in the building lobby. Public address systems are different from building intercoms, and usually consist of loudspeakers in building hallways and/or stairwells.

Starting in July 2009, residential buildings that are more than 125 feet in height are required by law to be equipped with a one way voice communication system that will enable Fire Department personnel to make announcements from the lobby to building occupants in their apartments or in building stairwells.

**Be sure to review Part I (Building Information Section) of this fire safety guide to learn whether your building is equipped with a public address system.**

## **EMERGENCY FIRE SAFETY AND EVACUATION INSTRUCTIONS**

**IN THE EVENT OF A FIRE, FOLLOW THE DIRECTIONS OF FIRE DEPARTMENT PERSONNEL. HOWEVER, THERE MAY BE EMERGENCY SITUATIONS IN WHICH YOU MAY BE REQUIRED TO DECIDE ON A COURSE OF ACTION TO PROTECT YOURSELF AND THE OTHER MEMBERS OF YOUR HOUSEHOLD.**

**THIS FIRE SAFETY GUIDE IS INTENDED TO ASSIST YOU IN SELECTING THE SAFEST COURSE OF ACTION IN SUCH AN EMERGENCY. PLEASE NOTE THAT NO FIRE SAFETY GUIDE CAN ACCOUNT FOR ALL OF THE POSSIBLE FACTORS AND CHANGING CONDITIONS; YOU WILL HAVE TO DECIDE FOR YOURSELF WHAT IS THE SAFEST COURSE OF ACTION UNDER THE CIRCUMSTANCES.**

### **General Emergency Fire Safety Instructions**

1. Stay calm. Do not panic. Notify the Fire Department as soon as possible. Firefighters will be on the scene of a fire within minutes of receiving an alarm.
2. Because flame, heat and smoke rise, generally a fire on a floor below your apartment presents a greater threat to your safety than a fire on a floor above your apartment.
3. Do not overestimate your ability to put out a fire. Most fires cannot be easily or safely extinguished. Do not attempt to put the fire out once it begins to quickly spread. If you attempt to put a fire out, make sure you have a clear path of retreat from the room.
4. If you decide to exit the building during a fire, close all doors as you exit to confine the fire. Never use the elevator. It could stop between floors or take you to where the fire is.
5. Heat, smoke and gases emitted by burning materials can quickly choke you. If you are caught in a heavy smoke condition, get down on the floor and crawl. Take short breaths, breathing through your nose.
6. If your clothes catch fire, don't run. Stop where you are, drop to the ground, cover your face with your hands to protect your face and lungs and roll over to smother the flames.

### **Evacuation Instructions If The Fire Is In Your Apartment**

#### **(All Types of Building Construction)**

1. Close the door to the room where the fire is, and leave the apartment.
2. Make sure **EVERYONE** leaves the apartment with you.
3. Take your keys.

4. Close, but do not lock, the apartment door.
5. Alert people on your floor by knocking on their doors on your way to the exit.
6. Use the nearest stairwell to exit the building.
7. **DO NOT USE THE ELEVATOR.**
8. Call 911 once you reach a safe location. Do not assume the fire has been reported unless firefighters are on the scene.
9. Meet the members of your household at a predetermined location outside the building. Notify responding firefighters if anyone is unaccounted for.

### **Evacuation Instructions If The Fire Is Not In Your Apartment**

#### **“NON-COMBUSTIBLE” OR “FIREPROOF” BUILDINGS:**

1. Stay inside your apartment and listen for instructions from firefighters unless conditions become dangerous.
2. If you must exit your apartment, first feel the apartment door and doorknob for heat. If they are not hot, open the door slightly and check the hallway for smoke, heat or fire.
3. If you can safely exit your apartment, follow the instructions above for a fire in your apartment.
4. If you cannot safely exit your apartment or building, call 911 and tell them your address, floor, apartment number and the number of people in your apartment.
5. Seal the doors to your apartment with wet towels or sheets, and seal air ducts or other openings where smoke may enter.
6. Open windows a few inches at top and bottom unless flames and smoke are coming from below. Do not break any windows.
7. If conditions in the apartment appear life-threatening, open a window and wave a towel or sheet to attract the attention of firefighters.
8. If smoke conditions worsen before help arrives, get down on the floor and take short breaths through your nose. If possible, retreat to a balcony or terrace away from the source of the smoke, heat or fire.

#### **“COMBUSTIBLE” OR “NON-FIREPROOF” BUILDING**



1. Feel your apartment door and doorknob for heat. If they are not hot, open the door slightly and check the hallway for smoke, heat or fire.
2. Exit your apartment and building if you can safely do so, following the instructions above for a fire in your apartment.
3. If the hallway or stairwell is not safe because of smoke, heat or fire and you have access to a fire escape, use it to exit the building. Proceed cautiously on the fire escape and always carry or hold onto small children.
4. If you cannot use the stairs or fire escape, call 911 and tell them your address, floor, apartment number and the number of people in your apartment.
  - A. Seal the doors to your apartment with wet towels or sheets, and seal air ducts or other openings where smoke may enter.
  - B. Open windows a few inches at top and bottom unless flames and smoke are coming from below. Do not break any windows.
  - C. If conditions in the apartment appear life-threatening, open a window and wave a towel or sheet to attract the attention of firefighters.
  - D. If smoke conditions worsen before help arrives, get down on the floor and take short breaths through your nose. If possible, retreat to a balcony or terrace away from the source of the smoke, heat or fire.

## APPENDIX 2

### FIRE SAFETY NOTICES

The following fire safety notice shall be posted in buildings of non-combustible construction within the meaning of R408-02(c)(3)(E):

#### FIRE SAFETY NOTICE

**IN THE EVENT OF FIRE, STAY CALM. NOTIFY THE FIRE DEPARTMENT AND FOLLOW THE DIRECTIONS OF FIRE DEPARTMENT PERSONNEL. IF YOU MUST TAKE IMMEDIATE ACTION, USE YOUR JUDGMENT AS TO THE SAFEST COURSE OF ACTION, GUIDED BY THE FOLLOWING INFORMATION:**

YOU ARE IN A NON-COMBUSTIBLE (FIREPROOF) BUILDING

#### **If The Fire Is In Your Apartment**

- Close the door to the room where the fire is and leave the apartment.
- Make sure **EVERYONE** leaves the apartment with you.
- Take your keys.
- Close, but do not lock, the apartment door.
- Alert people on your floor by knocking on their doors on your way to the exit.
- Use the nearest stairwell to leave the building.
- **DO NOT USE THE ELEVATOR.**
- Call 911 once you reach a safe location. Do not assume the fire has been reported unless firefighters are on the scene.
- Meet the members of your household at a pre-determined location outside the building. Notify the firefighters if anyone is unaccounted for.

#### **If The Fire Is Not In Your Apartment**

- Stay inside your apartment and listen for instructions from firefighters unless conditions become dangerous.
- If you must exit your apartment, first feel the apartment door and doorknob for heat. If they are not hot, open the door slightly and check the hallway for smoke, heat or fire.

- If you can safely exit your apartment, follow the instructions above for a fire in your apartment.
- If you cannot safely exit your apartment or building, call 911 and tell them your address, floor, apartment number and the number of people in your apartment.
- Seal the doors to your apartment with wet towels or sheets, and seal air ducts or other openings where smoke may enter.
- Open windows a few inches at top and bottom unless flames and smoke are coming from below.
- Do not break any windows.
- If conditions in the apartment appear life-threatening, open a window and wave a towel or sheet to attract the attention of firefighters.
- If smoke conditions worsen before help arrives, get down on the floor and take short breaths through your nose. If possible, retreat to a balcony or terrace away from the source of the smoke, heat or fire.

*Note: Retain underlining of **highlighted** text in publication of final rule.*

The following fire safety notice shall be posted in buildings of combustible construction within the meaning of R408-02(c)(3)(E):

### **FIRE SAFETY NOTICE**

**IN THE EVENT OF FIRE, STAY CALM. NOTIFY THE FIRE DEPARTMENT AND FOLLOW THE DIRECTIONS OF FIRE DEPARTMENT PERSONNEL. IF YOU MUST TAKE IMMEDIATE ACTION, USE YOUR JUDGMENT AS TO THE SAFEST COURSE OF ACTION, GUIDED BY THE FOLLOWING INFORMATION:**

YOU ARE IN A COMBUSTIBLE (NON-FIREPROOF) BUILDING

#### **If The Fire Is In Your Apartment**

- Close the door to the room where the fire is and leave the apartment.
- Make sure **EVERYONE** leaves the apartment with you.
- Take your keys.
- Close, but do not lock, the apartment door.
- Alert people on your floor by knocking on their doors on your way to the exit.
- Use the nearest stairwell to leave the building.
- **DO NOT USE THE ELEVATOR.**
- Call 911 once you reach a safe location. Do not assume the fire has been reported unless firefighters are on the scene.
- Meet the members of your household at a pre-determined location outside the building. Notify the firefighters if anyone is unaccounted for.

#### **If The Fire Is Not In Your Apartment**

- Feel your apartment door and doorknob for heat. If they are not hot, open the door slightly and check the hallway for smoke, heat or fire.
- Exit the apartment and building if you can safely do so, following the instructions above for a fire in your apartment.
- If the hallway or stairwell is not safe because of smoke, heat, or fire and you have access to a fire escape, use it to exit the building. Proceed cautiously on the fire escape and always carry or hold onto small children.

- If you cannot use the stairs or the fire escape, call 911 and tell them your address, floor, apartment number and the number of people in your apartment.
- Seal the doors to your apartment with wet towels or sheets, and seal air ducts or other openings where smoke may enter.
- Open windows a few inches at top and bottom unless flames and smoke are coming from below.
- Do not break any windows.
- If conditions in the apartment appear life-threatening, open a window and wave a towel or sheet to attract the attention of firefighters.
- If smoke conditions worsen before help arrives, get down on the floor and take short breaths through your nose. If possible, retreat to a balcony or terrace away from the source of the flames, heat or smoke.

*Note: Retain underlining of **highlighted** text in publication of final rule.*

STATEMENT OF BASIS AND PURPOSE FOR CHAPTER 4 (EMERGENCY PLANNING AND PREPAREDNESS):

This chapter has been amended to add two sections, both of which were based on existing rules. R403-01 sets forth standards, requirements and procedures for fire safety at street fairs and other public gathering places. It was based on existing rule 3 RCNY 31-02, amended to implement the FC403 requirement of a site plan for such events, and to establish a new permitting procedure.

Section 408-02, which was based on existing rule 3 RCNY 43-01, sets forth standards, requirements and procedures for the preparation and distribution of residential fire safety guides (formerly denominated “residential fire safety plans”) and residential fire safety notices. The guide has been amended to revise the reference to sprinkler requirements for existing buildings, and to make reference to Building Code requirements enacted since Local Law No. 10 of 1999 with respect to interconnected smoke alarms and one-way voice communication systems.

Section 5. Chapter 9 of Title 3 of the Rules of the City of New York is hereby amended by adding a new section, §901-03, to read as follows:

**CHAPTER 9  
FIRE PROTECTION SYSTEMS**

§901-01	Central Station Monitoring of Fire Alarm Systems
§901-02	Maintenance of Sprinkler System Pressure Tanks
<u>§901-03</u>	<u>Portable Fire Extinguisher Sales</u>
§902	Reserved
§903-01	Flow Testing of Residential Sprinkler Systems
§904-01	Clean Agent Fire Extinguishing Systems Acceptance Testing
§905-01	Standpipe System Pressure Reducing Devices
§906-01	Portable Fire Extinguishers for Power Operated Cranes
§906-02	Portable Fire Extinguishers for Fuel Oil-Burning Equipment
§907-01	Fire Alarm Recordkeeping, Smoke Detector Maintenance, Testing and Recordkeeping, and the Prevention of Unnecessary and Unwarranted Fire Alarms
§908-911	Reserved
§912-01	Periodic Testing of Standpipe System and Sprinkler Systems With Fire Department Connections
§913-914	Reserved

**§ 901-03 Portable Fire Extinguisher Sales**

(a) Scope. This section sets forth requirements for the sale of portable fire extinguishers.

- (b) General Provisions. The sale of portable fire extinguishers door to door to owners of buildings or businesses for use on their premises shall be conducted in compliance with the requirements of FC 113, FC115, FC901.6.3.2 and this section.
- (c) Supervision. Pursuant to FC901.6.3.2, persons engaged in the business of selling portable fire extinguishers door to door to owners of buildings or businesses for use on their premises (except for sales to owners of Group R-2 and R-3 Occupancies) must possess a portable fire extinguisher sales company certificate. Persons employed by such portable fire extinguisher sales companies to perform such services, or otherwise engaged by such companies for such purpose, shall possess a certificate of fitness for portable fire extinguisher sales.

STATEMENT OF BASIS AND PURPOSE FOR PROPOSED RULE:

This chapter has been amended to add one new section (R901-03) that sets forth supervision requirements for the sale of portable fire extinguishers. This supervision requirement is consistent with the supervision requirements set forth in the Fire Code and rules for individuals engaged in the servicing of portable fire extinguishers, and consistent with the Fire Code requirement to regulate fire extinguisher sales companies. Such supervision requirement will serve to help better ensure the proper selection and placement of portable fire extinguishers. Pursuant to FC102.2.2, persons performing such services must obtain the certificate of fitness by July 1, 2009.

Section 6. Title 3 of the Rules of the City of New York is hereby amended by adding a new

Chapter 27, to read as follows:

**CHAPTER 27**  
**HAZARDOUS MATERIALS – GENERAL PROVISIONS**

- §2701-2705 Reserved
- §2706-01 Non-Production Laboratories
- §2707-01 Transportation of Explosives by Motor Vehicles
- §2707-02 Transportation by Motor Vehicle of Hazardous Materials in Continuous Transit Through New York City or For Transshipment From New York City

**§ 2706-01 Non-Production Laboratories**

- (a) Scope. This section sets forth the standards and requirements for the storage, handling and use of hazardous materials in non-production laboratories.
- (b) General Provisions. Non-production laboratories shall be designed, installed, operated and maintained in compliance with the requirements of FC2706 and this section.

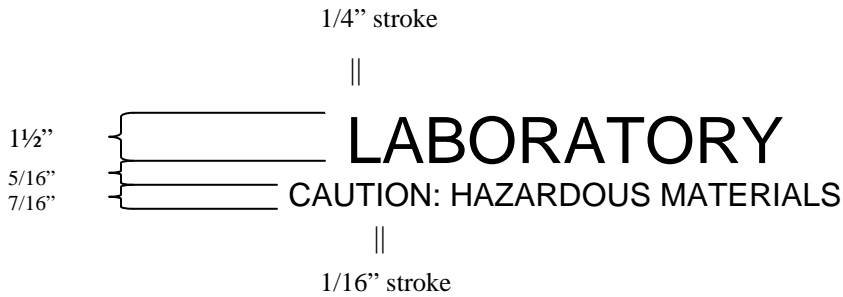
(c) Design and Installation Requirements

- (1) Electrical requirements. Electrical devices, equipment and systems installed in storage rooms in *non-production laboratories* shall comply with the *Electrical Code* requirements for Class I, Group D, Division 2 locations.

(d) Operational Requirements

- (1) Signage. The entrance to each *laboratory unit* door shall have a conspicuously posted sign, constructed of metal or other durable material, with RED letters on a white background which shall be located in the area of the mid-point of the height of the door. Such sign shall read as follows:





**§ 2707-01 Transportation of Explosives by Motor Vehicles**

(a) Scope. This section sets forth standards and requirements for the transportation, including delivery, by motor vehicle, of any blasting materials or Division 1.1 or 1.5 explosives for storage, handling or use in the city.

(b) General Provisions

(1) General. Except as otherwise provided in this section, the transportation of explosives by motor vehicle shall be conducted in compliance with the requirements in FC2707.

(2) Prohibitions

(A) It shall be unlawful to park or otherwise store motor vehicles containing explosives indoors, or on any other premises, except outdoors a job site at which approved blasting operations are being conducted.

(B) It shall be unlawful to transport or allow to be transported in a motor vehicle containing explosives, any matches, mechanical device or equipment capable of generating a spark or flame, or hazardous material other than explosives being transported.

(c) Vehicle Construction. Pursuant to FC2707.6.1, motor vehicles shall be designed and constructed in compliance with the following requirements and any permit conditions:

(1) The body shall be securely anchored to the chassis.

(2) The body shall be totally enclosed and separated from the driver's cab by a minimum distance of four (4) inches.

(3) The body shall be constructed of wood and the exterior completely wrapped with one-eighth inch (1/8") noncombustible insulation covered by at least 22 gauge sheet metal. Adequate wrought steel straps may be used in the construction for

strengthening purposes. No exposed metal of the sparking type shall be permitted in the interior of the body.

- (A) The sides and ends shall be laminated construction having a total thickness of not less than two and one-quarter inches (2¼"). The outer panels shall be of three-eighths inch (3/8") plywood glued and screwed to one and one-quarter inch (1¼") posts. The void between the posts shall be filled with one and one-quarter inch (1¼") hardwood placed vertically and securely fastened to the posts. The interior of the body shall be finished with five-eighths inch (5/8") tongue and groove hardwood, placed horizontally and blind fastened.
- (B) The floor shall consist of not less than five-eighths inch (5/8") tongue and groove hardwood placed horizontally and blind fastened to a subfloor of three-quarters inch (¾") hardwood boards laid at right angles to the finished floor, the subfloor shall be securely bolted to a one and three-eighths inch (1-3/8") hardwood sill bolted to a structural shape bolster or cross bar.
- (C) The roof shall consist of not less than three-eighths inch (3/8") plywood glued and screwed to one and one-quarter inch (1¼") ribs.
- (4) The only entrance into the body shall be through the rear doors. Entry shall be by double doors constructed in compliance with the specifications for the sides and ends of the body. The door opening shall be of such dimension that when the doors are in open position they shall not extend beyond the extreme width of the rear fenders. The doors shall be hung on continuous or piano hinges. An Eberhard No. 5628 three (3) point door lock with handle equipped for a padlock or its equivalent shall be used to secure the door in its closed position. Except when *explosives* are being loaded or unloaded into or from the body, the door shall be kept locked with a two (2) inch padlock having not less than a five-eighths inch (5/8") hardened shackle.
- (5) If wheel pockets are used, they shall be formed by a three-quarter inch (¾") hardwood box over adequate hardwood framing.
- (6) Bulletproofing protection shall be provided. Each *motor vehicle* shall be protected against shots fired from a high powered rifle by a minimum protection of one and one-half inch (1½") 7039-T-63 aluminum thirty five-hundredths inch (35/100") ceramic armor with one-quarter inch (¼") *approved* fiberglass backing, eight (8) inches of sand or *approved* equivalent. Such protection may be provided by lining the entire cargo space with such materials, or by placing a cabinet constructed of such materials within the cargo space. If a cabinet is used, then the top of the cabinet shall be arranged as a blow-out panel, and all *explosives* carried shall be within the cabinet.

(d) Vehicle Capacity

- (1) Quantity limits. The maximum quantity to be transported, delivered or carried in a motor vehicle at any one time shall not exceed 1,000 pounds of explosives or 5,000 electric fuses or blasting caps.

(e) Vehicle Markings

- (1) The motor vehicle shall be provided with prominently displayed placards, in compliance with United States Department of Transportation regulations, identifying the type explosives being transported.

- (2) The name of the motor vehicle owner and operator shall be marked on the motor vehicle in accordance with United States Department of Transportation regulations.

- (3) The Department sticker identifying the motor vehicle as having been issued a permit shall be affixed inside the front windshield of the motor vehicle.

- (4) A sign in English shall be painted above the loading on the front partition inside the explosives compartment reading, "Unlawful to transport more than 1,000 pounds of explosives."

- (f) Portable Fire Extinguisher Requirements. Motor vehicles transporting explosives having a gross vehicle weight of less than 14,000 pounds shall be provided with at least two (2) portable fire extinguishers having a minimum combined rating of 4-A:20-B:C. Motor vehicles transporting explosives having a gross vehicle weight of 14,000 pounds or greater shall be provided with at least two (2) portable fire extinguishers with a minimum combined rating of 4-A:70-B:C.

**§ 2707-02 Transportation by Motor Vehicle of Hazardous Material in Continuous Transit Through New York City or For Transshipment From New York City**

- (a) Scope. This section sets forth requirements for the transportation of flammable liquids, combustible liquids, compressed gases, and explosives, including fireworks in interstate and intrastate commerce, through the city without pickup or delivery, and with respect to deliveries of such materials to wharfs or piers, airports and shipping terminals for transshipment out of the city, except the following types of hazardous materials, which are not subject to this section:

- (1) Paints, varnishes, lacquers, enamel, shellac, stains, dryer, paint thinners and solvents, lacquer thinners and solvents, varnish thinners and solvents, enamel thinners and solvents, shellac thinners and solvents, stain thinners and solvents; lacquers, varnish, enamel, shellac, stains, dryers, printing inks and printing ink

solvents, screening printing inks and screening printing ink solvents, lithographic inks and lithographic ink solvents or other finished products not labeled as in the foregoing, but prominently labeled, “A Paint Product.”

(2) Small arms ammunition.

(b) General Provisions

(1) Transportation of prohibited hazardous materials. *Hazardous material* prohibited by federal, state or city law, rule or regulation shall not be permitted to enter or pass through New York City, except for the individual shipments specifically authorized by the governmental agencies and authorities having jurisdiction and upon a determination by such agencies that there is no practical alternative route to passage through the city for transshipment. Any shipments so authorized, shall conform to routes, times, and safety conditions specified by the *Department*.

(2) Transportation by approved motor vehicles. *Motor vehicles* for which a *permit* has been issued may be used to transport allowable *hazardous materials* in accordance with the Fire Code and the *rules* without conforming to the routing, time, escort and other requirements of this section.

(3) Fueling of motor vehicles prohibited. *Motor vehicles* transporting *hazardous materials* through the city shall not be fueled in the city, nor shall any stop be made within the city, except as required by traffic.

(4) Parking and standby prohibited. No *motor vehicle* transporting *hazardous materials* through the city (including “empty” vehicles not purged of ignitable vapors) shall stand or park in the city, even though attended, on any public highway, street or road or private property, except that empty vehicles, properly placarded in accordance with the regulations of the United States Department of Transportation, may enter the city for servicing and maintenance. In cases of *motor vehicle* emergency, every effort shall be made not to stand or park adjacent to or in proximity to any bridge, tunnel, dwelling, building, or place where persons work, congregate or assemble.

(5) Avoidance of congested areas and streets. *Motor vehicles* transporting *hazardous materials* shall avoid congested areas so far as is practicable and use highway exits as close as possible to final destination.

(6) Transfer of hazardous materials. *Hazardous materials* shall not be transferred from one (1) container or *motor vehicle* to another on any public highway, street or road except in a case of emergency.

(7) Notification of breakdown or collision. In the event of a breakdown or collision, the *Department* and Police Department shall be promptly notified.

- (8) Routes and times, authorization when needed, special conditions and information for the transportation of *hazardous materials* through the City of New York by *motor vehicle*, may be obtained by writing to the Hazardous Cargo Vehicle Inspection Unit, *Bureau of Fire Prevention*, New York City Fire Department, 245 Meserole Avenue, Brooklyn, NY 11222, or by calling the *Department's* Hazardous Cargo Vehicle Inspection Unit at (718) 752-0296 or 0341 during regular business hours. Such information may be obtained on weekends and holidays, or in an emergency, by calling the Operations Center at (718) 999-7900.
- (c) Time of transit. *Hazardous material* shipments shall transit the city only during non-rush hours as follows:
- (1) Monday through Friday:
- (A) Prohibited materials for which specific permission has been given by the *Department*:
- 10:00 am. to 3:00 pm.  
7:00 pm. to 6:00 am.
- (B) For explosives, 10:00 am. to 3:00 pm.
- (C) All other *hazardous materials*:
- 9:00 am. to 4:00 pm.  
6:00 pm. to 7:00 am.
- (2) Saturday, Sunday and Holidays: As traffic conditions permit, consistent with the laws, rules and regulations of the governmental agencies and/or authorities having jurisdiction.
- (d) Routing. All *motor vehicles* subject to the routing requirements of this section shall comply with the following routes:
- (1) From New Jersey to Western Westchester County and Upstate New York: George Washington Bridge (upper level) to Washington Expressway (without detour on city streets) via the Alexander Hamilton Bridge to the Major Deegan Expressway to New York Thruway (I-87).
- (2) From Western Westchester County and Upstate New York to New Jersey: Reverse of route set forth in R2707-02(d)(1).
- (3) From New Jersey to Eastern Westchester County, Upstate New York and New England: George Washington Bridge (upper level) to Washington Expressway (without detour onto City streets) via the Alexander Hamilton Bridge, directly to

Cross Bronx Expressway (I-95) to Bruckner Expressway, continue on Bruckner Expressway to New England Thruway (I-95).

(4) From Eastern Westchester County, Upstate New York and New England to New Jersey: Reverse of route set forth in R2707-02(d)(3).

(5) From New Jersey to Long Island:

(A) From George Washington Bridge: George Washington Bridge (upper level) via Washington Expressway (without detour onto City streets), via the Alexander Hamilton Bridge directly to Cross Bronx Expressway (I-95), east on Cross Bronx Expressway (I-95) to Throgs Neck Bridge, south across Throgs Neck Bridge to Clearview Expressway (I-295) to Long Island Expressway, east on Long Island Expressway (I-495) to Long Island.

(B) From Outerbridge Crossing: Outerbridge Crossing to West Shore Expressway, North on West Shore Expressway (State 440) to Staten Island Expressway (I-278). Then, East on Staten Island Expressway (I-278) to Verrazano Bridge, cross upper level of Verrazano Bridge to Brooklyn Queens Expressway (I-278), then east on Brooklyn Queens Expressway (I-278) to Long Island Expressway (I-495), then east on Long Island Expressway (I-495) to Long Island.

(C) From Bayonne Bridge: Bayonne Bridge to Willowbrook Expressway (State 440), then south on Willowbrook Expressway (State 440) to Staten Island Expressway (I-278). Then, East on Staten Island Expressway (I-278) to Verrazano Bridge, cross upper level of Verrazano Bridge to Brooklyn Queens Expressway (I-278), then east on Brooklyn Queens Expressway (I-278) to Long Island Expressway (I-495), then east on Long Island Expressway (I-495) to Long Island.

(D) From Goethals Bridge: Goethals Bridge to Staten Island Expressway (I-278). Then, East on Staten Island Expressway (I-278) to Verrazano Bridge, cross upper level of Verrazano Bridge to Brooklyn Queens Expressway (I-278), then east on Brooklyn Queens Expressway (I-278) to Long Island Expressway (I-495), then east on Long Island Expressway (I-495) to Long Island.

(6) From Long Island to New Jersey:

(A) Reverse of route set forth in R2707-02(d)(5)(A), (B), (C) or (D).

(B) Hazardous material shipment requiring escort (including *explosives* and *fireworks*) shall use route via George Washington Bridge only to minimize travel time within City.

- (7) From New England or Upstate New York, to Long Island (see alternative routes set forth in R2707-02(d)(47)):
- (A) New England Thruway (I-95) to Connors Street exit, to Bruckner Expressway (I-95) to Throgs Neck Expressway (I-295), to Throgs Neck Bridge, to Clearview Expressway (I-295), to Long Island Expressway (I-495), east on Long Island Expressway to City Line.
- (B) New York State Thruway (I-87) south to Major Deegan Expressway (I-87), to Cross Bronx Expressway (I-95), East to Bruckner Expressway, (I-278) to Throgs Neck Bridge, to Clearview Expressway (I-295), to Long Island Expressway, (I-495) east on Long Island Expressway to City Line.
- (8) From Long Island to Upstate New York, New England and Westchester County: Reverse of routes set forth in R2707-02(d)(7)(A) and (B).
- (9) From New Jersey to LaGuardia Airport via Goethals Bridge. Goethals Bridge to Staten Island Expressway (I-278) to Verrazano Narrows Bridge (upper level) to Brooklyn Queens Expressway (I-278) to Astoria Blvd. (exit 39), east to 82nd Street then north on 82nd Street to LaGuardia Airport.
- (10) From LaGuardia Airport to New Jersey via Goethals Bridge: Reverse of route set forth in R2707-02(d)(9).
- (11) From New Jersey to LaGuardia Airport via Outerbridge Crossing: Outerbridge Crossing to West Shore Expressway (State 440), to Staten Island Expressway (I-278) east to the Verrazano Narrows Bridge (upper level), to Brooklyn Queens Expressway (I-278), to Astoria Blvd. (exit 39), east to 82nd Street, north on 82nd Street to LaGuardia Airport.
- (12) From LaGuardia Airport to New Jersey via Outerbridge Crossing: Reverse of route set forth in R2707-02(d)(11).
- (13) From New Jersey to LaGuardia Airport via George Washington Bridge (see alternative routes set forth in R2707-02(d)(47)): George Washington Bridge (upper level) via Washington Expressway (without detouring onto City streets), via Alexander Hamilton Bridge, directly to Cross Bronx Expressway (I-95), east on Cross Bronx Expressway (I-95), to Throgs Neck Bridge, south across Throgs Neck Bridge to Clearview Expressway (I-295) to Long Island Expressway (I-495), west on Long Island Expressway (I-495) to Van Wyck Expressway (I-678), north on Van Wyck Expressway (I-678) to Northern Blvd. (25A), west on Northern Blvd. to Astoria Blvd, west on Astoria Blvd. to 82nd Street, north on 82nd Street to LaGuardia Airport.

- (14) From LaGuardia Airport to New Jersey via George Washington Bridge (see alternative routes set forth in R2707-02(d)(47)): Reverse of route set forth in R2707-02(d)(13).
- (15) From Long Island to LaGuardia Airport:
- (A) Long Island Expressway (I-495) West to Van Wyck Expressway (I-678), North to Northern Blvd. (25-A), West to Astoria Blvd. to 82nd Street, North on 82nd Street to LaGuardia Airport; or
- (B) Long Island Expressway (I-495) West to Brooklyn Queens Expressway (I-278) East to Astoria Blvd. (Exit 39) East to 82nd Street, North on 82nd to LaGuardia Airport; or
- (C) West on Sunrise Highway (State 27) to North Conduit Blvd. to Van Wyck Expressway (I-678), north on Van Wyck Expressway (I-678) to Northern Blvd. (25-A), west on Northern Blvd to Astoria Blvd., Astoria Blvd. to 82nd Street, north on 82nd Street to LaGuardia Airport; or
- (D) West on Sunrise Highway (State 27) to North Conduit Blvd. to Van Wyck Expressway (I-678), north on Van Wyck Expressway (I-678) to Long Island Expressway (I-495), west on Long Island Expressway to Brooklyn Queens Expressway (I-278), east on Brooklyn Queens Expressway to Astoria Blvd. (Exit 39), east on Astoria Blvd. to 82nd Street, north on 82nd Street to LaGuardia Airport.
- (16) From LaGuardia Airport to Long Island: Reverse of route set forth in R2707-02(d)(15)(A), (B), (C) or (D).
- (17) From New England and Upstate New York to LaGuardia Airport (see alternative routes set forth in R2707-02(d)(47)):
- (A) New England Thruway (I-95) south to Bruckner Expressway (I-95) to Throgs Neck Expressway (I-295), via Throgs Neck Bridge to Clearview Expressway (I-295) to Long Island Expressway (I-495), west to Brooklyn Queens Expressway (I-278) east, to Astoria Blvd. (exit 39), east to 82nd Street, then north on 82nd Street to LaGuardia Airport.
- (B) New York State Thruway (I-87) south to Major Deegan Expressway (I-87) to Cross Bronx Expressway (I-95) east to Bruckner Expressway (I-278) to Throgs Neck Bridge, to Clearview Expressway (I-295), to Long Island Expressway (I-495) west, to Brooklyn Queens Expressway (I-278) east, to Astoria Blvd. (Exit 39), east to 82nd Street, then north on 82nd Street to LaGuardia Airport.



- (18) From LaGuardia Airport to New England and Upstate New York: Reverse of routes set forth in R2707-02(d)(17)(A) and (B).
- (19) From New Jersey to JFK International Airport via Goethals Bridge. Goethals Bridge to Staten Island Expressway (I-278) to Verrazano-Narrows Bridge (upper level), Brooklyn Queens Expressway (I-278) east to Long Island Expressway (I-495), east to Van Wyck Expressway (I-678), south on Van Wyck Expressway (I-678) to JFK International Airport.
- (20) From JFK International Airport to New Jersey via Goethals Bridge: Reverse of route set forth in R2707-02(d)(19).
- (21) From New Jersey to JFK International Airport via Outerbridge Crossing: Outerbridge Crossing to West Shore Expressway (State 440) to Staten Island Expressway (I-278) to Verrazano-Narrows Bridge (upper level), to Brooklyn Queens Expressway east (I-278) to Long Island Expressway (I-495), east on Long Island Expressway (I-495) to Van Wyck Expressway (I-678), south on Van Wyck Expressway (I-678) to JFK International Airport.
- (22) From J.F.K International Airport to New Jersey via Outerbridge Crossing: Reverse of route set forth in R2707-02(d)(21).
- (23) From New Jersey to JFK. International Airport via George Washington Bridge (upper level) (see alternative routes set forth in R2707-02(d)(47)): George Washington Bridge (upper level), via Washington Expressway (without detouring onto City streets) via the Alexander Hamilton Bridge directly to Cross Bronx Expressway (I-95), east on Cross Bronx Expressway (I-95), to Throgs Neck Bridge, south across Throgs Neck Bridge to Clearview Expressway (I-295) to Long Island Expressway (I-495), west to Van Wyck Expressway (I-678), south on Van Wyck Expressway (I-678) to JFK International Airport.
- (24) From JFK International Airport to New Jersey via George Washington Bridge (see alternative routes set forth in R2707-02(d)(47)): Reverse of route set forth in R2707-02(d)(23).
- (25) From New England and Upstate New York to JFK International Airport (see alternative routes set forth in R2707-02(d)(47)):
- (A) New England Thruway (I-95), south to Bruckner Expressway (I-95), to Throgs Neck Expressway (I-295), via Throgs Neck Bridge to Clearview Expressway (I-295), to Long Island Expressway (I-495) west on Long Island Expressway (I-495) to Van Wyck Expressway (I-678), south on Van Wyck Expressway (I-678), to JFK International Airport.
- (B) New York State Thruway (I-87) south to Major Deegan Expressway (I-87) to Cross Bronx Expressway (I-95), east to Bruckner Expressway (I-278) to

Throgs Neck Bridge, to Clearview Expressway (I-295) to L.I. Expressway (I-495) west to Van Wyck Expressway (I-678), south on Van Wyck Expressway (I-678) to JFK Airport.

(26) From JFK International Airport to New England and Upstate New York (see alternative routes set forth in R2707-02(d)(47)): Reverse of routes set forth in R2707-02(d)(25)(A) and (B).

(27) From Long Island to JFK International Airport:

(A) West on Long Island Expressway (I-495) to Van Wyck Expressway (I-678), south on Van Wyck Expressway (I-678) to JFK International Airport.

(B) West on Sunrise Highway (State 27) to North Conduit Blvd. to Van Wyck Expressway (I-678), south on Van Wyck Expressway (I-678) to JFK International Airport.

(C) West on Sunrise Highway (State 27) to North Conduit Blvd. to Rockaway Blvd., or 150th Street, to JFK International Airport.

(28) From JFK International Airport to Long Island: Reverse of routes set forth in R2707-02(d)(27)(A), (B) and (C).

(29) From New Jersey to Staten Island wharfs and piers:

(A) Bayonne Bridge Plaza via Willowbrook Expressway (State 440) to Staten Island Expressway (I-278), west on Staten Island Expressway to Western Avenue, north on Western Avenue to Richmond Terrace, east on Richmond Terrace to Northside wharfs or piers, or Staten Island Expressway, east to Bay Street Exit, then local streets to East Side wharfs or piers.

(B) Goethals Bridge Plaza via Staten Island Expressway (I-278) to Forest Avenue, north on Forest Avenue to Goethals Road North, west on Goethals Road North to Western Avenue, north on Western Avenue to Richmond Terrace, then local streets for Northside wharfs or piers, or Staten Island Expressway east to Bay Street exit, then local streets to East Side wharfs or piers.

(C) Outerbridge Crossing via West Shore Expressway (State 440) and Staten Island Expressway (I-278), west on Staten Island Expressway to Western Avenue, north on Western Avenue to Richmond Terrace, then local streets for Northside wharfs or piers, or Staten Island Expressway east to Bay Street, then local streets to East Side wharfs or piers.

(30) From Staten Island wharfs or piers to New Jersey: Reverse of routes set forth in R2707-02(d)(29)(A), (B) and (C).

(31) From New Jersey to Brooklyn wharfs or piers:

(A) Bayonne Bridge, south via Willowbrook Expressway (State 440) to Staten Island Expressway (I-278), east to Verrazano-Narrows Bridge (upper level) to Brooklyn Queens Expressway (I-278), east on Brooklyn Queens Expressway (I-278), east on Brooklyn Queens Expressway (I-278) to nearest exit to location of wharf or pier then local streets to wharf or pier.

(B) Goethals Bridge to Staten Island Expressway (I-278) to Verrazano-Narrows Bridge (upper level), to Brooklyn Queens Expressway (I-278), east on Brooklyn Queens Expressway (I-278) to nearest exit to location of wharf or pier then local streets to wharf or pier.

(C) Outerbridge Crossing to West Shore Expressway (State 440) to Staten Island Expressway (I-278) to Verrazano-Narrows Bridge (upper level), to Brooklyn Queens Expressway (I-278), east on Brooklyn Queens Expressway (I-278) to nearest exit to location of wharf or pier, local streets to wharf or pier.

(32) From Brooklyn wharfs and piers to New Jersey: Reverse of routes set forth in R2707-02(d)(31)(A), (B) and (C).

(33) From New Jersey to Manhattan wharfs and piers:

(A) George Washington Bridge (upper level), exit at 178th Street and Fort Washington Avenue, east on 178th Street to Amsterdam Avenue, south on Amsterdam Avenue to Cathedral Parkway (110th Street), east on 110th Street to Columbus Avenue, south on Columbus Avenue to west 57th Street, west on 57th Street to 11th Avenue, south on 11th Avenue to 55th Street, west on 55th Street to 12th Avenue, 12th Avenue north or south to wharf or pier location, or

(B) Lincoln or Holland Tunnel (for hazardous materials permitted by Port Authority of New York and New Jersey and Fire Department rules only) to 12th Avenue or West Street, then north or south to wharf or pier location, utilizing the following routes:

(C) Lincoln Tunnel to West Side wharfs and piers North of Lincoln Tunnel: From Lincoln Tunnel, exit at Dyer Avenue (40th Street) north on Dyer Avenue to 41st Street, west (left) on 41st Street, to 12th Avenue (right turn at 12th Avenue adjacent to elevated structure of West Side Highway, continue north on 12th Avenue to wharfs or piers.

(D) Lincoln Tunnel to West Side wharfs and piers South of Lincoln Tunnel: From Lincoln Tunnel exit at Dyer Avenue (40th Street) north on Dyer Avenue to 41st Street, west (left) on 41st Street to 12th Avenue, south (left) on 12th Avenue (under elevated structure of West Side Highway to southbound traffic lane of 12th Avenue) continue south on 12th Avenue and/or West Street to wharfs or piers.

(E) Holland Tunnel to West Side wharfs and piers North of Holland Tunnel: Exit from Holland Tunnel at Hudson Street, north (right turn) on Hudson Street to Canal Street, west (left turn) on Canal Street to West Street, north (right turn) on West Street, continue north on West Street and/or 12th Avenue, to wharfs or piers.

Note: West Street becomes 12th Avenue at about 12th Street.

(F) Holland Tunnel to West Side wharfs and piers South of Holland Tunnel: Exit from Holland Tunnel at Hudson Street, north (right turn) on Hudson Street to Canal Street, west (left turn) on Canal Street to West Street, north (right turn) on West Street to west Houston Street, make "U" turn from north bound traffic lane under elevated West Side Highway to south bound traffic lane of West Street, continue south on West Street to wharfs or piers.

(G) New Jersey, via George Washington Bridge, Lincoln or Holland Tunnels to Lower East Side (East River) wharfs or piers: Continue route set forth in R2707-02(d)(33)(A), (d)(33)(C) or (d)(34)(A), (d)(33)(D) or (d)(34)(B), (d)(33)(E) or (d)(34)(C), or (d)(33)(F) or (d)(34)(D) south on 12th Avenue or West Street, south on West Street to Battery Park Underpass (clearance 12' 11"), enter Battery Park Underpass and exit on South Street, continue north on South Street and/or marginal street under elevated F.D.R. Drive to location of wharf or pier.

(34) From Manhattan wharfs and piers to New Jersey:

(A) West Side wharfs and piers North of Lincoln Tunnel to Lincoln Tunnel: South on 12th Avenue (at 43rd Street, move to left traffic lane to exit at 42nd Street), east (left turn) at 42nd Street on block to 11th Avenue, turn south (right) at 11th Avenue, continue south on 11th Avenue for two blocks (follow signs to Lincoln Tunnel), east (left) on 40th Street to Lincoln Tunnel entrance at Galvin Avenue.

Note: In area of 12th Street, 12th Avenue becomes West Street.

(B) West Side wharfs and piers South of Lincoln Tunnel to Lincoln Tunnel: North on West Street to 12th Avenue, north on 12th Avenue to 40th

Street, east on 40th Street across 11th Avenue to Galvin Avenue entrance to Lincoln Tunnel.

(C) West Side wharfs and piers North of Holland Tunnel to Holland Tunnel: South on 12th Avenue and continue south on West Street to Canal Street, east (left turn) on Canal Street to Hudson Street, then north (left turn) at Hudson Street to Holland Tunnel entrance.

(D) West Side wharfs and piers South of Holland Tunnel to Holland Tunnel: North on West Street to Canal Street, east (right turn) on Canal Street to Hudson Street, then north (left turn) on Hudson Street to Holland Tunnel entrance.

(E) Lower East Side (East River) wharfs or piers to New Jersey, via George Washington Bridge, Lincoln or Holland Tunnels: Proceed south on marginal street under elevated F.D.R. Drive and/or South Street to Battery Park Underpass, enter Battery Park Underpass and exit on West Street, proceed north on West Street and/or 12th Avenue, continue as per route set forth in R2707-02(d)(33)(C) or (d)(34)(A), (d)(33)(D) or (d)(34)(B), (d)(33)(E) or (d)(34)(C), or (d)(33)(F) or (d)(34)(D) to Lincoln and Holland Tunnels respectively, and, for George Washington Bridge, proceed north on 12th Avenue to 57th Street, east on 57th Street to Amsterdam Avenue, north on Amsterdam Avenue to 179th Street, west on 179th Street to George Washington Bridge.

(35) From New England, Westchester County and Upstate New York to Manhattan wharfs and piers:

(A) New England Thruway (I-95), south on New England Thruway (I-95), to Bruckner Expressway (I-278), to Willis Avenue and Third Avenue exit on 135th Street, west on 135th Street Third Avenue, south on Third Avenue across 3rd Avenue Bridge to 129th Street, east on 129th Street to Second Avenue, south on Second Avenue to East 125th Street, or

(B) New York Thruway (I-87), south to Major Deegan Expressway (I-87), Major Deegan Expressway (I-87) south to 138th Street exit, service road to Third Avenue, south on 3rd Avenue, across 3rd Avenue Bridge to east 129th Street, east on 129th Street to Second Avenue, south on Second Avenue to east 125th Street.

(C) Then, west on 125th Street to Amsterdam Avenue, south on Amsterdam Avenue to Cathedral Parkway (110th Street) east on 110th Street to Columbus Avenue, south on Columbus Avenue to west 57th Street, west on 57th Street to 11th Avenue, south on 11th Avenue to west 55th Street, west on west 55th Street to 12th Avenue north or south to wharf or pier location. For Lower East River wharfs and piers, continue south on 12th

Avenue to West Street, south on West Street around Battery Park (do not use Battery Under-Pass) to South Street, north on marginal streets under the elevated F.D.R. Drive to location of wharf or pier.

(36) From Manhattan wharfs and piers to Upstate New York, Westchester County and New England:

(A) Reverse of route set forth in R2707-02(d)(35)(C) to 12th Avenue, north to West 57th Street, then east on West 57th Street to Amsterdam Avenue, north on Amsterdam Avenue to 125th Street, east to 1st Avenue, north on 1st Avenue to Willis Avenue Bridge, across Willis Avenue Bridge to Bruckner Blvd., Bruckner Blvd. to 138th Street entrance to Bruckner Expressway (I-278), east and north on Bruckner Expressway (I-278) to New England Thruway (I-95), then New England Thruway (I-95) north to City line, or

(B) Reverse of route set forth in R2707-02(d)(35)(C) 12th Avenue, north to West 57th Street, then east on west 57th Street to Amsterdam Avenue, north on Amsterdam Avenue to 125th Street, east on 125th Street to 1st Avenue, north on 1st Avenue to Willis Avenue Bridge, across Willis Avenue Bridge, Willis Avenue to Major Deegan Expressway (I-87), Major Deegan Expressway north to New York Thruway (I-87), then north to City line.

(37) From New England, Upstate New York and Westchester County to Staten Island wharfs and piers:

(A) New England Thruway (I-95). South on New England Thruway (I-95) to Bruckner Expressway (I-95) to Throgs Neck Expressway (I-295) via Throgs Neck Bridge to Clearview Expressway (I-295) to Long Island Expressway (I-495), west on Long Island Expressway (I-495) to Brooklyn Queens Expressway (I-278), west to Verrazano-Narrows Bridge (upper level) to Staten Island Expressway (I-278) to Bay Street exit for Eastside wharfs or piers, or west to Western Avenue, north to Richmond Terrace, then local streets to Northside wharfs or piers.

(B) New York State Thruway (I-87) south to Major Deegan Expressway (I-87) to Cross Bronx Expressway (I-95), east on Cross Bronx Expressway (I-95) to Throgs Neck Bridge, to Clearview Expressway (I-295) to Long Island Expressway (I-495), west to Brooklyn Queens Expressway (I-278), west to Verrazano-Narrows Bridge (upper level), to Staten Island Expressway (I-278), exit at Bay Street for eastside wharfs or piers, or continue on Staten Island Expressway (I-278) to Western Avenue, north on western Avenue to Richmond Terrace, then local streets to Northside wharfs or piers.

- (38) Staten Island wharfs or piers to New England, Upstate New York and Westchester County: Reverse of routes set forth in R2707-02(d)(37)(A) and (B).
- (39) From New England, Westchester County and Upstate New York to Brooklyn wharfs or piers
- (A) New England Thruway (I-95). South on New England Thruway (I-95) to Bruckner Expressway (I-95) to Throgs Neck Expressway (I-295) via Throgs Neck Bridge to Clearview Expressway (I-295), to Long Island Expressway (I-495), west on Long Island Expressway (I-495) to Brooklyn Queens Expressway (I-278) west on Brooklyn Queens Expressway (I-278) to nearest exit to wharf or pier location. Route from nearest expressway exit to wharf or pier via local streets.
- (B) New York State Thruway (I-87) south to Major Deegan Expressway (I-87) to Cross Bronx Expressway (I-95), east on Cross Bronx Expressway (I-95) to Throgs Neck Bridge, south to Clearview Expressway (I-295), to Long Island Expressway, west on Long Island Expressway (I-495) to Brooklyn Queens Expressway, west on Brooklyn Queens Expressway (I-278) to nearest exit to wharf or pier location, then via local streets to wharf or pier.
- (40) Brooklyn wharf or pier to New England, Westchester County and Upstate New York: Reverse of routes set forth in R2707-02(d)(39)(A) and (B).
- (41) From Long Island to Brooklyn and Staten Island wharfs and piers:
- (A) Long Island Expressway (I-495) west to Brooklyn Queens Expressway (I-278), then west on Brooklyn Queens Expressway (I-278), then continue:
- (1) To nearest exit for Brooklyn wharfs or piers location.
- (2) West on Brooklyn Queens Expressway (I-278) to Verrazano Bridge (upper level), cross bridge to Staten Island Expressway (I-278), exit at Bay Street for Staten Island Eastside wharfs or piers (utilizing local streets), or continue west on Staten Island Expressway (I-278) to Western Avenue, north on Western Avenue to Richmond Terrace, then local streets for Northside Staten Island wharfs or piers.
- (42) Brooklyn or Staten Island wharfs and piers to Long Island: Reverse of routes set forth in R2707-02(d)(41)(A)(1) and (2).
- (43) From Long Island to Manhattan wharfs and piers:

(A) West on Long Island Expressway (I-495) to Clearview Expressway (I-295), north on Clearview Expressway (I-295) across Throgs Neck Bridge to Bruckner Expressway (I-278), west on Bruckner Expressway (I-278) continuing as per routes set forth in R2707-02(d)(35)(A) and (C) to Manhattan wharfs or piers.

(B) From Manhattan wharfs and piers to Long Island: Use route set forth in R2707-02(d)(36)(A) to Bruckner Expressway (I-278), east on Bruckner Expressway (I-278) to Throgs Neck Expressway (I-295) south on Throgs Neck Expressway (I-295), over Throgs Neck Bridge, south on Clearview Expressway (I-295) to Long Island Expressway (I-495), then east on Long Island Expressway (I-495) to Long Island.

(44) Routes to Howland Hook Truck Terminal, Staten Island:

(A) From New Jersey:

(1) Bayonne Bridge Plaza via Willowbrook Expressway (State 440) south to Staten Island Expressway (I-278), north on Western Avenue, east to Howland Hook Terminal.

(2) Outerbridge Crossing, north on West Shore Expressway (State 440) to Staten Island Expressway (I-278), west on Staten Island Expressway (I-278) to Western Avenue, north on Western Avenue, east to Howland Hook Terminal.

(3) Goethals Bridge to Staten Island Expressway (I-278) to Forest Avenue, north on Forest Avenue to Goethals Road North, west on Goethals Road North to Western Avenue, north on Western Avenue, then east to Howland Hook Terminal.

(B) From New England, Upstate New York and Westchester County: Use routes set forth in R2707-02(d)(37)(A) and (B), except that entrance to Howland Hook Terminal is east from Western Avenue.

(C) From Long Island: West on Long Island Expressway (I-495) to Brooklyn Queens Expressway (I-278), then west on Brooklyn Queens Expressway (I-278) to Verrazano Bridge, cross upper level of Verrazano Bridge, then west on Staten Island Expressway (I-278) to Western Avenue, north on Western Avenue, then east to Howland Hook Terminal.

(D) From J.F. Kennedy Airport: North on Van Wyck Expressway (I-678) to Long Island Expressway (I-495), then west on Long Island Expressway continuing as per route set forth in R2707-02(d)(44)(C).



(E) From LaGuardia Airport: South on 82nd Street to Astoria Blvd., west on Astoria Boulevard to Brooklyn Queens Expressway (I-278), then west on Brooklyn Queens Expressway (I-278), continuing as per route set forth in R2707-02(d)(44)(C).

(45) Routes From Howland Hook Terminal:

(A) To New Jersey: Reverse of route set forth in R2707-02(d)(44)(A).

(B) To New England, Upstate New York and Westchester County: Reverse of route set forth in R2707-02(d)(44)(B).

(C) To Long Island: Reverse of route set forth in R2707-02(d)(44)(C).

(D) To J.F. Kennedy Airport: Reverse of route set forth in R2707-02(d)(44)(D).

(E) To LaGuardia Airport: Reverse of route set forth in R2707-02(d)(44)(E).

(46) Truck and Railroad Terminal in Bushwick Area, Brooklyn, and Maspeth Area, Queens. Utilize routes set forth in R2707-02(d)(5) from New Jersey, in R2707-02(d)(7) from upstate New York, New England and Westchester County, C-3 Island Expressway (I-495), then Long Island Expressway (I-495) to Grand Avenue exit (westbound) or Maurice Ave. exit (eastbound), then to Grand Avenue (and Grand Street), east or west as required. Reverse routes for return trips.

(47) Alternate routes. For vehicles not carrying explosives, alternate routes utilizing the Whitestone Bridge or the Robert F. Kennedy Bridge may be used in lieu of the Throgs Neck Bridge specified in R2707-02(d)(7)(B), (d)(8), (d)(13), (d)(14), (d)(17)(B), (d)(18), (d)(23), (d)(24), (d)(25)(B), (d)(26), (d)(37)(B), (d)(38), (d)(39)(B) and (d)(40), as follows:

(A) Cross Bronx Expressway (I-95) to Hutchinson River Parkway, south on Hutchinson River Parkway over Whitestone Bridge, and continue south on Whitestone Expressway (I-678).

(1) to Astoria Blvd., west on Astoria Blvd. to 82nd Street, north on 82nd Street to LaGuardia Airport.

(2) to Van Wyck Expressway (I-678), south on Van Wyck Expressway (I-678) to J.F. Kennedy Airport.

(3) to Van Wyck Expressway (I-678), south to Long Island Expressway (I-495), west on Long Island Expressway (I-495) to Brooklyn Queens Expressway (I-278), west on Brooklyn Queens

Expressway (I-278) to Brooklyn or Staten Island wharfs or piers as per routes set forth in R2707-02(d)(37) or (39).

(B) South on Major Deegan Expressway (I-87) from Cross Bronx Expressway or Upstate New York, to Robert F. Kennedy Bridge, across Robert F. Kennedy Bridge to Queens, exit and proceed east on Astoria Blvd.

(1) to 82nd Street, north on 82nd Street to LaGuardia Airport.

(2) to Brooklyn Queens Expressway (I-278), west on Brooklyn Queens Expressway (I-278) to Long Island Expressway (I-495), east on Long Island Expressway (I-495) to Van Wyck Expressway (I-678), south on Van Wyck Expressway (I-678) to JFK Airport.

(3) to Brooklyn Queens Expressway (I-278), west on Brooklyn Queens Expressway (I-278) to Brooklyn or Staten Island wharfs or piers as per routes set forth in R2707-02(d)(37) or (39).

(C) For return, reverse of routes set forth in R2707-02(d)(47)(A)(1), (A)(2), (A)(3), (B)(1), (B)(2), and (B)(3).

(e) Escort Requirements

(1) Motor vehicles transporting hazardous materials requiring Department fire apparatus escorts pursuant to FC2707.12, including explosives and fireworks, shall comply with the requirements of FC2707.12 and this section, including R2707-02(d)(6)(B). The Department reserves the right to require escorts for any hazardous material shipment when deemed necessary.

(2) Notification of arrival of shipments requiring fire apparatus escorts shall be made 48 hours in advance by calling the Operations Center at (718) 999-7900 and providing the name and address of shipper, carrier, description and size of hazardous material load, including net weight and United States Department of Transportation classification, point of entry into New York City and point of departure, with proposed routing. Arrangements for the escort shall be made at the time of such notification. The carrier will be notified of whom and when to call for final meeting arrangements when the carrier is within two (2) hours approach of New York City or ready to leave an airport or wharf or pier.

(3) Explosives shipments shall take the most direct permissible route through the City so as to minimize time of exposure within the City. Prior Department approval shall be obtained for any transfer of explosives on a wharf or pier; explosives shall then be loaded directly from the vehicle transporting the explosives to the vessel at a wharf or pier on the sailing date of the vessel, in accordance with Coast Guard Regulations, and, with respect to arriving shipments, directly from the

vessel to the vehicle on the date of the vessel's berthing. No storage of *explosives* shall be permitted on wharfs, piers, warehouses, staging areas or other locations.

No wharf or pier shall be used for the transfer of *Division 1.1, 1.2 or 1.3 explosives*, except *small arms ammunition*, or *fireworks* classified as *Division 1.4 explosives*, unless such transfer has been approved by the *Department* and a *permit* has been issued. Primacord, Cordeau Detonant Fuse or other high velocity fuses may not be trans-shipped via a wharf or pier in the City of New York.

(4) Escort rendezvous points at entries to New York City. Where *Department* escort is required, rendezvous with the *Department* escort shall be made at the appropriate entry point to the city as follows:

(A) From Long Island:

(1) From North Shore Long Island: Meet at the safety area of Westbound Long Island Expressway (I-495) on the right side between Lakeville Road and Little Neck Parkway.

(2) From South Shore Long Island: Meet at northwest corner of intersection of Sunrise Highway (State 27) between Hook Creek Blvd. and 246th Street.

(B) From New England or Upstate New York:

(1) New England Thruway (I-95) Southbound; exit at Connors Street exit, proceed on New England Thruway Service Road to Connors Street to meet *Department* escort.

(2) New York Thruway (I-87) Southbound; exit into Service Area of Major Deegan Expressway located between Westchester County line and the East 233rd street exit of the expressway, to meet *Department* escort.

(C) From New Jersey via:

(1) Goethals Bridge: Meet at Administration Building in the Toll Plaza.

(2) Bayonne Bridge: Meet at Administration Building in the Toll Plaza.

(3) Outerbridge Crossing: Meet at Administration Building in the Toll Plaza.

(4) George Washington Bridge: Meet at Administration Building in the Toll Plaza.

(D) From Airports:

(1) At JFK International Airport: Meet in front of the Major Robert Fitzgerald Building #111 on the inbound service road of the Federal Circle.

(2) At LaGuardia Airport - Meet at Marine Air Terminal Port Authority of New York and New Jersey Police Building, entering at 82nd Street entrance to LaGuardia Airport.

(f) Seizure of Contraband Materials and Vehicles Transporting Contraband Materials

(1) In addition to any other penalties provided by law, rule or regulation, pursuant to FC104.5.1 and R104-03, hazardous material transported in violation of the Fire Code and this section, and the vehicle in which it is being transported, are liable to seizure and disposal by the Department or other law enforcement agency having jurisdiction.

(2) Seizure of contraband is in addition to other penalties, criminal liability, and violations, including those prescribed by FC 109.2.1 and 109.2.3 and the New York State Penal Code.

STATEMENT OF BASIS AND PURPOSE FOR CHAPTER 27 (HAZARDOUS MATERIALS – GENERAL PROVISIONS):

The chapter consists of three sections, all of which were based on existing rules.

Section 2706-01 sets forth standards and requirements for non-production chemical laboratories. These standards and requirements were set forth in existing rule 3 RCNY §10-01.

Section 2707-01 sets forth requirements for the transportation of explosives by motor vehicles. These requirements were set forth in existing rule 3 RCNY §40-01.

Section 2707-02 sets forth requirements for the transportation of flammable and combustible liquids, compressed gases, and explosives, in interstate and intrastate commerce passing through New York city, without pickup or delivery in the city. These requirements were set forth in existing rule 3 RCNY §40-07.

Section 7. Title 3 of the Rules of the City of New York is hereby amended by adding a new Chapter 28, to read as follows:

**CHAPTER 28**  
**AEROSOLS**

§2801-01     Aerosols  
§2802-2806   Reserved

**§ 2801-01 Aerosols**

- (a)   Scope. This section sets forth the requirements for the storage, *handling* and use of *aerosols*.
- (b)   General Provisions. *Aerosols* shall be stored, *handled* and used in compliance with the requirements of FC Chapter 28 and this section.
- (c)   Supervision. The *handling* and use of *aerosols* in quantities requiring a *permit* shall be performed under the *personal supervision* of a person holding a *certificate of fitness*. The storage of *aerosols* in quantities requiring a *permit* shall be under the *general supervision* of a person holding a *certificate of fitness*.

STATEMENT OF BASIS AND PURPOSE FOR CHAPTER 28 (AEROSOLS):

This chapter consists of one new section (R2801-01) that sets forth supervision requirements for the storage, handling and use of aerosols. These supervision requirements are consistent with the requirements set forth in the Fire Code and rules for other hazardous materials. Pursuant to FC102.2.2, persons supervising such aerosol storage, handling and use must obtain the certificate of fitness by July 1, 2009.

Section 8. Title 3 of the Rules of the City of New York is hereby amended by adding a new Chapter 34, to read as follows:

**CHAPTER 34**  
**FLAMMABLE AND COMBUSTIBLE LIQUIDS**

§3401-3403   Reserved  
§3404-01    Out-of-Service Storage Systems  
§3404-02    Precision Testing of Certain Underground Storage Systems  
§3404-03    Indoor and Aboveground Combustible Liquid Storage Systems  
§3405-01    Storage and Use of Fuel Oil on Mobile Trailers for Heating and Power  
                  Generation  
§3406-01    Storage of Flammable and Combustible Liquids on Roofs at Construction  
                  Sites

## § 3404-01 Out-of-Service Storage Systems

- (a) Scope. This section sets forth requirements for out-of-service storage systems for gasoline, diesel, fuel oil and other *flammable* or *combustible liquids* that are not in use for 30 days or more, except when such systems are used for seasonal or standby storage and are not otherwise permanently out of service.
- (b) Definitions. The following terms shall, for purposes of this section and as used elsewhere in the *rules*, have the meanings shown herein:

**Permanently out-of-service storage systems.** Storage systems that are no longer to be used for storing gasoline, diesel, fuel oil or other *flammable* or *combustible liquids* or that have not been used for one (1) year or more. The *Department* may deem a storage system permanently out of service and require that it be closed accordingly where it has not been closed and maintained as a *temporarily out-of-service storage system* and the circumstances of an actual or anticipated change in use or occupancy of the *premises* at which the storage system is located indicate that any further use of such storage system cannot be reasonably anticipated.

**Temporarily out-of-service storage systems.** Storage systems for gasoline, diesel, fuel oil or other *flammable* or *combustible liquids* that have not been used for 30 days or more, but less than one (1) year.

### (c) Temporarily Out-of-Service Storage Systems

#### (1) Supervision

- (A) For motor fuel or other *flammable* or *combustible liquid* storage systems, the closure shall be performed by a person holding a *certificate of license* or by a person who is employed and supervised by a person holding such certificate.
- (B) For fuel oil storage systems with a total capacity exceeding 330 gallons, the closure shall be performed by a person holding a *certificate of license* or by a person who is employed and supervised by a person holding such certificate, or a person holding an oil-burning equipment installer license issued by the *Department of Buildings* or by a person who is employed by and under the direct supervision of a person holding such license.
- (C) For fuel oil storage systems with a total capacity of 330 gallons or less, the closure shall be performed by a person holding a *certificate of license* or by a person who is employed and supervised by a person holding such certificate, by a person holding an oil-burning equipment installer license issued by the *Department of Buildings* or by a person who is employed by

and under the direct supervision of a person holding such license, or a plumber licensed by the *Department of Buildings*.

(2) Affidavit of compliance. The *owner* or operator of a *temporarily out-of-service storage system* or the *permit* holder for such system shall file with the *Department* an affidavit certifying that such system has been safeguarded in compliance with the requirements of FC Chapter 34 and this section. Such affidavit shall be executed by a person with the requisite qualifications to supervise the closure of such tanks.

(3) Permits and testing

(A) All storage systems which have been rendered temporarily out of service shall continue to be subject to the *Department's permit* and testing requirements and the registration, reporting, inspection and testing regulations of the New York State Department of Environmental Conservation.

(B) Before a *temporarily out-of-service storage system* may be restored to service, an affidavit of compliance shall be filed with the *Department* in accordance with R3404-01(c)(2), certifying the integrity of the tank and piping, and the proper functioning of any leak detection and cathodic protection systems.

(d) Permanently Out-of-Service Storage Systems

(1) Supervision

(A) For motor fuel or other *flammable* or *combustible liquid* storage systems, the closure shall be performed by a person holding a *certificate of license* or by a person who is employed and supervised by a person holding such certificate.

(B) For fuel oil storage systems with a total capacity exceeding 330 gallons, the closure shall be performed by a person holding a *certificate of license* or by a person who is employed and supervised by a person holding such certificate, or a person holding an *oil-burning equipment installer license* issued by the *Department of Buildings* or by a person who is employed by and under the direct supervision of a person holding such license.

(C) For fuel oil storage systems with a total capacity of 330 gallons or less, the closure shall be performed by a person holding a *certificate of license* or by a person who is employed and supervised by a person holding such certificate, by a person holding an *oil-burning equipment installer license* issued by the *Department of Buildings* or by a person who is employed by

and under the direct supervision of a person holding such license, or a plumber licensed by the *Department of Buildings*.

- (2) Affidavit of compliance. The *owner* or operator of a *permanently out-of-service storage system* or the *permit* holder for such system shall file with the *Department* an affidavit certifying that such system was removed and disposed of, or abandoned in place, in compliance with the requirements of FC Chapter 34 and this section. Such affidavit shall be executed by a person with the requisite qualifications to supervise the closure of such tanks.
- (3) Environmental site assessment. If an environmental site assessment is required by federal or state law or regulations, the *owner* or operator of the storage system, the *permit* holder for such system, or the person filing the affidavit of compliance for such system, shall submit to the *Department* a written statement that such environmental site assessment has been performed in accordance with such law and regulations.

#### **§ 3404-02 Precision Testing of Certain Underground Storage Systems**

- (a) Scope. This section sets forth standards, requirements and procedures for precision testing pursuant to FC3404.2.11.6 of underground storage systems for *motor fuels* or other *flammable* and *combustible liquids* when such systems utilize single-walled tanks, or other tanks not provided with a leak detection system meeting Fire Code requirements.
- (b) General Provisions
  - (1) Applicability. Precision testing of underground storage systems for *motor fuels* or other *flammable* and *combustible liquids* that utilize single-walled tanks, or other tanks not provided with a leak detection system meeting Fire Code requirements, shall be conducted in compliance with the requirements of FC Chapters 22 and 34 and this section.
  - (2) Precision testing standard. Precision testing of underground storage systems shall be conducted in accordance with National Fire Protection Association (NFPA) Standard 329 (2005 edition).
  - (3) Supervision.
    - (A) Certificate requirements. Precision testing of underground storage systems shall be conducted by a person holding a *certificate of license* or under the general supervision of a *certificate of license* holder. Such person shall be trained and knowledgeable in the use of the precision test equipment and procedures for the conduct of the particular precision test. Any person conducting such test under the supervision of a *certificate of*



license holder shall hold a *certificate of fitness* for such precision test. A separate *certificate of fitness* shall be obtained for each type of precision test system.

(B) Presence on premises. The certificate holder conducting the precision test shall remain on the *premises* while such test is being conducted and until the system has been returned to good working order in accordance with R3402-02(c)(1)(C).

(c) Operational Requirements

(1) Administrative requirements

(A) Notification of tests. Prior to conducting a precision test of a underground storage system, notification shall be made to the *Bureau of Fire Prevention* by calling the telephone number designated by the Bulk Fuel Unit. Tests may be witnessed by a *Department* representative. Tanks located within buildings shall not be tested unless prior *Department* approval is received.

(B) Submission of test results. A report of the results of the precision test shall be submitted to the Bulk Fuel Unit of the *Bureau of Fire Prevention* on an *approved* form no later than 30 days after conducting the test. Such test report shall include the name and *certificate of fitness* number of the person who conducted the test, as well as the name and signature of the *certificate of license* holder under whose supervision the test was conducted.

(C) Notification of defective storage systems. Underground storage systems shall be returned to service in good working order upon completion of the precision testing. Storage systems determined to be defective shall be removed from service in accordance with applicable laws, rules and regulations. If *hazardous material* has been released to the environment, notification shall be immediately made to the *Department* and the New York State Department of Environmental Conservation.

(2) Testing equipment requirements

(A) Only approved precision testing systems shall be used for precision testing of underground storage systems. Such testing systems, including hoses and other devices and components, shall be designed for twice the maximum operating pressures of the pressures generated by the precision test system, and shall be compatible with the *hazardous material* stored in the tank to be precision tested.

(B) All testing equipment to be placed in the storage tank, or used in the vicinity of the test area, shall be intrinsically safe or suitable for use in hazardous locations.

(C) Interlocks shall be provided for all electrical connections to ensure that the system is grounded before power can be supplied.

(3) Testing procedures

(A) The test area shall be cordoned off by portable barricades, signs, rope or tape to prevent unauthorized persons and motor vehicles from entering the area. Signs posted at the barricade perimeter shall be provided to read "NO SMOKING-NO OPEN FLAMES".

(B) All sources of ignition, including all *motor vehicles*, shall be removed from the testing area.

(C) *Approved* procedures shall be used in filling tanks and piping for precision testing, to ensure safety and prevent overfilling. Filling of tanks shall only be conducted through *approved* fill boxes from *approved cargo tanks* and/or *approved safety cans*. For purposes of topping off the tank or the test equipment, *flammable* and *combustible liquids* shall be drawn from an *approved* storage system on the *premises* into an *approved* safety can not exceeding a capacity of two and one half (2½) gallons. *Flammable* and *combustible liquids* may not be withdrawn from the fuel tanks of *motor vehicles*.

(D) To avoid erroneous results, each precision test shall compensate for temperature changes, tank-end deflection, air pockets, water tables and other variables, as set forth in NFPA 329, to avoid erroneous results.

(E) Tests shall be conducted for the period of time recommended by the manufacturer of the particular precision testing system, or until accurate results can be obtained.

(F) If test wells must be drilled on the site to locate the water table, the *certificate of license* holder shall take all necessary steps to ensure that such test wells do not disturb utility infrastructure.

(G) When underground storage systems storing liquid of varying or unknown coefficients of thermal expansion are to be tested, the liquid shall be removed, the tank cleaned, and the test conducted using a material of similar viscosity and a known coefficient of expansion.

(H) Power to electrical equipment shall not be turned on until all electrical connections have been made. The connection to the power source shall be the final connection made.

(I) Precision testing systems shall be arranged such that rain water cannot enter the tank through the tank openings.

(d) Portable Fire Extinguisher Requirements

(1) A portable fire extinguisher having at least a 40-B:C rating shall be readily accessible during testing. The maximum travel distance to the fire extinguisher shall be 30 feet and the portable fire extinguisher shall be positioned at a safe location within the testing area.

**§ 3404-03 Indoor and Aboveground Combustible Liquid Storage Systems**

(a) Scope. This section sets forth requirements for the design and installation of indoor, aboveground *combustible liquid* storage systems, except fuel oil storage tanks and auxiliary storage tanks for oil-burning equipment regulated by the *Mechanical Code*, or to the installation of liquid motor fuel-dispensing storage tanks.

(b) General Provisions. Indoor aboveground *combustible liquid* storage tanks shall comply with the requirements of FC Chapters 27 and 34 and this section.

(c) Design and Installation Requirements

(1) Location of tanks. *Combustible liquid* storage tanks shall preferably be installed on the floor at grade level. *Combustible liquid* storage tanks may also be installed on floors not more than two (2) floors below grade level.

(2) Fire-rated separation of tanks

(A) *Combustible liquid* storage tanks having an individual or aggregate capacity of more than 550 gallons but less than 1,100 gallons in a single *control area* shall be completely enclosed within noncombustible construction having at least a two (2) hour fire resistance rating.

(B) *Combustible liquid* storage tanks having an individual or aggregate capacity of 1,100 gallons or more in a single *control area* shall be completely enclosed within noncombustible construction having at least a three (3) hour fire resistance rating.

(3) Sprinkler system protection

(A) Any floor below grade level upon which a combustible liquid storage tank is installed shall be protected throughout by a sprinkler system, except that that when the combustible liquid storage tank will only store a combustible liquid with a flash point of 200°F or greater, and the room or area is segregated, vertically and horizontally, from surrounding spaces by a fire separation of not less than two (2) hour fire resistance rating, only the room or area housing such tank need be protected by a sprinkler system.

(4) Piping systems

(A) General requirements

(1) Exposed piping shall be protected against mechanical damage and shall be adequately supported with rigid metal fasteners or hangers.

(2) Only new wrought iron, steel, or brass pipe, or type K or heavier copper tubing shall be used. Metal tubing used as transfer piping shall be adequately protected.

(3) Overflow pipes, where installed, shall not be smaller in size than the supply pipe.

(4) Pipe shall be connected with standard components, and tubing with components listed or approved for the same material as the pipe, except that malleable iron fittings may be used with steel pipe. Cast iron fittings shall not be used. All threaded joints and connections shall be made liquid-tight with suitable pipe compound. Unions requiring gaskets or packing, right or left couplings and sweat fittings employing solder having a melting point of less than 1,000°F shall not be used.

(B) Piping from storage tank to equipment on other floors

(1) Piping from a transfer pump to manufacturing, process or other equipment installed on other floors, including combustible liquid return and vent piping, shall comply with the applicable provisions of R3404-03(c)(4) and shall be enclosed in a shaft constructed of four (4) inch concrete or masonry, having a four (4) inch clearance from all pipe or pipe covering, except that no such enclosure shall be required within the room containing the pump, tank, or equipment where such room is itself enclosed with construction and materials having at least a 2-hour fire-resistance rating. Provisions shall be made for expansion in piping without the use of expansion joints.

- (2) Where it is necessary to make horizontal offsets in supply piping, upon exiting the shaft, such piping shall be enclosed in a sleeve of other piping of at least number ten (10) gauge steel, two (2) sizes larger and arranged to drain into the shaft. Horizontal piping offsets shall be further enclosed in construction having a two (2) hour fire resistance rating, except that no such enclosure shall be required within the room containing the pump, tank, or equipment where such room is itself enclosed with construction and materials having at least a 2-hour fire-resistance rating.
- (3) A drain pipe shall be installed at the base of the shaft enclosing the supply and overflow piping. The pipe shall lead to a dedicated sump or container with a capacity of at least 55 gallons. Such sump or container shall be equipped with a leak detection system alarm, arranged so as to sound an alarm and stop the transfer pump. The alarm shall be connected to a local audible alarm and to a remote alarm located at a supervising station. The wiring shall comply with the *Electrical Code*.
- (4) Piping shall be seamless steel pipe of a weight not less than ASA Schedule 40, with welded connections up to the equipment, except that fittings at the tank or equipment, shutoff valves and other *combustible liquid* flow and control devices may be screwed or flanged.
- (5) Pipe shafts shall not be penetrated by or contain other piping or ducts.

(5) Transfer of combustible liquids between floors

- (A) A clearly identified and readily accessible remote control switch shall be provided on each floor to which *combustible liquid* is transferred. Such switch, when manually activated, shall cause shut down of the transfer.
- (B) A visual indicating device shall be provided in the discharge area that indicates when the pump is running.

**§ 3405-01 Storage and Use of Fuel Oil on Mobile Trailers for Heating and Power Generation**

- (a) Scope. This section sets forth standards, requirements and procedures for mobile trailers that store and use fuel oil for heating and generation of electrical power.
- (b) General Provisions

- (1) Applicability. Mobile trailers that store and use fuel oil for heating, including steam and hot water, and generation of electrical power, shall be designed, installed and operated in compliance with the requirements of the *construction codes* and this section.
  - (2) Permit. Each mobile heating or power generating trailer shall obtain a *permit* for the citywide transportation, storage and use of *combustible liquid*. Mobile heating and power generating trailers utilized at one (1) site for more than 30 days shall obtain a site-specific *permit* for the storage and use of *combustible liquid* at that location.
  - (3) Supervision. While in operation, mobile emergency heating and power generating trailers shall be under the *personal supervision* of a *certificate of fitness* holder or a person holding a high pressure boiler operating engineer's license issued by the *Department of Buildings*.
  - (4) Delivery of fuel oil. Only *cargo tanks* for which a *permit* has been issued may be used to deliver fuel oil to mobile heating and power generating trailers.
- (c) Design and Installation Requirements. Mobile heating and power generating trailers using fuel oil shall be designed and installed in compliance with the following requirements:
- (1) Fuel oil piping systems and boilers shall be designed and installed in compliance with the requirements of the *Mechanical Code*. The power generating equipment, and all electrical devices, equipment and systems on the trailer shall be designed and installed in compliance with the requirements of the *Building Code* and the *Electrical Code*. Documentation of compliance with such codes shall be submitted to the *Department* in an *approved* form.
  - (2) Fuel oil storage tanks shall be constructed in accordance with the requirements of the *Mechanical Code*. No more than 550 gallons of fuel oil shall be stored on the trailer.
  - (3) A clearly identified and readily accessible remote control shut-down switch for the oil burning equipment shall be provided inside the trailer, immediately accessible upon entry.
  - (4) The chassis shall be designed and constructed to support the total load supported by the trailer, including all heating or power generating equipment. The *Department* may require a letter from the chassis manufacturer confirming such design capacity.
  - (5) Fuel oil storage tanks shall be provided with secondary containment of *liquid-tight construction*. Such containment shall be constructed of metal, and shall have a capacity of not less than the maximum capacity of the fuel oil storage tanks.

- (6) Signs shall be posted on both sides of the trailer that read: “Mobile Heating Trailer” or “Mobile Power Generator”, as applicable, in six (6) inch letters, and bear the name and address of the owner in two (2) inch letters.
- (7) The trailer and equipment shall be electrically grounded in an *approved* manner.
- (8) Each fuel oil storage tank fill line shall be provided with both a shut-off valve and a check valve.
- (9) *Department of Buildings* permits or other approvals shall be posted at a conspicuous location inside the trailer.

### **§ 3406-01 Storage of Flammable and Combustible Liquids on Roofs at Construction Sites**

- (a) Scope. This section sets forth requirements for storage and use of *flammable* and *combustible liquids* on roofs at *construction sites*.
- (b) Storage Requirements. Where *flammable* or *combustible liquids* in use at a *construction site* are not removed from the job site at the end of the workday they shall be stored in a *metal flammable liquid* storage cabinet when not in use. *Flammable* or *combustible liquids* may be stored on a roof in connection with work on a roof in a quantity not to exceed one (1) day's supply, but in no case more than 20 gallons.

### STATEMENT OF BASIS AND PURPOSE FOR CHAPTER 34 (FLAMMABLE AND COMBUSTIBLE LIQUIDS):

The chapter consists of five sections, all of which were based on existing rules.

Section 3404-01 sets forth requirements for out-of service flammable and combustible liquid storage systems. These requirements were set forth in existing rule 3 RCNY §21-02.

Section 3404-02 sets forth standards, requirements and procedures for precision tests of underground motor fuel, flammable liquid, and combustible liquid storage systems. These requirements were set forth in existing rule 3 RCNY §21-03.

Section 3404-03 sets forth design and installation requirements for indoor combustible liquid storage tank systems. These requirements were set forth in existing rule 3 RCNY §21-17.

Section 3405-01 sets forth requirements for the utilization of mobile trailers storing and using fuel oil for heating and power generating purposes. This section expands the scope of existing rule (3 RCNY §21-18), which is limited to mobile trailers storing and using fuel oil for heating purposes.

Section 3406-01 sets forth requirements for the storage and use of flammable and combustible liquids on the roofs of building at construction sites. These requirements are set forth in existing rule 3 RCNY §20-01.

Section 9. Title 3 of the Rules of the City of New York is hereby amended by amending Chapter 36, to read as follows:

**CHAPTER 36  
FLAMMABLE SOLIDS**

[§3601-3605 Reserved]  
§3601-01 Flammable Solids  
§3602-3605 Reserved

**§ 3601-01 Flammable Solids**

- (a) Scope. This section sets forth the requirements for the storage, *handling* and use of *flammable solids*.
- (b) General Provisions. *Flammable solids* shall be stored, *handled* and used in compliance with the requirements of FC Chapter 36 and this section.
- (c) Supervision. The *handling* and use of *flammable solids* in quantities requiring a *permit* shall be performed under the *personal supervision* of a person holding a *certificate of fitness*. The storage of *flammable solids* in quantities requiring a *permit* shall be under the *general supervision* of a person holding a *certificate of fitness*.

STATEMENT OF BASIS AND PURPOSE FOR CHAPTER 36 (FLAMMABLE SOLIDS):

This chapter consists of one new section (R3601-01) that sets forth supervision requirements for the storage, handling and use of flammable solids. These supervision requirements are consistent with the requirements set forth in the Fire Code and rules for other hazardous materials. Pursuant to FC102.2.2, persons supervising such flammable solids storage, handling and use must obtain the certificate of fitness by July 1, 2009.

Section 10. Title 3 of the Rules of the City of New York is hereby amended by adding one new section to Chapter 46, to read as follows:



**CHAPTER 46  
FEES**

[§4601-4603 Reserved]

§4601-01 New and Amended Fees

§4602-4603 Reserved

§4604-01 Compensation To Be Paid By Entities Engaged in the Operation of Auxiliary Fire Alarm Systems (effective until July 1, 2009)

§4604-01 Compensation for Operation of Auxiliary Fire Alarm Systems (effective July 1, 2009)

**§ 4601-01 New and Amended Fees**

(a) Scope. This section sets forth provisions relating to the Department's adoption of new and amended fees and incorporation of such fees into FC Appendix A.

(b) General Provisions

(1) Adoption. The owner or applicant shall pay the fees set forth in this section for permits, inspections, witnessing of tests and other services, in accordance with the provisions of FC Appendix A.

(2) Incorporation. Pursuant to FC102.6.2, such new and amended fees shall be deemed incorporated into FC Appendix A.

(3) Identification of amendments

(A) The incorporation of new fees into FC Appendix A is indicated by **underlining**.

(B) The incorporation of amended fees into FC Appendix A is indicated by **bracketing the provision and/or fee to be deleted from FC Appendix A and underlining** the amended provision and/or fee to be added.

(c) Certificate Fees (FC A01). Reserved

(d) Training School Accreditation Fees (FC A02). Reserved

(e) Permits and Inspection Fees (FC A03). FC A03 is amended to read as follows:

**SECTION FC A03  
**PERMITS **[AND]**, INSPECTIONS **AND PLAN REVIEW******

**A03.1 Permits **[and]**, inspection **and plan review**.** \* \* \*

<b><u>1A. Asphalt Melters</u></b>	
<u>Store, handle or use an asphalt melter</u>	<u>\$105.00</u>
	* * *
<b><u>14A. Construction Sites</u></b>	
<u>Fire safety inspection (annual fee)</u>	<u>\$315.00</u>
	* * *
<b><u>45. Plan examinations</u></b>	
<u>Review of design and installation documents</u>	<u>\$210.00</u>
<u>Review of fire safety and evacuation plan</u>	<u>\$210.00</u>
<u>Review of emergency action plan</u>	
<u>Original application</u>	<u>\$525.00</u>
<u>Amended application (per hour)(total not to exceed \$525.00)</u>	<u>\$210.00</u>
<u>Review of professional certification applications</u>	<u>\$210.00</u>

(f) Administrative Services (FC A04). Reserved

(g) Late Renewals (FC A05). Reserved

*Note: Retain underlining of **highlighted** text in publication of final rule. Retain brackets and bracketed material of **highlighted** text, without underline, in publication of final rule.*

STATEMENT OF BASIS AND PURPOSE FOR CHAPTER 46 (FEES):

One new section has been added to this chapter. Section R4601-01 sets forth provisions relating to the Department’s adoption of new and amended fees, and the incorporation of those fees into FC Appendix A. The section also establishes two new fees: one in connection with fire safety inspection of construction sites pursuant to R1401-01, and one for review of professional certification of fire alarm system installations in connection with proposed rule, R104-02, entitled “Professional Certification of Fire Alarm System Installations.” Public comments received in response to proposed rule R104-02 are still under review. The Fire Department intends to separately promulgate R104-02 as a final rule at a later date.

Section 11. Chapter 48 of Title 3 of the Rules of the City of New York is hereby amended by amending Section 4802-01, amending the titles of eight sections in Chapter 48 and adding six new sections, to read as follows:

**CHAPTER 48**  
**PRE-EXISTING FACILITIES**

§4801	Reserved
§4802-01	Pre-Existing Definitions
§4803-01	[Pre-Existing ] <u>General Precautions Against Fire in Pre-Existing Facilities</u>
§4804-4808	Reserved
§4809-01	[Pre-Existing ] <u>Fire Protection Systems in Pre-Existing Facilities</u>
§4810-01	[Pre-Existing ] <u>Means of Egress in Pre-Existing Facilities</u>
§4811-4821	Reserved
§4822-01	Pre-Existing Motor Fuel-Dispensing Facilities and Repair Garages
[§4823-4829	Reserved]
<u>§4823-4826</u>	Reserved
<u>§4827-01</u>	<u>Storage of Hazardous Materials in Pre-Existing Facilities</u>
<u>§4828-01</u>	<u>Storage of Aerosols in Pre-Existing Facilities</u>
<u>§4829-01</u>	<u>Storage of Combustible Fibers in Pre-Existing Facilities</u>
§4830-01	[Pre-Existing ] <u>Storage of Compressed Gases in Pre-Existing Facilities</u>
§4831-01	[Reserved ] <u>Storage of Corrosive Materials in Pre-Existing Facilities</u>
§4832-01	[Pre-Existing ] <u>Storage of Cryogenic Fluids in Pre-Existing Facilities</u>
[§4833-4834	Reserved]
<u>§4833-01</u>	<u>Storage of Explosives in Pre-Existing Facilities</u>
<u>§4834-01</u>	<u>Storage of Flammable and Combustible Liquids in Pre-Existing Facilities</u>
§4835-01	[Pre-Existing ] <u>Storage of Flammable Gases in Pre-Existing Facilities</u>
§4836-4837	Reserved
§4838-01	[Pre-Existing ] <u>Storage of Liquefied Petroleum Gases in Pre-Existing Facilities</u>
<u>§4839-01</u>	<u>Storage of Organic Peroxides in Pre-Existing Facilities</u>
§[4839]4840-4844	Reserved

**§ 4802-01 Pre-Existing Definitions**

\* \* \*

(b) Definitions

**Board of Standards and Appeals.** New York City Board of Standards and Appeals.

**Department of Buildings.** New York City Department of Buildings.

**Department of Small Business Services.** New York City Department of Small Business Services.

**Multiple dwelling.** A multiple dwelling, as defined in subdivision seven of section four of the multiple dwelling law, including any portion of such dwelling used for other than

living or sleeping purposes, or for any business, commercial or other non-residential purpose. (Fire Prevention Code, former Administrative Code §27-4002(27a))

**Structure.** Any building or construction of any kind. (Fire Prevention Code, former Administrative Code §27-4002(38)(c))

### **§ 4827-01 Storage of Hazardous Materials in Pre-Existing Facilities**

(a) Scope. This section consolidates the New York City Fire Prevention Code and former Fire Department rules in effect on June 30, 2008, that are applicable to the design and installation of hazardous material installations in pre-existing facilities.

(b) Definitions. The following terms shall, for purposes of this section and as used elsewhere in Chapter 48 of the rules, have the meanings shown herein:

**Retail drug store.** A store or building used for the compounding and dispensing, usually in the form of physicians' prescriptions, or for the selling of small quantities of medicinal preparations, proprietary articles, drugs, chemicals, oils, volatile solvents and other substances which, alone or in combination with any other article or substance, are of a highly combustible, flammable or explosive nature. (Fire Prevention Code, former Administrative Code §27-4002(35))

**Technical establishment.** A building or place where explosive, flammable or highly combustible substances are produced, used or stored for use, or where chemicals or other materials entering into the production of such substances are stored or used, excepting those establishments which are specifically treated under other classifications in subchapters one through twenty-seven of this chapter. (Fire Prevention Code, former Administrative Code §27-4002(39))

**Tenement house.** A class A multiple dwelling as defined in subdivision four of section four of the multiple dwelling law. (Fire Prevention Code, former Administrative Code §27-4002(40))

(c) General Provisions. Pre-existing facilities with hazardous material installations the design and installation of which would not be allowed or approved under the Fire Code, but which, pursuant to FC102.3 and R102-01, may be continued with respect to such hazardous material installations under the applicable laws, rules and regulations in effect prior to the Fire Code, and shall continue to comply with the provisions of such laws, rules and regulations, including former Administrative Code §§27-4234, 27-4236, 27-4237, 27-4238, 27-4240, 27-4241, 27-4242 and 27-4246, and former Fire Department rules 3 RCNY §§10-01, 15-05 and 34-01, as applicable, until such time as such facilities may be required to comply with the Fire Code and the rules with respect to their design and installation.

(d) Technical Establishments

(1) Former Administrative Code §27-4234

**§27-4234 Restrictions**

It shall be unlawful to store for use, or to use in any technical establishment any liquid acetylene, acetylide of copper or other metallic acetylide; fulminate of mercury, or any other fulminate or fulminating compound; nitroglycerine; chloride of nitrogen; amide or amine; blasting powder; smokeless powder; or gunpowder in any form; or any volatile product of petroleum (except rhigoline) having a boiling point lower than sixty degrees Fahrenheit.

(e) Wholesale Drug Stores and Drug and Chemical Supply Houses

(1) Former Administrative Code §27-4237

**§27-4237 Restrictions**

No permit shall be issued for a wholesale drug store or drug and chemical supply house in any building:

1. Which is situated within fifty feet of the nearest wall of any building which is occupied as a school, hospital, theatre, or other place of public amusement or assembly;
2. Which is not equipped with a fire extinguishing system approved by the commissioner;
3. Where the building does not comply with the requirement of the building code regulating high hazard occupancies for buildings erected after the sixth day of December, nineteen hundred sixty-eight; or where a building or building section erected prior thereto is not fully equipped with an approved automatic sprinkler system.

(2) Former Administrative Code §27-4238

**§27-4238 Laboratory**

- a. Construction. The operation of compounding medicinal preparations, proprietary articles and similar materials, or analyzing or testing drugs, chemicals, medicinal preparations, proprietary articles and similar materials, when explosive or flammable substances are required, shall be conducted only in a

room or part of the premises designed and constructed in accordance with all applicable provisions of the building code.

\* \* \*

(3) Former Administrative Code §27-4240

**§27-4240 Prohibited materials**

It shall be unlawful to manufacture or store in a wholesale drug store or drug and chemical supply house any of the following substances:

1. Acetylide of copper;
2. Amide or amine explosive;
3. Chloride of nitrogen;
4. Colored fire in any form;
5. Cymogene or any volatile product of petroleum (except rhigoline) or coal tar having a boiling point lower than sixty degrees Fahrenheit;
6. Flashlight powders;
7. Fulminate or any fulminating compound;
8. Guncotton;
9. Gunpowder in any form;
10. Liquid acetylene;
11. Nitro-glycerine, except in official U. S. pharmacopoeia solution, or in the form of pills, tablets, or granules containing not more than one-fiftieth of a grain each;
12. Picrates;
13. Potassium chlorate in admixture with organic substances or with phosphorus or sulphur; provided that this restriction shall not apply to the manufacture or storage of tablets of chlorate of potash intended for use solely for medicinal purposes;
14. Rubber shoddy.

(4) Former Administrative Code §27-4241

**§27-4241 Quantities of supplies allowed**

No permit shall be issued for the storage in a wholesale drug store or drug and chemical supply house of any of the following substances in quantities greater than those set forth in the following schedule:

1. Explosives.

<u>Amyl nitrate in bottles</u>	<u>25 pounds</u>
<u>Amyl nitrate in pearls</u>	<u>100 gross</u>
<u>Carbon bisulphide</u>	<u>50 pounds</u>
<u>Collodions</u>	<u>100 pounds in all</u>
<u>Gases, liquefied:</u>	
<u>Anhydrous ammonia</u>	<u>2 cylinders</u>
<u>Carbon dioxide</u>	<u>2 cylinders</u>
<u>Nitrous oxide</u>	<u>2 cylinders</u>
<u>Oxygen</u>	<u>2 cylinders</u>
<u>Sulphur dioxide</u>	<u>2 cylinders</u>
<u>Nitroglycerine, one percent solution in alcohol</u>	<u>20 pounds</u>
<u>Picric acid</u>	<u>25 pounds</u>
<u>Soluble cotton</u>	<u>25 pounds in all</u>

2. Volatile flammable liquids (insoluble).

<u>Benzine, benzole or naphthas of any kind</u>	<u>150 gallons in all</u>
<u>Coal tar</u>	<u>1 barrel</u>
<u>Coal tar oils (heavy)</u>	<u>10 barrels</u>
<u>Crude petroleum</u>	<u>1 barrel</u>
<u>Ethyl chloride and other ethers</u>	<u>200 pounds in all</u>
<u>Ether, nitrous</u>	<u>100 pounds in five pound packages or less</u>
<u>Ether, sulphuric</u>	<u>500 pounds</u>
<u>Rhigoline</u>	<u>2 dozen one pound tins</u>
<u>Varnishes, lacquers, etc.</u>	<u>275 gallons in all</u>
<u>Wood creosote</u>	<u>5 barrels</u>

3. Volatile flammable liquids (soluble).

<u>Acetone</u>	<u>1 barrel</u>
<u>Alcohol, denatured</u>	<u>10 barrels</u>
<u>Alcohol, ethyl</u>	<u>10 barrels</u>
<u>Alcohol, methyl</u>	<u>10 barrels</u>
<u>Aldehyde, ethyl</u>	<u>5 gallons</u>

4. Non-volatile flammable liquids (insoluble).

<u>Amyl acetate</u>	<u>10 barrels</u>
<u>Amyl alcohol</u>	<u>10 barrels</u>
<u>Aniline oil</u>	<u>5 drums</u>
<u>Cumol</u>	<u>5 barrels</u>
<u>Essential oils</u>	<u>10,000 pounds in all</u>
<u>Kerosene</u>	<u>1 barrel</u>
<u>Nitrobenzole</u>	<u>5 drums</u>
<u>Terebene</u>	<u>100 pounds</u>
<u>Toluol</u>	<u>350 pounds</u>
<u>Turpentine</u>	<u>10 barrels</u>
<u>Xylol</u>	<u>100 pounds</u>

5. Non-volatile flammable liquids (soluble).

<u>Glycerine</u>	<u>5,000 pounds</u>
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6. Combustible solids.

<u>Metallic magnesium</u>	<u>100 pounds</u>
<u>Phosphorus</u>	<u>11 pounds</u>
<u>Phosphorus, red</u>	<u>11 pounds</u>
<u>Sulphur</u>	<u>25 barrels in all</u>

7. Gums, resins, pitch, etc.

<u>Burgundy pitch</u>	<u>5,000 pounds</u>
<u>Camphor</u>	<u>8,000 pounds</u>
<u>Gum thus</u>	<u>5 barrels</u>
<u>Naphthaline</u>	<u>50 barrels in all</u>
<u>Pitch (coal tar pitch)</u>	<u>2 barrels</u>
<u>Resins, balsams and other varnish gums</u>	<u>8,000 pounds in all</u>
<u>Rosin</u>	<u>5 barrels</u>
<u>Shellac</u>	<u>2,500 pounds</u>
<u>Stockholm tar</u>	<u>1,000 pounds</u>
<u>Tar, refined (wood)</u>	<u>10 barrels</u>
<u>Venice turpentine</u>	<u>2,000 pounds</u>

8. Combustible fibres and powders (vegetable).

<u>Cotton, absorbent</u>	<u>2,000 pounds</u>
<u>Cotton batting</u>	<u>10 bales</u>
<u>Excelsior</u>	<u>25 bales</u>
<u>Flax</u>	<u>20 bales</u>
<u>Jute</u>	<u>25 bales</u>
<u>Lampblack</u>	<u>10 barrels</u>
<u>Lycopodium</u>	<u>2,000 pounds</u>
<u>Oakum</u>	<u>2 bales</u>
<u>Pulverized charcoal</u>	<u>10 barrels</u>
<u>Sawdust</u>	<u>15 bags</u>



<u>Straw, packing</u>	<u>10 bales</u>
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9. Dangerously corrosive acids.

<u>Anhydrous acetic</u>	<u>500 pounds</u>
<u>Carbolic</u>	<u>15,000 pounds</u>
<u>Glacial acetic</u>	<u>2,000 pounds</u>
<u>Hydrochloric</u>	<u>15 carboys</u>
<u>Hydrofluoric</u>	<u>500 pounds</u>
<u>Sulphuric</u>	<u>15 carboys</u>

10. Acids.

<u>Chromic</u>	<u>100 pounds</u>
<u>Iodic</u>	<u>5 pounds</u>
<u>Nitric</u>	<u>3 carboys</u>
<u>Nitric, fuming</u>	<u>25 pounds</u>
<u>Periodic</u>	<u>2 pounds</u>

11. Peroxides.

<u>Barium</u>	<u>2 casks</u>
<u>Calcium</u>	<u>100 pounds</u>
<u>Hydrogen, U.S.P.</u>	<u>5,000 pounds</u>
<u>Other hydrogen peroxides, over three percent, not to exceed fifteen percent</u>	<u>500 pounds</u>
<u>Potassium</u>	<u>10 pounds</u>
<u>Sodium</u>	<u>25 pounds</u>

12. Chlorates.

<u>Barium</u>	<u>500 pounds</u>
<u>Other metallic</u>	<u>100 pounds in all</u>
<u>Potassium</u>	<u>1,000 pounds</u>
<u>Sodium</u>	<u>1,000 pounds</u>

13. Perchlorates.

<u>Potassium</u>	<u>10 pounds</u>
<u>Other metallic perchlorates</u>	<u>10 pounds in all</u>

14. Permanganates.

<u>Potassium</u>	<u>1,000 pounds</u>
<u>Sodium</u>	<u>100 pounds</u>
<u>Other metallic permanganates</u>	<u>100 pounds in all</u>

15. Nitrates.

<u>Barium</u>	<u>1,200 pounds</u>
<u>Bismuth subnitrate</u>	<u>2,500 pounds</u>
<u>Cobalt</u>	<u>1,000 pounds</u>
<u>Copper</u>	<u>100 pounds</u>

<u>Iron, ferric</u>	<u>200 pounds</u>
<u>Mercury (mercuric)</u>	<u>100 pounds</u>
<u>Mercury (mercurous)</u>	<u>10 pounds</u>
<u>Potassium</u>	<u>2,000 pounds</u>
<u>Silver</u>	<u>50 pounds</u>
<u>Sodium</u>	<u>1,000 pounds</u>
<u>Strontium</u>	<u>1,200 pounds</u>
<u>Other metallic</u>	<u>500 pounds in all</u>

16. Metallic oxides.

<u>Lead binoxide</u>	<u>25 pounds</u>
<u>Lead (litharge)</u>	<u>1,200 pounds</u>
<u>Lead (red)</u>	<u>500 pounds</u>
<u>Mercury; yellow precipitate (mercurous)</u>	<u>200 pounds</u>
<u>Mercury; red precipitate (mercuric)</u>	<u>100 pounds</u>
<u>Silver</u>	<u>10 pounds</u>

17. Substances made dangerous by contact with other substances.

<u>Calcium carbide</u>	<u>60 pounds</u>
<u>Metallic potassium</u>	<u>5 pounds</u>
<u>Metallic sodium</u>	<u>5 pounds</u>
<u>All other metals of the alkalies or alkalone earths</u>	<u>5 pounds in all</u>
<u>Phosphides</u>	<u>10 pounds</u>
<u>Unslaked lime</u>	<u>2 barrels</u>
<u>Zinc dust</u>	<u>100 pounds</u>

The commissioner may, in his or her discretion and when no unusual hazard is presented thereby, authorize the storage of greater quantities than those set forth in the foregoing schedule, or the storage of other substances not specified therein.

(5) Former Administrative Code §27-4242

**§27-4242 Storage**

\* \* \*

b. Liquids. The storage of acids or liquid chemicals which may cause explosions or combustion by flowing into, upon or among chemicals or other substances, shall be provided with safety catch basins or a similar device, so that, in case of the leakage of such acids or liquids, no danger to life or property will result. Carboys containing nitric acid shall be stored only in premises designed and constructed in accordance with all applicable provisions of the building code; and it shall be unlawful to permit

sawdust, hay, excelsior, or any organic substance, or other acids or chemicals in close proximity to such carboys or stocks of nitric acid. A sufficient quantity of sand or infusorial earth shall be provided for absorbing all waste liquids from floors.

\* \* \*

(6) Former Fire Department Rule 3 RCNY §15-05

**§15-05 Fire Protection in Wholesale Drug and Chemical Supply Houses**

The following shall be deemed to be in compliance with § 27-4237(3) of the Administrative Code of the City of New York:

\* \* \*

(d) Where such storage does not exceed 75 percent of the quantities allowed in § 27-4241, Administrative Code.

For each 2,500 square feet of floor area or major portion thereof:

\* \* \*

Thermostatic alarm

(e) Where the storage exceeds 75 percent of the allowable quantity, an automatic sprinkler system is required.

(f) When the building exceeds four stories, an automatic sprinkler system is required.

(g) In any building where explosives and flammable substances are used or handled, if the area exceeds 5,000 square feet per floor an automatic sprinkler system is required.

(h) In any building exceeding 10,000 square feet per floor, an automatic sprinkler system is required.

(f) Retail Drug Stores

(1) Former Administrative Code §27-4246

**§27-4246 Quantities of supplies allowed**

It shall be unlawful to store, sell or use in a retail drug store any of the following substances in quantities greater than those set forth in the following schedule:

1. Acids.

<u>Carbolic</u>	<u>100 pounds</u>
<u>Hydrochloric</u>	<u>200 pounds</u>
<u>Nitric</u>	<u>15 pounds</u>
<u>Picric</u>	<u>1 ounce</u>
<u>Sulphuric</u>	<u>200 pounds</u>

2. Volatile flammable liquids.

<u>Acetone</u>	<u>5 pounds</u>
<u>Amyl acetate</u>	<u>1 gallon</u>
<u>Amyl alcohol</u>	<u>1 gallon</u>
<u>Amyl nitrate</u>	<u>2 ounces in one ounce bottles six dozen pearls</u>
<u>Ethyl alcohol</u>	<u>1 barrel</u>
<u>Benzine, benzole and naphtha of any kind</u>	<u>5 gallons in four ounce bottles or pint tins</u>
<u>Carbon bisulphide</u>	<u>3 pounds</u>
<u>Collodion</u>	<u>5 pounds</u>
<u>Denatured alcohol</u>	<u>1 barrel</u>
<u>Ether, sulphuric</u>	<u>5 pounds</u>
<u>Methyl alcohol</u>	<u>1 barrel</u>
<u>Other ethers, in all</u>	<u>2 pounds</u>
<u>Turpentine</u>	<u>1 barrel</u>

3. Flammable liquids.

<u>Essential oils</u>	<u>100 pounds in all</u>
<u>Glycerine</u>	<u>500 pounds</u>
<u>Pine tar</u>	<u>10 pounds</u>

4. Combustible solids.

<u>Aluminum (powder)</u>	<u>1 pound</u>
<u>Balsams and resins</u>	<u>50 pounds in all</u>
<u>Camphor</u>	<u>350 pounds</u>
<u>Charcoal, powdered</u>	<u>10 pounds</u>
<u>Lampblack</u>	<u>10 pounds</u>
<u>Magnesium (powder)</u>	<u>8 ounces</u>
<u>Magnesium (ribbon)</u>	<u>8 ounces</u>
<u>Naphthalene</u>	<u>4 barrels</u>
<u>Phosphorus, red</u>	<u>2 ounces</u>
<u>Phosphorus, yellow</u>	<u>1 ounce</u>
<u>Rosin</u>	<u>10 pounds</u>
<u>Sulphur and brimstone</u>	<u>250 pounds in all</u>

5. Combustible fibres.

<u>Cotton, absorbent</u>	<u>150 pounds in cartons</u>
<u>Cotton, batts</u>	<u>10 pounds in closed boxes or other containers</u>
<u>Cotton, loose</u>	<u>5 pounds in closed boxes or other containers</u>
<u>Excelsior, hay and straw</u>	<u>2 bales (except in stores located in tenement houses)</u>
<u>Lint</u>	<u>10 pounds in closed boxes or other containers</u>
<u>Oakum</u>	<u>10 pounds in closed boxes or other containers</u>

6. Oxidizers.

<u>Barium peroxide</u>	<u>1 pound</u>
<u>Bismuth subnitrate</u>	<u>20 pounds</u>
<u>Calcium peroxide</u>	<u>5 pounds</u>
<u>Chromic acid</u>	<u>1 pound</u>
<u>Lead oxide (red)</u>	<u>5 pounds</u>
<u>Lime, unslaked</u>	<u>200 pounds in sealed metal cans</u>
<u>All other metallic bichromates or chromates</u>	<u>50 pounds in all</u>
<u>Mercuric oxide (red)</u>	<u>2 pounds</u>
<u>Mercurous oxide</u>	<u>2 pounds</u>
<u>Mercury nitrate</u>	<u>1 pound</u>
<u>Phosphides</u>	<u>10 ounces in all</u>
<u>Potassium bichromate</u>	<u>10 pounds</u>
<u>Potassium chlorate</u>	<u>25 pounds in five pound containers or less</u>
<u>Potassium nitrate</u>	<u>50 pounds</u>
<u>Potassium perchlorate</u>	<u>1 ounce</u>
<u>Potassium permanganate</u>	<u>5 pounds</u>
<u>Silver nitrate</u>	<u>1 pound</u>
<u>Silver oxide</u>	<u>1 ounce</u>
<u>Sodium bichromate</u>	<u>10 pounds</u>
<u>Sodium chlorate</u>	<u>5 pounds</u>
<u>Sodium nitrate</u>	<u>25 pounds</u>
<u>Sodium permanganate</u>	<u>1 pound</u>

The commissioner may, in his or her discretion, when no extra hazard is permitted thereby, authorize the storage of larger quantities of substances than those set forth in the foregoing schedule, or of other explosives or flammable substances not specifically named therein.

(g) Non-Production Chemical Laboratories

(1) Former Fire Department Rule 3 RCNY §10-01

**§10-01 Storage and Use of Chemicals, Acids and Gases in College, University, Hospital, Research and Commercial Laboratories**

(a) Definitions.

\* \* \*

**Laboratory.** Laboratory means a generic term denoting a building, space, equipment or operation, wherein testing, research or experimental work is conducted and shall include laboratories used for instructional purposes.

**Laboratory Building.** Laboratory building means a structure consisting wholly or principally of one or more laboratory units.

**Laboratory Unit.** Laboratory unit means an enclosed, fire rated space used for testing, research, experimental or educational purposes. Laboratory units may or may not include offices, laboratories, and other contiguous rooms maintained for, or used by, laboratory personnel, and corridors within the units. It may contain one or more separate laboratory work areas.

**Laboratory Work Area.** Laboratory work area means a room or space within a laboratory unit for testing, analysis, research, instruction, or similar activities which involve the use of chemicals or gases. A work area may or may not be enclosed.

**Exception:** This section shall not apply to physical, electronic, instrument or similar laboratories which use small quantities (less than 32 oz. flammable liquids, 0.5 lb. oxidizing materials, and 0.15 cu.ft. water container capacity of flammable gases) for incidental purposes such as cleaning, maintenance or repair and these substances are not used directly in experimental chemical research work.

\* \* \*

**Storage Cabinet.** Storage cabinet means a cabinet for the storage of not more than 60 gallons of flammable liquid which is designed and constructed in accordance with "OSHA General Industry Standards-Flammable and Combustible Liquids".

**Storage Room.** Storage room means a room where chemicals or gases regulated by this directive are stored and not otherwise used or reacted.

**Unstable (Reactive) Chemical.** Unstable (reactive) chemical means a substance, other than one classified as an explosive or blasting agent, which will vigorously and energetically react, is potentially explosive, will polymerize or decompose instantaneously, undergo uncontrollable auto-reaction or can be exploded by heat, shock, pressure or combinations thereof. Examples are: organic peroxides, nitromethane, and ammonium nitrate.

\* \* \*

(d) Storage.

- (1) Storage of chemicals for use in individual laboratory units shall be in accordance with Table I below. Any amounts in addition to the maxima set forth in Table I below shall be at the discretion of the Commissioner and shall be in storage cabinets.
- (2) Determination of the fire rating of laboratory unit enclosures shall be in accordance with the criteria of the Building Code, except that, in partitions not required to have a fire rating under the provisions of that Code, fire dampers shall not be required to be installed in existing ducts penetrating existing laboratory partitions.
- (3) Storage of volatile flammable oils shall be in accordance with Table I of this section.

Table I  
Maximum Laboratory Unit Storage Limits

<u>Lab Type</u>	<u>Fire Rating</u>	<u>Fire Protection</u>	<u>Flammable Liquids and</u>	<u>Flammable Solids</u>	<u>Oxidizing Materials</u>	<u>Unstable Reactive</u>
I	2 Hours	Sprinklers	30 gals	15 lbs	50 lbs	12 lbs
II	1 Hour	Sprinklers	25 gals	10 lbs	40 lbs	6 lbs
III	2 Hours	No Sprinklers	20 gals	6 lbs	30 lbs	3 lbs
IV	1 Hour	No Sprinklers	15 gals	3 lbs	20 lbs	2lbs

\* \* \*

(5) Storage and use of flammable gases within laboratory units shall be in accordance with Table II below, except that no storage of flammable gases shall be allowed in any laboratory unit where there is not an on-going operation requiring their use. On-going operations shall allow storage of flammable gases sufficient to meet the operating requirements of the equipment in that laboratory unit plus an equal reserve.

Table II  
Storage of Flammable Gases

<u>Area of Laboratory in square feet**</u>	<u>Up to 500 sq. ft.</u>	<u>per additional 100 sq. ft.</u>	<u>Maximum per Laboratory Unit</u>
<u>Maximum Capacity</u>	<u>9.24</u>	<u>1.54</u>	<u>15.4</u>

\*\* Water container capacity

\* \* \*

(9) Storage rooms shall be of a minimum 2 hour rated construction and shall be provided with:

- (i) a constant mechanical exhaust system to the exterior capable of providing at least six changes of air per hour;
- (ii) a sill at the doorway (except that no sill shall be required at doorways of flammable gas storage rooms);
- (iii) a sprinkler system providing at least one head per 90 sq. ft.

\* \* \*

(13) All fixed electrical equipment within cold rooms where flammable liquids or flammable gases are used shall be explosion proof in accordance with subdivision (f)(3) of this section. Cold rooms shall not be used for storage of principal stock of flammable gases or flammable liquids.

(e) Signs and warning placards.



- (1) A sign prohibiting smoking shall be conspicuously posted at the exterior of entrances to storage and laboratory areas and within such areas.
- (2) Signs with RED letters of minimum size two inches high by three-eighths inch stroke on a contrasting background shall be posted at entrances to areas:
  - (i) Where materials which react with water are stored or used.
  - (ii) Where flammable gases or explosives are stored or used.
- (3) Warning placards in conformance with Federal, State and Local regulations shall be posted at entrances to areas:
  - (i) Where radioactive material is stored or used;
  - (ii) Where biohazardous material is stored or used;
  - (iii) Where poisonous gases are stored or used.
- (4) The outside of each chemical laboratory unit door shall have a sign, as detailed below, or metal or other durable material, with RED letters on a white background which shall be located in the area of the mid-point of the height of the door.



- (f) Fire prevention and protection.
  - (1) In laboratories and storage rooms which are sprinkled, the protection area per sprinkler head shall not exceed 90 sq. ft., except that the protection area per sprinkler head shall

not exceed 100 sq. ft. where the system is hydraulically designed.

- (2) In existing buildings, water supply to sprinkler systems may be taken off existing standpipes provided that the system is hydraulically designed.
- (3) All electrical equipment in all flammable liquid and all flammable gas storage rooms shall conform with the requirements of the New York City Electrical Code set forth in §27-3198(4), Administrative Code, irrespective of whether such room would be classified as a Class I Location by §27-3197(1) of such code.
- (4) Laboratory units and laboratory work areas shall be considered as unclassified electrically with respect to §27-3197 of the Administrative Code.
- (5) Fume hoods shall be provided and utilized in conformance with these requirements and those of such other agencies as have jurisdiction over operations and special storage conditions which give off noxious odors or flammable or poisonous vapors, or radioactive materials.
- (6) Fume hoods shall be so vented that a minimum average face velocity of 100 feet per minute, with minimum face velocity at any point not less than 75 feet per minute, is provided.
- (7) Fume hoods shall be located away from doors, windows that may be opened, principal traffic lanes or room air outlets or returns which may cause drafts sufficient to interfere with exhaust operations of fume hoods.
- (8) Every fume hood used for handling perchloric acids, strong oxidizing agents or highly reactive chemicals shall be served by an independent duct.
- (9) Common ducts may be permitted for fume hoods in the same laboratory unit. Hoods in different laboratory units shall not have their ducts combined. Hoods in common ducts must be so arranged or equipped that exhaust from one duct cannot be forced out through any other hood served by the common duct.

- (10) Exhaust ducts shall have the minimum number of turns, bends or obstructions as is practical, and shall have adequate air movement in the duct for the number of hoods vented by that duct and sufficient to prevent any back up into the hood.
- (11) Washdown provisions shall be provided for hoods and ducts in which perchloric acid is heated above ambient temperature and in which vapors are not trapped or scrubbed before entering the hood exhaust system.
- (12) Exhaust fans for ducts shall, wherever possible, be located outside the building and as close as possible to the terminal so that negative pressure is maintained in ducts within the building.
- (13) A system of explosion hazard control consisting of explosion prevention, explosion suppression, explosion venting, area ventilation, extinguishment system(s), barrier protection, separation and isolation, remove controlled apparatus or any combination thereof, shall be provided in laboratories or storage rooms where any of the following conditions occur:
- (i) Storage of materials which in themselves are readily capable of detonation or of an explosive decomposition or explosive reaction at normal ambient temperature and pressure.
  - (ii) Use of materials which explode, violently decompose or produce rapid increases in pressure and temperature upon:
    - (A) Vacuum distillation;
    - (B) Being subjected to slight or moderate shock;
    - (C) Exposure to ultraviolet or visible light;
    - (D) Exposure to pressure or more than one atmosphere;
    - (E) Exposure to temperature in excess of 122(degrees)F. or 50(degrees)C.;

(F) Exposure to air;

(G) Increase in the concentration above which the substance is not longer stable;

(H) Standing (i.e. spontaneously).

(iii) Highly exothermic reactions which also involve rapid increases in pressure, such as certain polymerizations, oxidations, nitrations, peroxidations, hydrations, or organometallic reactions.

(iv) Use or formation of materials whose chemical structure or functional group indicate potential hazard, but whose properties have not been established. Examples would be triple bonds, epoxy radicals, nitro and [nitroso] nitrous compounds, and peroxides.

(14) The commissioner shall evaluate the method of explosion hazard control, on an individual basis, considering in each instance the following criteria:

(i) The nature and quantity of the constituent material(s);

(ii) The nature of the process;

(iii) The potential energy release;

(iv) Isolation of the equipment;

(v) The particular physical location and exposures.

\* \* \*

*Note: Retain underlining of **highlighted** text in publication of final rule. Retain brackets and bracketed material of **highlighted** text, without underline, in publication of final rule.*

(2) Former Fire Department Rule 3 RCNY §34-01

**§34-01 Storage and Use of Limited Quantities of Chemicals, Acids, and Flammables for Instruction Purposes in [Public High] Schools Through the Twelfth Grade**

(a) No liquefied chlorine may be stored in any school.

- (b) No more than five (5) gallons of volatile flammable oils derived from petroleum, shale oil or coal tar should be stored at any one time.
- (c) No more than twenty-five (25) pounds of potassium and/or sodium chlorate is permitted to be stored.
- (d) No chemicals or substances as listed under §§27-4240 and 27-4234 of the Administrative Code should be stored in a school.

\* \* \*

- (i) The storage of dangerous chemicals, volatile flammable oils and liquids shall be confined to metal cabinets vented at top and bottom. A cardholder should be provided for a visible record of the contents and maximum amount stored therein; also, a caution sign, if applicable to read: "In case of fire do not use water."

\* \* \*

Note: The foregoing rules shall be the basis for the issuance of Fire Department permits to schools throughout the City of New York.

- (l) Listed below are the maximum quantities of combustibles and dangerous chemicals which may be stored in [public high] schools through the twelfth grade:

Explosives

<u>Picric acid</u>	<u>1 lb.</u>
<u>Carbon bisulphide</u>	<u>10 lbs.</u>
<u>Carbon Dioxide</u>	<u>1 lb.</u>
<u>Anhydrous Ammonia</u>	<u>1 lb.</u>
<u>Sulphur Dioxide</u>	<u>1 lb.</u>
<u>Nitrous Oxide</u>	<u>1 lb.</u>
<u>Oxygen</u>	<u>1 lb.</u>

Volatile Flammable Liquids (Insoluble)

<u>Crude Petroleum</u>	<u>2 lbs.</u>
<u>Benzine, Benola or Naphthas of any kind</u>	<u>2 lbs.</u>
<u>Ether, Sulphuric</u>	<u>10 lbs.</u>
<u>Varnishes, Lacquers, etc.</u>	<u>2 lbs.</u>

Volatile Flammable Liquids (Soluble)

<u>Acetone</u>	<u>1 lb.</u>
<u>Alcohol, Denatured</u>	<u>5 gals.</u>

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<u>Aylcohol. Methyl</u>	<u>5 gals.</u>
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Non-Volatile Flammable Liquids (Insoluble)

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<u>Amyl Acetate</u>	<u>2 lbs.</u>
<u>Amyl Alcohol</u>	<u>2 lbs.</u>
<u>Aniline Oil</u>	<u>1 lb.</u>

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Non-Volatile Flammable Liquids (Insoluble)

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<u>Kerosene</u>	<u>2 lbs.</u>
<u>Turpentine</u>	<u>½ gal.</u>
<u>Tuluol</u>	<u>1 gal.</u>
<u>Xylol</u>	<u>1 gal.</u>
<u>Essential Oils</u>	<u>2 lbs.</u>

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Non-Volatile Flammable Liquids (Soluble)

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<u>Glycerine</u>	<u>5 lbs.</u>
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Combustible Solids

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<u>Phosphorous</u>	<u>¼ lb.</u>
<u>Phosphorous, Red</u>	<u>5 lbs.</u>
<u>Sulphur</u>	<u>15 lbs.</u>
<u>Metallic Magnesium</u>	<u>1 lb.</u>

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Gums, Resins. Pitch, Etc.

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<u>Camphor</u>	<u>1 lb.</u>
<u>Resin</u>	<u>11 lbs.</u>
<u>Venice Turpentine</u>	<u>1 lb.</u>
<u>Naphthaline</u>	<u>1 lb.</u>
<u>Shellac</u>	<u>1 lb.</u>

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Combustible Fibres and Powders (Vegetable)

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<u>Pulverized Charcoal</u>	<u>5 lbs.</u>
<u>Cotton, Absorbent</u>	<u>5 lbs.</u>
<u>Lampblack</u>	<u>2 lbs.</u>
<u>Lycopodium</u>	<u>1 lb.</u>

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Dangerously Corrosive Acids

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<u>Glacial Acetic Acid</u>	<u>5 gals.</u>
<u>Hydrofluoric Acid</u>	<u>1 lb.</u>
<u>Hydrochloric Acid</u>	<u>12 gals.</u>
<u>Sulphuric Acid</u>	<u>12 gals.</u>
<u>Carbolic Acid</u>	<u>1 lb.</u>

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Acids

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<u>Acid, Chromic</u>	<u>1 lb.</u>
<u>Acid, Nitric</u>	<u>12 gals.</u>

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<u>Peroxides</u>	
<u>Hydrogen Peroxide, U.S.P.</u>	<u>0 lbs.</u>
<u>Sodium Peroxide</u>	<u>2 lbs.</u>
<u>Barium Peroxide</u>	<u>2 lbs.</u>
<u>Other Hydrogen Peroxides over 3 percent, not to exceed 15 percent</u>	<u>5 lbs.</u>
<u>Chlorates</u>	
<u>Potassium Chlorate</u>	<u>15 lbs.</u>
<u>Permanganates</u>	
<u>Potassium Permanganates</u>	<u>1 lb</u>
<u>Nitrates</u>	
<u>Barium Nitrate</u>	<u>1 lb.</u>
<u>Strontium Nitrate</u>	<u>1 lb.</u>
<u>Cobalt Nitrate</u>	<u>1 lb.</u>
<u>Copper Nitrate</u>	<u>1 lb.</u>
<u>Iron Nitrate, Ferric Mercury Nitrate (mercuric)</u>	<u>1 lb.</u>
<u>Mercury Nitrate (mercurous)</u>	<u>1 lb.</u>
<u>Potassium Nitrate</u>	<u>10 lbs.</u>
<u>Silver Nitrate</u>	<u>5 lbs.</u>
<u>Sodium Nitrate</u>	<u>15 lbs.</u>
<u>Other Metallic Nitrates</u>	<u>5 lbs.</u>
<u>Metallic Oxides</u>	
<u>Lead Oxide (red)</u>	<u>5 lbs.</u>
<u>Lead Oxide (Litharge)</u>	<u>10 lbs.</u>
<u>Oxide of Mercury red precipitate (mercuric)</u>	<u>10 lbs.</u>
<u>Oxide of Mercury; yellow precipitate (mercurous)</u>	<u>5 lbs.</u>
<u>Substances Made Dangerous by Contact with Other Substances</u>	
<u>Calcium Carbide</u>	<u>5 lbs.</u>
<u>Metallic Potassium</u>	<u>½ lb.</u>
<u>All other Metals of the Alkalies or Alkaline Earths</u>	<u>2 lbs.</u>
<u>Metallic Sodium</u>	<u>½ lb.</u>
<u>Zinc Dust</u>	<u>5 lbs.</u>
<u>Slaked Lime</u>	<u>25 lbs.</u>

*Note: Retain underlining of **highlighted** text in publication of final rule. Retain brackets and bracketed material of **highlighted** text, without underline, in publication of final rule.*

## § 4828-01 Storage of Aerosols in Pre-Existing Facilities

- (a) Scope. This section consolidates the New York City Fire Prevention Code and former Fire Department *rules* in effect on June 30, 2008, that are applicable to the design and installation of aerosol storage in *pre-existing facilities*.
- (b) Definitions. The following terms shall, for purposes of this section and as used elsewhere in Chapter 48 of the rules, have the meanings shown herein:

**Combustible pressurized product.** A pressurized product that has a flashpoint at or above 100 degrees Fahrenheit and below 300 degrees Fahrenheit, or where a flame projection exceeds three (3) inches but not more than eighteen (18) inches at full valve opening when tested by a method described in the regulations of the United States Department of Transportation, as set forth in Title 49, Part 173 of the Code of Federal Regulations. (Former Fire Department rule 3 RCNY 32-01(b))

**Extremely flammable pressurized product.** A pressurized product that has a flashpoint below 20 degrees Fahrenheit and where a flashback (a flame extending back to the dispenser) is obtained at any degree of the valve opening when tested by a method described in the regulations of the United States Consumer Product Safety Commission, as set forth in Title 16, Part 1500 of the Code of Federal Regulations. (Former Fire Department rule 3 RCNY 32-01(b))

**Flammable pressurized product.** A pressurized product that has a flashpoint at or above 20 degrees Fahrenheit and below 100 degrees Fahrenheit, or where a flame projection exceeds eighteen (18) inches at full valve opening or a flashback (a flame extending back to the dispenser) is obtained at any degree of valve opening when tested by a method described in the regulations of the United States Consumer Product Safety Commission, as set forth in Title 16, Part 1500, of the Code of Federal Regulations, or the regulations of the United States Department of Transportation, as set forth in Title 49, Part 173 of the Code of Federal Regulations. (Former Fire Department rule 3 RCNY 32-01(b))

**Pressurized product.** The product in a pressurized container with a propellant that causes the product to be expelled from the container through a valve. This term includes all such products, irrespective of the ingredients of the product, the type of propellant, or form in which the product is dispensed. (Former Fire Department rule 3 RCNY 32-01(b))

- (c) General Provisions. *Pre-existing facilities* with aerosol storage the design and installation of which would not be allowed or approved under the Fire Code, but which, pursuant to FC102.3 and R102-01, may be continued with respect to such aerosol storage under the



applicable laws, rules and regulations in effect prior to the Fire Code, shall continue to comply with the provisions of such laws, rules and regulations, including former Fire Department rule 3 RCNY §32-01, until such time as such facilities may be required to comply with the Fire Code and the rules with respect to their design and installation.

(d) Pressurized Products

(1) Former Fire Department Rule 3 RCNY §32-01

**§32-01 Manufacture, Storage and Use of Pressurized Products**

\* \* \*

(e) Storage and use requirements.

\* \* \*

(2) Combustible, flammable or extremely flammable pressurized products in quantities exceeding the following amounts shall comply with the following additional storage requirements:

(i) Combustible, flammable or extremely flammable pressurized products in quantities exceeding a total of fifty (50) gallons but not more than a total of two hundred (200) gallons shall be stored in an area protected by an automatic fire sprinkler system, an area having natural ventilation, or an area which is vented to the outdoors by a duct having a cross-section of at least eight (8) inches.

(ii) Combustible, flammable or extremely flammable pressurized products in quantities exceeding a total of two hundred (200) gallons shall be stored as follows:

(A) in non-combustible (fireproof) buildings, in a fireproof storage room, unless the building is equipped with an automatic fire sprinkler system or other fire extinguishing system approved by the Department;

(B) in combustible (non-fireproof) buildings, in a fire-resistive storage room that is vented to the outdoors and that is equipped

with an automatic fire sprinkler system or other extinguishing system approved by the Department.

\* \* \*

#### **§ 4829-01 Storage of Combustible Fibers in Pre-Existing Facilities**

- (a) Scope. This section consolidates the New York City Fire Prevention Code and former Fire Department rules in effect on June 30, 2008, that are applicable to the design and installation of *combustible fiber* storage in *pre-existing facilities*.
- (b) Definitions. Reserved
- (c) Facilities in Compliance With Former Fire Department Rules in Effect on June 30, 2008
  - (1) Combustible fiber storage on waterfront structures. *Combustible fiber* storage on waterfront structures in compliance with former Fire Department rule 3 RCNY §30-01 in effect on June 30, 2008, is allowed and would be approved under the provisions of the Fire Code and the *rules*, and accordingly, such *facilities* shall be designed and installed in compliance with the requirements of FC2906.

#### **§ 4831-01 Storage of Corrosive Materials in Pre-Existing Facilities**

- (a) Scope. This section consolidates the New York City Fire Prevention Code and former Fire Department rules in effect on June 30, 2008, that are applicable to the design and installation of *corrosive material* storage in *pre-existing facilities*.
- (b) Definitions. Reserved
- (c) General Provisions. *Pre-existing facilities* with *corrosive material* storage the design and installation of which would not be allowed or approved under the Fire Code, but which, pursuant to FC102.3 and R102-01, may be continued with respect to such *corrosive material* storage under the applicable laws, rules and regulations in effect prior to the Fire Code, shall continue to comply with the provisions of such laws, rules and regulations, including former Fire Department rule 3 RCNY §1-01, until such time as such *facilities* may be required to comply with the Fire Code and the *rules* with respect to their design and installation.
- (d) Acids
  - (1) Former Fire Department Rule 3 RCNY §1-01

**§1-01 Tanks Used for Bulk Storage of Acids**

\* \* \*

(b) Storage tanks.

\* \* \*

- (2) All new or relocated acid storage tanks shall be provided with acid proof dikes capable of holding the full contents of the tank or tanks within the dike in the event of leakage or rupture of the tanks or associated piping.
- (3) New or relocated acid storage tanks shall not be permitted in the basement, cellar or sub-cellar of any structure.
- (4) New, relocated or altered acid storage tanks shall be provided with excess flow valves for all bottom take-offs except where all bottom take-off piping terminates within the containing dike.
- (5) All new and existing acid storage tanks shall be provided with adequate vents, not less than 1 1/4 inches for tanks up to 1,100 gallons, and not less than 2 inches for tanks of 1,100 gallons or more.

\* \* \*

**§ 4833-01 Storage of Explosives in Pre-Existing Facilities**

- (a) Scope. This section consolidates the New York City Fire Prevention Code and former Fire Department rules in effect on June 30, 2008, that are applicable to the design and installation of *explosive* installations in *pre-existing facilities*.
- (b) Definitions. Reserved
- (c) General Provisions. *Pre-existing facilities* for storage of *explosives* the design and installation of which would not be allowed or approved under the Fire Code, but which, pursuant to FC102.3 and R102-01, may be continued with respect to such *explosive* installations under the applicable laws, rules and regulations in effect prior to the Fire Code, shall continue to comply with the provisions of such laws, rules and regulations, including former Fire Department *rule 3 RCNY §14-04*, until such time as such *facilities* may be required to comply with the Fire Code and the *rules* with respect to their design and installation.

(d) Explosive Storage

(1) Former Fire Department Rule 3 RCNY §14-04

**§14-04 Specifications for Explosive Magazines**

All magazines shall be constructed in accordance with the following specifications \* \* \*.

(a) Hinges. Magazine door hinges are to be extra heavy 10-inch galvanized tee hinges, minimum gauge 148 with brass pins. Hinges are to be attached with five 5/16 round head through bolts, two bolts in hinge pad, three bolts in hinge wing.

(b) Hasp. Hasp is to be made of steel bar 1/2 inch by 2 inch, 18 inch minimum length, fastened to magazine door, center with five 5/16-inch round head through bolts on six-inch centers. Hasp bar is to be slotted to accommodate 1/2-inch "I" bolt lock loop.

All lock staples are to be replaced with 1/2-inch "I" bolt, through bolted into magazine wall.

\* \* \*

All exposed bolts inside of magazine are to be counter sunk or wood covered.

**§ 4834-01 Storage of Flammable and Combustible Liquids in Pre-Existing Facilities**

(a) Scope. This section consolidates the New York City Fire Prevention Code and former Fire Department rules in effect on June 30, 2008, that are applicable to the design and installation of *flammable* and *combustible liquid* installations in *pre-existing facilities*.

(b) Definitions. The following terms shall, for purposes of this section and as used elsewhere in Chapter 48 of the rules, have the meanings shown herein:

**Apartment.** An apartment, as defined in subdivision fifteen of section four of the multiple dwelling law. (Fire Prevention Code, former Administrative Code §27-4002(1a))

**Bulk oil storage plant.** A building, shed, enclosure or premises, or any portion thereof, in which petroleum or coal tar, or the liquid products thereof, are stored or kept for sale in large quantities. (Fire Prevention Code, former Administrative Code §27-4002(31))

**Combustible mixture.** A liquid or mixture having a closed-cup flashpoint at or above a temperature of one hundred degrees Fahrenheit, except that, for purposes of transportation, a combustible mixture shall mean a liquid or mixture defined as a combustible liquid by the United States Department of Transportation. (Fire Prevention Code, former Administrative Code §27-4002(10))

**Diesel fuel oil.** Any liquid, used as a motor fuel which does not emit a flammable vapor below a temperature of one hundred degrees Fahrenheit when tested in a Tagliabue open cup tester. (Fire Prevention Code, former Administrative Code §27-4002(10b))

**Flammable mixture.** A liquid or mixture having a closed-cup flashpoint at a temperature below one hundred degrees Fahrenheit, except that, for purposes of transportation, a flammable mixture shall mean a liquid or mixture defined as a flammable liquid by the United States Department of Transportation. (Fire Prevention Code, former Administrative Code §27-4002(22))

**Essential oil.** An oil used for flavoring or perfuming purposes. (Fire Prevention Code, former Administrative Code §27-4002(13))

**Fire retarding material.** Asbestos board in two layers, each one-fourth inch in thickness, the second layer breaking joints in all directions with the first, or plaster boards cocoa fibre filled, covered with lap jointed metal not less than 26 B. & S. gauge in thickness, and any other material that has successfully passed the one hour fire test prescribed by the industrial board of appeals of the state labor department on the twenty-ninth day of October, nineteen hundred fourteen. (Fire Prevention Code, former Administrative Code §27-4002(16))

**Fuel oil.** Any liquid mixture, substance or compound, derived from petroleum, which does not emit a flammable vapor below a temperature of one hundred twenty-five degrees Fahrenheit, when tested in a Tagliabue open cup tester. (Fire Prevention Code, former Administrative Code §27-4002(18))

**Garage.** A building, shed or enclosure, or any portion thereof, in which a motor vehicle other than one the fuel storage tank of which is empty, is stored, housed or kept. (Fire Prevention Code, former Administrative Code §27-4002(19))

**Kerosene.** Any liquid product of petroleum, commonly used for illuminating purposes, which does not emit a flammable vapor below a temperature of one hundred degrees Fahrenheit, when tested in a Tagliabue open cup tester. (Fire Prevention Code, former Administrative Code §27-4002(23))

**Motor fuel.** Gasoline, diesel fuel oil or other flammable or combustible liquids or mixtures used as fuel in the operation of motor vehicles, motorcycles, motor boats and aircraft. (Fire Prevention Code, former Administrative Code §27-4002(26a))

**Oil and fat or fat and oil.** Any oil, fat or grease, of animal, vegetable or mineral origin, except essential oils. (Fire Prevention Code, former Administrative Code §27-4002(29))

**Vault.** A covered excavation or chamber, below the street level, with masonry walls and roof, constructed outside the foundation walls of a building, and with but one entrance, fitted with a self-closing fireproof door. (Fire Prevention Code, former Administrative Code §27-4002(42))

**Volatile flammable oil.** Any oil or liquid that will generate a flammable vapor at a temperature below one hundred degrees Fahrenheit when tested in a Tagliabue open cup tester. (Fire Prevention Code, former Administrative Code §27-4002(43))

(c) General Provisions. *Pre-existing facilities with flammable and combustible liquid installations the design and installation of which would not be allowed or approved under the Fire Code, but which, pursuant to FC102.3 and R102-01, may be continued with respect to such flammable and combustible liquid installations under the applicable laws, rules and regulations in effect prior to the Fire Code, shall continue to comply with the provisions of such laws, rules and regulations, including former Administrative Code §§27-4053, 27-4055, 27-4065, 27-4066, 27-4069, 27-4070, 27-4094, 27-4227, 27-4231 and 27-4265, and former Fire Department rules 3 RCNY §§8-01, 8-02, 20-07, 21-05, 21-06, 21-17, 28-01 and 28-04, as applicable, until such time as such facilities may be required to comply with the Fire Code and the rules with respect to their design and installation.*

(d) Flammable Liquid Manufacture, Storage and Use

(1) Former Administrative Code §27-4065

**§27-4065 Manufacture**

\* \* \*

b. Restrictions. No permit for the manufacture of flammable mixtures shall be issued for any building:

1. Which is situated within fifty feet of the nearest wall of any building occupied as a school, hospital, theatre or other place of public amusement or assembly;

2. Where the building does not comply with the requirements of the building code regulating high hazard occupancies for buildings erected after the sixth day of December, nineteen hundred sixty-eight; or where a building or building section erected prior thereto is not fully equipped with an approved automatic sprinkler system; or where the building is occupied as a multiple

dwelling, dwelling, school, theatre or other place of public amusement or assembly;

3. Which is artificially lighted by any means other than electricity;

4. Where drugs, cigars, cigarettes or tobaccos are kept for sale;

5. Where dry goods or other materials of a highly flammable nature are manufactured, stored or sold;

6. Where matches, rosin, hemp, cotton or any explosives are stored [as] or sold.

\* \* \*

e. Drawing-off pipe. The drawing-off pipe shall be encased in and surrounded by either four inches of Portland cement concrete or eight inches of brick masonry up to the level of the floor on which the compartment containing the mixing tank is located.

f. Filling pipes. The filling pipe shall be at least two inches and not larger than four inches nominal inside diameter, and shall be laid at a descending grade to the tank, terminating within six inches of the bottom of the tank. The intake of a filling pipe shall be located outside of any building and not less than ten feet from any door, subway grating or basement opening, and in a heavy metal box, which shall be sunk flush with the sidewalk at the curb level, or at some other location offering equal facilities for the filling of the tank and fitted with a heavy metal cover, which shall be liquid tight and kept closed when not in use. The filling pipe shall be closed at the intake by a cock or valve fitted with a coupling for attaching to the tank truck, and with a liquid tight cap or plug to close the opening when not in use. The filling pipe shall be provided with a screen made of one thickness of 20-mesh brass wire gauze, placed immediately below the filling cock or valve. Where a storage system for flammable liquids and a storage system for diesel motor fuel oil and/or fuel oil are to be used on the same premises, the terminal of the diesel motor fuel oil and/or fuel oil fill pipe shall be provided with a left handed thread and the fill pipe fitting shall be of a different size than that required for the fill pipe to tanks containing flammable liquids. In lieu of the foregoing, fill boxes may be of a type for which a certificate of approval shall have been issued by the commissioner or previously approved by the board of standards

and appeals, unless such approval is amended or repealed by the commissioner, and shall have cast in its cover an identifying name or symbol to differentiate between fuel oil for heating and diesel oil as motor fuel.

- g. Lighting. It shall be unlawful to install any system of artificial lighting other than electric lighting in any premises used for the manufacture of flammable mixtures. Such lighting shall be installed in accordance with the requirements of the electrical code. All electric switches and plugs shall be placed at least four feet above the floor.
- h. Mixing tank. The mixing tank shall be located in a separate compartment built upon suitable foundations, having the walls, floor and roof constructed of Portland cement at least six inches thick, or of brick masonry, at least two inches thick, the brick to be laid in and covered by Portland cement mortar. Each such tank shall be filled either by means of a pump or an approved pressure system, and the tank shall be kept closed except when the ingredients entering into the manufacture of the flammable mixture are being placed therein. Each compartment wherein a mixing tank is located shall be equipped with self-closing fireproof doors and windows.
- i. Piping, generally. Each storage tank shall be provided with a filling pipe, a drawing-off pipe and a vent pipe; provided that tanks installed as part of a hydraulic storage system shall not be required to have a vent pipe. All pipes and fittings shall be of galvanized steel, designed to withstand a hydrostatic pressure test of at least one hundred pounds to the square inch. All screw joints shall be made with a piping compound of a type for which a certificate of approval shall have been issued by the commissioner or previously approved by the board of standards and appeals, unless such approval is amended or repealed by the commissioner. In lieu of galvanized steel fittings, galvanized malleable iron fittings, with one hundred and fifty p.s.i. rating, may be used on any system that is provided with a leak detection system satisfactory to the fire commissioner such as probe holes, leak detection cables or other devices installed around the perimeter of the tank installation, designed for monitoring and that will be subjected to a hydraulic pressure test with water or product at ten p.s.i. in the presence of a fire department representative, every ten years. Brass trimmed specialty valves and brass control valves may be used in underground service lines and portions of suction lines within pump housing.



m. Tanks. [ Each tank used for the storage of volatile flammable oil shall be:]

1. [Of] Each tank used for the storage of volatile flammable oil shall have a capacity not exceeding four thousand gallons [each] when equipped with a double complete shell or when embedded or encased in twelve inches of concrete to the level of the top of the tanks. [ and in no case shall storage] Storage on a premises, including all tanks, shall not be in excess of twenty thousand gallons. [, and tanks] Tanks shall be of a type acceptable to the commissioner and constructed of American tank or carbon steel of the open hearth process[, of]. Tanks designed to contain no more than five hundred fifty gallons shall be at least one-quarter of an inch in thickness. [ for tanks not exceeding five hundred fifty gallons and for tanks] Tanks designed to contain over five hundred fifty gallons shall be at least one quarter of an inch in thickness for shell and five-sixteenths of an inch in thickness for heads, all welded with flanged and dished heads, with two inch lap weld with no tank openings piercing seams and all tank openings shall be provided at the top. [; at] At the time of installation all storage tanks shall bear a permanently affixed plate, spot welded or equivalent, having the name of tank manufacturer, the thickness of metal and capacity of tank. In lieu of the foregoing tank specifications, other tank construction acceptable to the commissioner may be permitted consistent with public safety, and before being covered or used together with all piping shall be tested hydrostatically to a pressure of thirty pounds per square inch, except discharge lines under pressure shall be tested to one hundred pounds per square inch or one and one-half times the maximum working pressure, whichever is greater, for a period of thirty minutes by the installer. [ in the presence of and witnessed by a representative of the fire department.] and shall not show any leakage. Such testing shall be conducted in the presence of a representative of the department.
2. [Thoroughly] Each tank used for the storage of volatile flammable oil shall be thoroughly cleaned and coated on the outside with two coats of red lead and with hot tar, asphalt or other rust resisting material, except that tanks

equipped with a double complete shell shall be protected against corrosion to the satisfaction of the department and have a leak-detecting device acceptable to the commissioner[, and]. Each tank shall be set on a solid foundation approved by the department of buildings and except for double shell tanks shall be embedded or encased to the level of the top of the tank in at least twelve inches of concrete, having a minimum compressive strength of twenty-five hundred pounds per square inch at twenty-eight days. [Tanks] Each tank shall be covered with a structurally supported reinforced concrete slab at least eight inches thick extending at least twelve inches beyond the horizontal outlines of the tanks and placed over a coverage of clean sand or clean earth fill, the slab and its supports to be of a design as approved by the department of buildings. Excavation for storage tanks shall be made with due care to avoid undermining of foundations of existing structures.

3. [So set] Each tank used for the storage of volatile flammable oil shall be set so that the top or highest point thereof shall be at least two feet below the level of the lowest cellar floor of any building within a radius of ten feet from the tank[, and no]. No tank used for the storage of volatile flammable oil shall be located under the sidewalk or beyond the building line.
4. It shall be unlawful to cover from sight any tank, forming part of the buried oil storage system, until after an inspection has been made by the department, and written approval has been given; which approval shall be given without charge provided all the regulations have been complied with.
5. [Provided] When a tank used for the storage of volatile flammable oil is located inside a building it shall be provided with a liquid level or depth indicating device[ when the tank is located inside a building]. Test wells will not be permitted in tanks located inside of buildings. Liquid level or depth indicating devices [,] installed after this section takes effect[, ] shall be substantially constructed and designed to prevent the escape of liquid or vapor and shall be of a type for which a certificate of approval shall have been issued by the commissioner or previously approved by the board of standards and appeals, unless such approval is amended or repealed by

the commissioner. Unused tank openings shall be permanently sealed at the tank to prevent removal of plugs or covers.

- n. Vent pipe. In other than hydraulic systems each tank shall be provided with a separate vent pipe[; vent]. Vent pipes for tanks not exceeding five hundred fifty gallons shall be at least one inch in diameter for existing installations and at least one and one-half inches in diameter for new vent pipe installations[, and]. Vent pipes for tanks over five hundred fifty gallons shall be not less than two inches in diameter[ for tanks over five hundred fifty gallons, and]. Vent pipes shall run from the tank to the outer air at a position higher than the fill pipe opening[, and]. Vent pipes for tanks located outside of buildings and for vents affixed to a building wall at least ten feet for existing installations and at least fifteen feet for new installations above the adjacent ground level, and for tanks inside buildings at least ten feet above the roof of the building in which the plant or tank is located, and shall be at least ten feet from the nearest building opening, and well braced in position. Each vent pipe shall have a double[.] swing joint at the tank and a single swing joint at the vertical riser[ and when such]. When a vent pipe exceeds two inches in diameter it shall be capped with a double gooseneck, cowl, or hood, and shall be provided with either a screen made of two thicknesses of 20-mesh brass wire gauze, placed immediately below the gooseneck, cowl or hood or [provided with] a flame arrestor of a type approved by a nationally recognized laboratory. A vent pipe shall not be obstructed by devices that will reduce [their] its capacity and thus cause excessive back pressure.
- o. Ventilating flue. Each compartment wherein a mixing tank is located shall be equipped with a ventilating flue, constructed of brick or concrete, lined with tile pipe at least eight inches square, inside measurement, and extending from the floor of the compartment at a point opposite the door, to at least six feet above the highest point of the roof, and at least ten feet from the nearest wall of any adjoining building. Such flue shall have an opening into the mixing compartment six inches square and three inches above the floor, and shall be equipped with a double gooseneck eight inches square, made of at least 18-gauge galvanized iron. All openings shall be covered with 20-mesh brass wire screens.
- p. Fire prevention. It shall be unlawful to allow any stove, forge, torch or other device employing flame or fire, or any electric or other apparatus which is likely to produce an exposed spark, in

any building used for the manufacture of flammable mixtures, unless it be placed in a room or compartment separated from the remainder of the building by a partition constructed of fire retarding material and provided with a self-closing fireproof door; provided, however, that electric motors may be of the fully enclosed type or provided with an approved type "A" (fire department specifications) motor enclosure. The terminal blocks also shall be protected. It shall be unlawful to locate any boiler or furnace in any such building, unless separated from the remainder of the building by an unpierced fireproof wall consisting of solid masonry or its equivalent, of at least eight inches in thickness; provided, however, that where the construction of such unpierced wall shall be impracticable, the commissioner may permit such openings in such wall as may be necessary, and prescribe such protection therefor as in his or her judgment the particular case shall require. \* \* \*

r. Installation of pumps. The installation of pumps shall conform to paragraphs three and six of subdivision b of section 27-4081 of this chapter insofar as applicable.

*Note: Retain underlining of **highlighted** text in publication of final rule. Retain brackets and bracketed material in **highlighted** text, without underline, in publication of final rule.*

(2) Former Administrative Code §27-4066

**§27-4066 Requirements for below-grade storage in mercantile occupancies**

A system of automatic sprinklers shall be provided in each basement, cellar or other location below grade, regardless of the floor area of such space, in any mercantile establishment in which the commissioner permits the storage of flammable mixtures, except that, where flammable mixtures are stored in such basement, cellar or other location below grade, in a room or other area that is segregated, vertically and horizontally, from surrounding spaces by a fire separation of not less than a two-hour fire-resistance rating, such system of automatic sprinklers shall be required only within such room or other area. Such system of automatic sprinklers shall conform to the requirements for automatic sprinklers for spaces classified in storage occupancy group B-1 pursuant to subdivision d of section 27-954 of the building code.

(3) Former Administrative Code §27-4265

**§27-4265 Fire extinguishing appliances**

\* \* \*

b. Sprinkler systems in garment factories and factories using flammable oil for processing:

1. A one source automatic wet pipe sprinkler system shall be provided in every non-fireproof building in which there is a garment factory or a factory engaged in the processing of combustible fabrics with a flammable oil, and which exceeds three stories in height and in which more than fifty persons are employed above the street floor.
2. The provisions of subdivision a shall not apply to a factory which is incidental to the conduct of a retail business on the premises, provided not more than six persons are employed at any time in such incidental manufacturing.
3. For the purposes of this section, a flammable oil is one which emits a flammable vapor below one hundred twenty-five degrees Fahrenheit when tested in a Tagliabue open cup tester.
4. Garment factory shall include those factories engaged in making underwear, dresses, suits and coats.
5. The commissioner may accept an automatic dry pipe sprinkler system in place of an automatic wet pipe sprinkler system where low temperatures or other conditions would prevent the installation of a wet pipe system.
6. The sprinkler systems shall be provided in all parts of such buildings.
7. The provisions of this section shall apply to existing buildings and to buildings hereafter erected.

\* \* \*

(e) Combustible Liquid Manufacture and Storage

(1) Former Administrative Code §27-4069

**§27-4069 Manufacture**

a. Restriction. No such permit shall be issued for the manufacturing of combustible mixtures in any building within the restrictions of subdivision b of section 27-4065 of this chapter of the code.

(2) Former Administrative Code §27-4070

**§27-4070 Requirements for below-grade storage in mercantile occupancies**

A system of automatic sprinklers shall be provided in each basement, cellar or other location below grade, regardless of the floor area of such space, in any mercantile establishment in which the commissioner permits the storage of combustible mixtures, except that, where combustible mixtures are stored in such basement, cellar or other location below grade, in a room or other area that is segregated, vertically and horizontally, from surrounding spaces by a fire separation of not less than a two-hour fire-resistance rating, such system of automatic sprinklers shall be required only within such room or other area. Such system of automatic sprinklers shall conform to the requirements for automatic sprinklers for spaces classified in storage occupancy group B-1 pursuant to subdivision d of section 27-954 of the building code.

(f) Distilled Liquors and Alcohols

(1) Former Administrative Code §27-4227

**§27-4227 Restrictions**

a. No permit shall be issued for the manufacture, distillation, rectification, or storage of distilled liquor, spirits or alcohols, in quantities exceeding the amounts set forth in subdivision b of this section, in any building:

1. Which is situated within fifty feet of the nearest wall of any building occupied as a hospital, school, theatre or other place of public amusement or assembly;

2. Where the occupancy within the building in which the distilled liquor, spirits or alcohols are manufactured, distilled, rectified or stored does not comply with the requirements of the building code regulating high hazard occupancies for buildings erected after the sixth day of December,

nineteen hundred sixty-eight; or where [a] such occupancy is located in a building [or building section] erected prior thereto and such occupancy is not fully equipped with an approved automatic sprinkler system.

b. The provisions of subdivision a of this section shall apply where the combined total amount of distilled liquor, spirits or alcohols being manufactured, distilled, rectified or stored exceeds:

1. 5,000 gallons, if such distilled liquor, spirits or alcohols is kept stored in the manufacturer's original sealed containers, and is not dispensed or used on the premises.

2. 3,000 gallons, if such distilled liquor, spirits or alcohols is dispensed or used on the premises.

*Note: Retain underlining of highlighted text in publication of final rule. Retain brackets and bracketed material of highlighted text, without underline, in publication of final rule.*

(g) Petroleum, Shale Oils and the Liquid Products thereof

(1) Former Administrative Code §27-4055

**§27-4055 Limited Storage Permit**

a. Permits may be issued for the storage of petroleum and shale oil, and the liquid products thereof, and of coal tar, in a manner satisfactory to the commissioner, in buildings or premises other than storage plants, approved tank trucks or other vehicles, or approved buried tank systems, in quantities not to exceed the following:

1. Volatile flammable oils five hundred fifty gallons, except that such oils may be stored in larger quantities in fire department approved tank trucks or other vehicles, pending deliveries, in outdoor spaces, when permitted by the zoning resolution, when provided with portable fire fighting appliances as the commissioner may direct, or, when such trucks or other vehicles are equipped with battery cutoff switches, within fully sprinklered buildings complying with the building code and the zoning resolution of the city of New York.

2. Other oils that do not emit a flammable vapor at a temperature below one hundred degrees Fahrenheit, when tested in a Tagliabue open cup tester--one thousand one hundred gallons, except that such oils may be stored in larger quantities in fire department approved tank trucks or other vehicles, pending deliveries, in outdoor spaces or within buildings complying with the zoning resolution and the building code, when provided with the following minimum fire protection:

i. In outdoor spaces portable fire fighting appliances as the commissioner may direct.

ii. Within buildings portable fire fighting appliances as the commissioner may direct, battery cutoff switches, and sprinkler protection as required by the building code, except that for existing buildings lawfully occupied as a garage prior to the sixth of December, nineteen hundred sixty-eight, sprinkler protection shall be provided for storage of over forty-five thousand (45,000) gallons, and sprinkler protection, or smoke detection or thermostatic alarm system with connection to central office, shall be provided for storage of between twenty-two thousand five hundred (22,500) and forty-five thousand (45,000) gallons, all in accord with subdivision (a) of section 27-243, subdivisions (a) and (b) of section 27-455, subchapter seventeen of chapter one of this title and reference standard RS 17-3 of the code. For storage of less than twenty-two thousand five hundred (22,500) gallons--portable fire fighting appliances, as the commissioner may direct, shall be provided, in accord with subdivision (c) of section 27-455 of this title of the code. A permit shall be required for storage of product pending delivery except when such storage is on the site of, or in the immediate proximity of, a bulk oil storage plant.

b. Restrictions. No permit shall be issued for the storage or sale of volatile flammable oil in any building:

1. Where the building does not comply with the requirements of the building code regulating high hazard occupancies for buildings erected after the sixth day of



December, nineteen hundred sixty-eight; or where a building or building section erected prior thereto is not fully equipped with an approved automatic sprinkler system; or where the building is occupied as a multiple dwelling, dwelling, school, theatre or other place of public amusement or assembly; except that group one public garages, as defined and classified in the building code shall be permitted. The commissioner may issue a permit for the storage and use of such volatile flammable oil in buildings occupied as schools, colleges, universities, hospitals and/or related facilities, when such oil is required for educational, instructional, clinical, diagnostic, research or testing purposes. Such use and storage shall be in such amounts and under such conditions as the commissioner shall prescribe;

2. Where explosives are stored or kept for sale or use;
3. Where dry goods or other material of a highly flammable nature are manufactured, stored or kept for sale;
4. Where the portion of the building occupied or used for the storage of volatile flammable oil is lighted by any means other than electricity;
5. Upon any floor above the ground floor of a building, except in an approved safety can in quantities of five gallons or less and for use only.

(h) Paints, Varnishes and Lacquers

(1) Former Administrative Code §27-4094

**§27-4094 Restrictions**

- a. No permit for the manufacture, mixing or compounding of paints, varnishes or lacquers shall be issued for any premises:
  1. Which are situated within fifty feet of the nearest wall of a building occupied as a school, theatre or other place of public amusement or assembly;
  2. Where the building does not comply with the requirements of the building code regulating high hazard occupancies for buildings erected after the sixth day of December, nineteen hundred sixty-eight; or where a

building or building section erected prior thereto is not fully equipped with an approved automatic sprinkler system; or where the building is occupied as a multiple dwelling, dwelling or factory, except where paint is the commodity manufactured in such factory;

3. Which are artificially lighted by any means other than electricity;

4. Where drugs, cigars, cigarettes or tobaccos are kept for sale;

5. Where dry goods or other highly flammable materials are manufactured, stored or kept for sale.

b. A system of automatic sprinklers shall be provided in each basement, cellar or other location below grade, regardless of the floor area of such space, in any mercantile establishment in which the commissioner permits the storage of flammable or combustible paints, varnishes, lacquers or other substances, mixtures or compounds commonly used for painting, varnishing, staining or similar purposes, except that, where such flammable or combustible substances, mixtures or compounds are stored in such basement, cellar or other location below grade, in a room or other area that is segregated, vertically and horizontally, from surrounding spaces by a fire separation of not less than a two-hour fire-resistance rating, such system of automatic sprinklers shall be required only within such room or other area. Such system of automatic sprinklers shall conform to the requirements for automatic sprinklers for spaces classified in storage occupancy group B-1 pursuant to subdivision d of section 27-954 of the building code.

(i) Oils and Fats

(1) Former Administrative Code §27-4231

**§27-4231 Restrictions**

No permit shall be issued for the storage of oils, fats, greases or soap stock in any building or premises:

1. Which is situated within fifty feet of the nearest wall of any building occupied as a school, hospital, theatre, or any other place of public amusement or assembly;

- 2. Where the building does not comply with the requirements of the building code regulating high hazard occupancies for buildings erected after the sixth day of December, nineteen hundred sixty-eight; or where a building or building section erected prior thereto is not fully equipped with an approved automatic sprinkler system; or where the building is occupied as a multiple dwelling, school, theatre or other place of amusement or assembly;
- 3. Which is not equipped with a fire extinguishing system satisfactory to the commissioner;
- 4. Where matches or any explosives are stored or kept.

(2) Former Department Rule 3 RCNY §8-01

**§8-01 Fire Extinguishing Requirements for the Storage of Fats and Oils**

(a) Section 27-4231(3) of the Administrative Code of the City of New York shall be interpreted to mean an approved system of automatic sprinklers when:

Fats and oils are stored in quantities exceeding the equivalent of 100 barrels. In addition, when more than 100 barrels of fats and oils are to be stored in any building occupied in part as a dwelling, that portion of the building occupied by the applicant must be separated from the rest of the building by fireproof walls and floors of at least a three hour rating.

(3) Former Department Rule 3 RCNY §8-02

**§8-02 Storage and Use of Cable Oils with a Flashpoint Over 300°F**

\* \* \*

(b) Tanks installed for the storage of cable oils exceeding a flashpoint of 300°F, shall be installed in conformity with the fuel oil rules of the Board of Standards and Appeals.

\* \* \*

(j) Bulk Plants and Terminals

(1) Former Administrative Code §27-4053

**§27-4053 Bulk oil storage plants**

\* \* \*

b. Bulk oil storage

1. Tank construction. All tanks, as to thickness and quality of material, dike wall enclosures, foundations, piping, valves and other related devices or equipment, comprising or forming part of a bulk oil storage plant, shall be designed and constructed in accordance with all applicable provisions of the building code.

2. Tank locations

A. Adjoining properties. The distance between any part of an above ground storage tank and the nearest line of adjoining property which may be built upon, shall be in accordance with the following distance table: (For the purpose of determining nearest line of adjoining property which may be built upon, the width of any abutting public thoroughfare shall be included.)

<u>Tank capacity</u>	<u>Minimum distance</u>
<u>1,000 to 12,000 gallons</u>	<u>10 feet</u>
<u>12,001 to 30,000 gallons</u>	<u>20 feet</u>
<u>30,001 to 50,000 gallons</u>	<u>25 feet</u>
<u>Vertical cylindrical tanks (for storage of oil having a flash point below one hundred (100) degrees Fahrenheit).</u>	
<u>Over 50,000 gallons:</u>	<u>Not less than the greater dimension of height or diameter of tank, except that such distance need not exceed one hundred twenty (120) feet, and in no case closer than twenty-five (25) feet.</u> <u>No such tank shall exceed forty (40) feet in height.</u>
<u>Rectangular tanks (for storage of oil having a flash point below one hundred (100) degrees Fahrenheit).</u>	
<u>Over 50,000 gallons:</u>	<u>Not less than the total of the length and the width of the tank divided by two except that such distance need not exceed one hundred twenty (120) feet, and in no case closer than twenty-five (25) feet.</u> <u>No such tank shall exceed forty (40) feet in</u>

	<u>height.</u>
<u>Vertical cylindrical tanks (for storage of oil having a flash point of one hundred (100) degrees Fahrenheit or above).</u>	
<u>Over 50,000 gallons:</u>	<u>Not less than one-half (1/2) the greater dimension of height or diameter of tank, except that such distance need not exceed one hundred twenty (120) feet, and in no case closer than twenty-five (25) feet.</u> <u>No such tank shall exceed forty-eight (48) feet in height.</u> <u>However, the commissioner may modify the height limitation to such extent as he or she may deem necessary in the interest of public safety. In no case shall such modification authorize the erection of vertical cylindrical tanks exceeding the height of sixty-four (64) feet.</u>
<u>Rectangular tanks (for storage of oil having a flash point of one hundred (100) degrees Fahrenheit or above).</u>	
<u>Over 50,000 gallons:</u>	<u>Not less than the total of the length and the width of the tank divided by four (4), except that such distance need not exceed one hundred twenty (120) feet, and in no case closer than twenty-five (25) feet.</u> <u>No such tank shall exceed forty (40) feet in height.</u>

\* \* \*

5. Truck loading racks

\* \* \*

B. Each truck loading rack shall be equipped with a remote manually controlled water spray system. Spray nozzles shall be required over each tank truck loading position immediately below the roof beams of the loading rack and installed in a manner to adequately protect the entire loading rack area. At least one remote control valve shall be provided for the control of the water supply for each four loading positions. Piping and fitting shall be so installed that they can be thoroughly drained. An approved pump for such system shall receive water supply from an independent suction tank or direct connection to the city water main.

The rated capacity of the pump shall be at least five hundred (500) gallons per minute at one hundred fifty (150) p.s.i.

\* \* \*

(l) Liquid Tank Storage Systems

(1) Former Fire Department Rule 3 RCNY §21-06

**§21-06 Safeguards for Filling Above Ground Storage Tanks in Paint Stores**

- (a) Flammable liquids which flash below 100°F shall be stored in sealed containers which shall not be opened on the premises, or in approved buried storage systems. When tanks cannot be buried, they may be vaulted in masonry at least 8" thick with a 24" access door. The vault is to be provided with mechanical ventilation to the outer air. Tanks are to be approved 275 or 550 gallon capacity. Electrical equipment is to be explosion-proof.
- (b) Combustible liquids which flash over 100(degrees)F may be stored in Bowser or similar type above ground tanks which shall not exceed one hundred and ten (110) gallons in capacity.
- (c) Fill lines shall terminate at curb in approved type fill boxes with means for locking.
- (d) Vent lines shall terminate in the outer air with weatherproof hoods, screened, two (2) feet above the fill terminal and two (2) feet from any building opening. Vent lines shall be visible from fill line terminal.
- (e) No other filling method shall be employed.
- (f) Pumps shall be of approved type.
- (g) A minimum of 64 square inches of fixed ventilation shall be provided for the storage and filling areas.
- (h) The boiler room shall be separated from the tank location area by approved masonry.
- (i) A fireproof self-closing door and 6" masonry sill to be provided at the opening of the boiler room.

(j) A catch basin shall be provided with a return line to the storage tank. A check valve to prevent escape of vapors shall be installed in the return line.

(k) The number of Bowser or similar type tanks shall not exceed five (5).

\* \* \*

(2) Former Fire Department Rule 3 RCNY §21-17

**§21-17 Installation of Storage Tanks and Piping for Liquids Having Flashpoints of 100 Degrees Fahrenheit or Higher Tag. liabue Open Cup**

\* \* \*

(d)(1) Construction of tanks. All storage tanks shall be designed in accordance with the following provisions:

(i) All storage tanks shall be built of steel plates or sheets, made by the open hearth or basic oxygen process. Such steel shall be free from physical imperfections, and shall be new, in good condition, and free from rust.

(ii) Tanks shall be welded, riveted and caulked, or riveted and welded. Flanges or other pipe connections may be welded. All caulking shall be placed with round nose tools and without damage to the plates. Filler of any kind between plates shall be prohibited.

(iii) Tanks to be buried shall be cleaned and then coated on the outside with two coats of red lead, or equivalent. They shall be further protected by a coating of hot tar, asphalt, or equivalent rust resistive material, applied at the work site. Tanks installed above ground shall be coated with one coat of red lead, or equivalent.

(iv) All buried storage tanks shall be constructed of at least 1/4-inch thick metal and shall be designed to withstand any external loads to which the tank may be subjected.

- (v) At the time of installation all storage tanks shall bear a permanently fixed plate, spot welded or equivalent, bearing the name of the tank manufacturer, the gauge of the materials, and capacity of the tank. Shop fabricated storage tanks shall be installed without structural alteration.
  - (vi) All openings shall be through the top of the storage tank, except that storage tanks of 275-gallon capacity or less, located above ground but below the lowest story, may be provided with a 3/4-inch opening for gravity discharge and a 1-inch opening in the bottom for cleaning and protection against corrosion.
  - (vii) Above ground tanks outside of buildings shall be electrically grounded in accordance with the requirements for equipment grounding of the Electrical Code of the City of New York.
- (2) Construction requirements. Cylindrical tanks, of more than 275 gallon capacity, except vertical tanks above ground outside of buildings:
- (i) The thickness of cylindrical tanks, including oval, elongated oval, or round tanks of more than 275-gallon capacity shall be subject to the following requirements:
    - (A) Tanks 36 inches in diameter and less-at least 1/4-inch shell and 1/4-inch heads.
    - (B) Tanks 37 to 72 inches in diameter-at least 1/4-inch shell and 5/16-inch heads.
    - (C) Tanks 73 to 120 inches in diameter-at least 5/16-inch steel and 3/8-inch head.
    - (D) Tanks over 120 inches in diameter shall be of at least 3/8-inch steel and shall be stiffened by angle rings or equivalent members so as to retain their cylindrical form.



(ii) Dished heads for such tanks shall have a curvature the radius of which is not greater than the diameter of the tank. Dished heads shall be formed with an adequate cylindrical extension rim to provide a welding or riveting surface. If flat heads are used, they shall be braced in the same manner as described for the bracing of flat sides of rectangular tanks.

(iii) Riveting in single lap seams shall not exceed a pitch as follows:

(A) Shell 1/4-inch thick-5/8-inch diameter rivets, 2 1/4-inch pitch.

(B) Shell 5/16-inch thick-5/8-inch diameter rivets, 2 3/8-inch pitch.

(C) Shell 3/8-inch thick-3/4-inch diameter rivets, 2 1/2-inch pitch.

(3) Rectangular tanks, of more than 275-gallon capacity

(i) Plates for rectangular tanks of more than 275-gallon capacity shall be at least 5/16-inch thick.

(ii) Corners may be made up by bending the plates or by using angles.

(iii) Minimum rivet diameter in seams shall be 5/8-inch and rivets shall be spaced not more than 2 1/4-inch center-to-center.

(iv) All flat surfaces of rectangular tanks shall be braced by structural members or rods.

(v) When structural members are used, the rivet pitch shall not exceed 6 inches.

(vi) All structural members shall be designed in accordance with the requirements of Subchapter 10 of Chapter 1 of Title 27 of the Administrative Code.

(vii) Connections between bracing members and the sides of the tank shall be designed so that the

connections will not fail before the member will fail.

(4) All tanks except vertical tanks above ground 275 gallons or less capacity. All storage tanks of 275-gallon capacity or less that are not buried shall have a minimum thickness of shell and head plated of number 10 manufacturer's standard gauge steel plate. Storage tanks of 60-gallon capacity or less shall be similarly constructed but need not be thicker than No. 14 manufacturer's standard gauge.

(5) Vertical storage tanks over 1,000-gallon capacity located outside of building above ground

(i) Vertical tanks located outside of buildings above ground shall be built of steel plates of the quality required for cylindrical tanks.

(ii) The minimum thickness of roof plates shall be 1/8-inch. The thickness of shell plates shall be determined in accordance with the following formula:

$$t = \frac{TE}{PRF}$$

Where: t=thickness of shell plate in inches

P=head pressure at bottom of ring under consideration in p.s.i.

R=radius of shell, in inches

F=factor of safety (taken as 5)

T=tensile strength of plate, in p.s.i. as verified by mill test certificate

E=efficiency of vertical joint in pipe under consideration

E shall in no case be taken greater than 1.00.

Roof plates shall have single lap-riveted or welded water-tight seams, and the roof shall be built to shed water. Bottom plates shall have single lap riveted or welded seams. Shell plate seams shall be designed to develop the full strength of the plate.

(e)(1) Location of tanks. Inside of building, above ground on the lowest floor

(i) Tank Capacity of 550 gallons or less. Storage tanks having a capacity of 550 gallons or less may be installed above ground on the lowest floor of a building, provided that such tanks are mounted on adequate noncombustible supports, with the tank anchored thereto. No more than 550 gallons of total storage capacity may be installed without protection provided in subparagraph (ii) or (iii) below.

(ii) Tank capacity more than 500 gallons but less than 1,100 gallons. Storage tanks having a capacity of more than 550 gallons but less than 1,100 gallons may be installed above ground on the lowest floor of a building, provided that all portions of such tanks above the floor are completely enclosed with noncombustible construction having at least a 2-hour fire resistance rating. Weep holes 1-inch in diameter shall be provided at least every 3 feet along the bottom of the enclosure unless at least 15 inches of clearance, together with access door, is provided between the tank and the enclosure.

(iii) Tank capacity 1,100 gallons or more. Storage tanks having a capacity of 1,100 gallons or more may be installed above ground on the lowest floor of a building, provided that all portions of such tanks above the floor are completely enclosed with non-combustible construction having at least a 3-hour resistance rating. At least 15-inch clearance shall be provided over the tanks and on all sides between the tanks and the enclosure. A noncombustible access door, constructed so as to preserve the integrity of the fire resistive enclosure, shall be installed in the enclosure

above the point where the capacity of the enclosure below the door sill would be equal to the capacity of the largest tank installed. When the longest inside dimension of the enclosure exceeds 35 feet, access doors shall be installed at intervals not exceeding 12 feet. Columns, pipes, or similar obstructions may project into the required 15 inches of space within the enclosure, provided that access door or doors are so arranged that all portions of the enclosure are accessible for servicing.

(iv) Maximum tank size. The capacity of individual storage tanks in no case shall exceed 20,000 gallons.

(2) Inside of buildings, below ground

(i) Storage tanks having a capacity greater than 275 gallons may be buried inside of a building provided that the top of the tank is at least 2 feet below floor level. In lieu of 2 feet of earth over the tank, the tank may be covered by concrete flooring having the same thickness as the basement floor, but not less than 4 inches concrete meeting the requirements of Subchapter 10 of Chapter 1 of Title 27 of the Administrative Code and reinforced with 2-inch by 2-inch mesh of at least No. 20 U.S. Standard Gauge Steel Wire. Tanks shall be placed in firm soil and shall be surrounded by clean sand or well-tamped earth, free from ashes and other corrosive substances, and free from stones that will not pass through a 1-inch mesh. When necessary to prevent floating, tanks shall be securely anchored.

(ii) No tank shall be buried within 3 feet of any foundation wall or footing.

(3) Outside of building, below ground

(i) Storage tanks located outside of buildings and below ground, shall be buried with the top of the tank at least 2 feet below ground. Tanks shall be placed in firm soil and shall be surrounded by clean sand or well tamped earth, free from ashes

or other corrosive substances, and free from stones that will not pass a 1-inch mesh. When necessary to prevent floating, tanks shall be securely anchored.

(ii) No tank shall be buried within 3 feet of any foundation wall or footing.

(4) Outside building, above ground

(i) Storage tanks of a capacity greater than 275 gallons located outside of buildings above ground shall be not less than one and one-quarter (1/4) tank diameters and in no case less than 10 feet from the line of adjoining property, the nearest building or adjacent tank. The minimum clearance between individual tanks located outside of buildings above ground and the line of adjoining property which may be built upon shall be fixed by the following formula:

$$\text{M.C.} = 10 + 4 \frac{\text{G } 275}{5000}$$

Where: M.C. = minimum clearance from nearest surface of tank to adjoining property in feet.

G = capacity of tank, in gallons.

The maximum allowable capacity of tanks for storage of liquids or solvents having a flashpoint of 100 degrees Fahrenheit or higher located outside of building above ground shall be 100,000 gallons.

(ii) Tanks shall be located so as not to obstruct or interfere with any means of egress.

(iii) Each storage tank shall be protected by an embankment or dike. Such protection shall have a capacity at least 1 1/2 times the capacity of the tank so surrounded and shall be at least 4 feet high, but in no case shall the protection be higher than 1/4 the height of the tank when the height of

the tank exceeds 16 feet. Embankments or dikes shall be made of earth work with clay core, of masonry, or reinforced concrete or of steel.

Earth work embankments shall be firmly and compactly built of good earth free from stones, vegetable matter, etc., and shall have a flat section of at least 3 feet at the top and slope of at least 1 1/2 to 2 feet on all sides. Concrete, masonry or steel dikes shall be designed so as to confine safely all of the oil in the tank so surrounded. Embankments or dikes shall be continuous and unpierced, and the outside toe shall be located at least 5 feet inside of the property line, and no less than 5 feet from a driveway or parking area.

(5) Tanks located along line of subways

(i) No buried tank shall be placed within 20 feet of the outside line of a subway wall. Where an above ground tank within a building is located within the outer lines of the subway, or within 20 feet of the outside line of the subway wall, such tank shall be placed within a welded steel oil-tight pan of not less than number 18 manufacturer's standard gauge metal suitably reinforced and of capacity to contain the contents of the tank.

(ii) For the purpose of the foregoing requirement, a subway shall be deemed to include any subsurface railroad or rapid transit roadbed.

(f)(1) Installation of piping and tubing

(i) Exposed piping shall be protected against mechanical damage and shall be adequately supported with rigid metal fasteners or hangers. All pipes connected to buried tanks, except test well piping, shall be provided with double swing joints at the tank.

(ii) Only new wrought iron, steel, or brass pipe, or type K or heavier copper tubing shall be used. Metal tubing when used for conveying material shall be adequately protected.

(iii) Overflow pipes, where installed, shall not be smaller in size than the supply pipe.

(iv) Pipe shall be connected with standard fittings and tubing with fittings of listed or approved type all of the same material as the pipe, except that malleable iron fittings may be used with steel pipe. Cast iron fittings shall not be used. All threaded joints and connections shall be made tight with suitable pipe compound. Unions requiring gaskets or packing, right or left couplings and sweat fittings employing solder having a melting point of less than 1,000 F. shall not be used.

(2) Relief valves

(i) Where a shut-off valve is installed in the discharge line from a material pump, a relief valve shall be installed in the discharge line between the pump and the first shut-off valve.

(ii) Relief valves shall be set to discharge at not more than 1 1/2 times the maximum working pressure of the system. The discharge from relief valves shall be returned to the storage tank or to the supply line. There shall be no shut-off valve in the line of relief.

(3) Vent pipes

(i) A vent pipe of iron or steel, without trap, draining to the tank, shall be provided for each storage tank. The lower end of the vent pipe shall not extend more than 1 inch through the top of the storage tank. Cross-connection between a vent pipe and fill pipe is prohibited.

(ii) Where a battery of storage tanks designed to hold identical material is installed, vent pipes may be run into a main header.

(iii) Vent shall be at least 1 1/4 inch in diameter for storage tanks not exceeding 1,100 gallon capacity and at least 2 inches in diameter for storage tanks of 1,100 gallons or more.

(iv) Vent pipes shall be provided with an approved weatherproof hood having a free area of at least the pipe size area. Vent pipes shall terminate outside the building in a non-hazardous location, at least 2 feet from any building opening and not less than 2 feet nor more than 12 feet above the fill pipe terminal unless otherwise permitted by the Commissioner. If the vent pipe terminal is not visible from the fill pipe terminal location, a one-inch tell-tale line shall be connected to the tank and shall parallel the fill pipe and terminate at the fill terminal with an unthreaded end. Such tell-tale lines shall be provided with a check valve set to prevent flow of surface water to the storage tank.

(4) Fill pipes

(i) Fill pipes shall terminate outside the buildings, with the fill pipe terminal located at or above grade, at least 2 feet from any building opening and 5 feet from any subway grating at or below the level of the pipe terminal. No fill pipe shall be less than 2 inches in diameter.

(ii) Each storage tank shall be provided with a separate fill pipe, except that where a battery of tanks is installed containing identical materials, a common fill and header pipe may be installed.

(iii) Where the top of the storage tank is above the fill pipe terminal, the fill pipe shall be connected to the top of the tank and provided with a shut-off valve and swing check valve both of which shall be located at the fill pipe terminal. However, the shut-off and check valves may be installed in an accessible location inside the building at or below the level of the fill pipe terminal.

(iv) All fill pipe terminals shall be of a type identical to that approved for fuel oil service, and shall be provided with lugs for embedding concrete. In lieu of lugs, a set screw or threads to fasten the terminal to the fill pipe may be used. The outer flange of the fill pipe terminal or the seal cap shall



be permanently marked to identify contents. The fill pipe terminal shall be threaded or provided with other equivalent means to receive the seal cap. The seal cap shall be suitably slotted for receiving an opening wrench, and an oil proof gasket inserted in a groove in the fill pipe terminal shall be provided so as to make the seal cap leak-proof. A strainer shall not be required but, if used, shall be of at least 1/8-inch mesh. Where a storage system for volatile flammable oil and a storage system for liquid flashing at 100 degrees Fahrenheit or higher is to be used in the same premises, the terminal of liquid flashing 100 degrees Fahrenheit or higher storage system shall be provided with a left-headed thread and the fill pipe fitting shall be of a different size than that required for the fill pipes to the tanks containing the volatile flammable oil.

(5) Piping from transfer pump to manufacturing equipment above the lowest floor

- (i) The piping from a transfer pump to "manufacturing equipment" at levels above the lowest floor in buildings, the return piping, and vent piping shall comply with the applicable provisions of paragraphs (1), (3) and (4) of this subdivision (f) and shall be enclosed in a shaft constructed of 4 inch concrete or masonry having a 4 inch clearance from all pipe or pipe covering. Provisions shall be made for expansion in piping without the use of expansion joints.
  
- (ii) Where it is necessary to make horizontal offsets in the supply piping and pipe shafts such piping shall be enclosed in a sleeve of other piping of at least number 10 manufacturer's standard gauge steel, two sizes larger and arranged to drain into the shaft. Horizontal piping offsets shall be further enclosed in construction having a 2-hour fire resistance rating.
  
- (iii) A drain pipe shall be installed at the base of shafts enclosing the supply and overflow piping. The pipe shall lead to an open sight drain or to an open sump.

- (iv) Pipe lines for manufacturing equipment above the level of the lowest floor shall be seamless steel pipe of a weight not less than ASA schedule 40 with welded connections.
- (v) Pipe shafts shall not be penetrated by or contain other piping or ducts.
- (g) Valves and devices to control the flow of materials
  - (1) Approved leak detectors on discharge piping shall be provided for submerged or remote control pumps.
  - (2) A clearly identified remote control switch readily accessible, shall be provided on each floor to which material is pumped to shut-off the power to the pump motors.
  - (3) A visible means shall be provided for each discharge area to indicate when pump is operating.
  - (4) Pumps shall be of a type approved by Board of Standards and Appeals.
  - (5) Pressure in storage tanks for the purpose of discharging materials is prohibited.
- (h) Material level indicating devices and test wells
  - (1) All tanks located inside buildings shall be provided with a material level indicating device. Test wells shall be prohibited in tanks located inside of buildings. Unused tank openings shall be permanently sealed to prevent the removal of plugs or cover.
  - (2) Material level indicating devices shall be designed and constructed of substantial materials so that there can be no leakage of materials or vapor from the material.
  - (3) Test wells in storage tanks located outside of buildings shall be capped oil tight and kept closed when not in use.
- (i) Tests. All piping and storage tanks for materials flashing at 100 degrees Fahrenheit or higher shall be tested hydrostatically in the presence of a Fire Department representative before work is

closed in. The hydrostatic pressure shall be maintained until all joints and connections have been visually inspected, for leaks but in no case for less than one-half hour. The minimum pressure for testing tanks shall be at least 25 pounds per square inch. The piping shall be tested at 1 1/2 times maximum work pressure applicable to that part of the piping system but in no case less than 25 pounds per square inch. For storage systems for materials flashing above 300 degrees Fahrenheit contractor may submit a notarized affidavit attesting to testing of tank and piping as prescribed above, in lieu of the Fire Department witnessed test.

*Note: Retain underlining of **highlighted** text in publication of final rule.*

(m) Flammable and Combustible Liquid Storage

(1) Former Fire Department Rule 3 RCNY §20-07

**§20-07 Storage and Sale of Acetone and/or Nail Polish Remover**

\* \* \*

(b) With regard to the storage and use of raw materials, such as acetone, vegetable and essential oils, the following requirements are applicable:

(1) For 55 gallons or less of acetone:

(i) Metal storage cabinet;

(ii) Cabinet shall be against an outside building wall and remote from possible ignition sources;

(iii) Cabinet to be provided with top and bottom ventilation to outer air.

(2) For quantities exceeding 55 gallons and up to 275 gallons:

(i) Storage room. Storage room shall be separated or cut off from remainder of premises by, at least, a 1 1/2 hour fire retardant partition. Floor and ceiling should be of non-combustible construction and designed with sufficient strength and

customary safety factors and sustain maximum imposed loads. \* \* \*

(ii) The storage room shall be provided with a suitable extinguishing system. This equipment may be of the foam or CO2 type.

(iii) Ample ventilation to outer air shall be provided in storage room.

(iv) All lights, switches and other electrical apparatus shall be of the explosion proof type.

(v) Heat, if required, shall be by indirect means, hot water or steam coils to be located either at ceiling or at walls above maximum drum height. No open flame devices shall be allowed in room or near communicating opening.

\* \* \*

(xii) All electrical equipment, in or near the workroom or laboratory room, where acetone is used, shall be of the explosion proof type.\* \* \*

(xiii) All machinery shall be properly grounded.

\* \* \*

(xvi) Fixed ventilation (natural or mechanical) shall be provided in room where acetone is used.

Note 1. When the quantity of acetone exceeds 275 gallons, a buried storage system shall be required.

\* \* \*

3. Not more than one drum of acetone shall be allowed in a frame building.

\* \* \*

(2) Former Fire Department Rule 3 RCNY §21-05

**§21-05 Storage and Sale of Flammable and/or Volatile Flammable Oils in Retail Paint Stores**

In buildings other than those with dwelling facilities where not more than fifteen (15) persons congregate, the quantity of such liquids, flammable mixtures and/or volatile flammable oils, shall be limited to 55 gallons above ground, or in an approved underground tank when the amount exceeds 55 gallons.

In buildings used for a place of assembly or licensed place of public assembly, or in buildings where more than fifteen (15) persons congregate above the paint store occupancy, the quantity of such liquids shall be limited to five (5) gallons above ground in a safety can, or in an approved underground tank when the amount exceeds five (5) gallons.

\* \* \*

(3) Former Fire Department Rule 3 RCNY §28-01

**§28-01 Storage of Paints, Varnishes and Lacquers, and Similar Products in Multiple Dwellings**

\* \* \*

(b) No volatile flammable oils shall be stored.

(c) Paints, varnishes, enamels and all similar materials used for painting or coating, having a flashpoint, shall be stored in storage rooms of fireproof construction. No such storage shall be permitted in basement, cellar or sub-cellar areas of non-fireproof buildings, except in such areas which have heretofore been approved by the fire commissioner.

Storage rooms in basement or cellar occupancies having a door leading to the outer air with a maximum distance of twenty-five (25) feet from the paint room door to such door to the outer air and easily accessible by ramp or stairway to grade, may be permitted in class I fireproof buildings.

(d) The storage room shall be provided with either natural ventilation or an independent duct leading to the outer air. The ventilation shall not terminate in an enclosed court nor within twenty (20) feet of any building opening. Motors of ventilating system shall be explosion proof. Automatic sprinklers shall be provided for the storage room. Sprinklers may be connected to the house supply.

(e) The door to the paint storage room shall be fireproof and self closing. A masonry or concrete sill at least six (6) inches above the floor shall be provided at the door opening. Door shall be kept securely locked when room is not in actual use.

\* \* \*

(g) No portable electrical appliances of any kind shall be used in the storage room.

(h) All globes shall be of the vaporproof type. The electric light switch shall be located outside of the room.

(i) The door to the room shall be marked "Paint Storage Room - No Smoking" in RED letters at least 4" high.

\* \* \*

(o) The total quantity of paint material shall not exceed two hundred (200) gallons in non-fireproof multiple dwellings, except where storage in a separate fireproof exterior building.

In class I fireproof multiple dwellings, or complexes of contiguous multiple dwellings under the same ownership, two (2) gallons per apartment, but not more than two thousand (2,000) gallons storage may be permitted provided that, when storage exceeds two hundred (200) gallons, the automatic sprinkler system required for the storage room is extra hazard spacing and piping, with a fire department siamese connection, that the room is on an outside wall of the building, and that explosion venting is provided. Explosion venting provided shall be a minimum of ten (10) square feet when less than twenty (20) gallons of material having a flashpoint of under 100(degrees)F. Tag. o.c. is stored, and in accordance with NFPA Standard No. 68 (1954) when twenty (20) gallons or more of low flash material under 100 degrees F. Tag. o.c. flash) are stored. (These are in addition to all other requirements specified in these regulations).

(p) All thinning of such paints, etc. shall be prepared in said storage areas.

(q) All such paints, when not in actual use, shall be returned to said approved storage areas. All paint products shall be transported in closed containers.

(r) No spraying or dipping with such paints, etc. may be performed except as provided for in the rules of the Board of Standards and Appeals.

\* \* \*

(4) Former Fire Department Rule 3 RCNY §28-04

**§28-04 Storage and/or Use of Inks**

\* \* \*

Printing inks and lithographic inks having a flashpoint below 100°F are to be within the purview of paints, varnishes, lacquers, as to permit requirements and restrictions.

Apply paint spray rules of the Board of Standards and Appeals, **2 RCNY §18-01(f)(1)(i)-(iii)** for storage facilities.

Grounding and lighting shall be in accordance with the electrical code of the Bureau of Electrical Control. \* \* \*

Adequate means of either mechanical or natural ventilation shall be provided.

No open flames unless printing machine is equipped with an exhaust hood and mechanical vent of at least one hundred (100) linear feet per minute is provided.

\* \* \*

*Note: Retain underlining of **highlighted** text in publication of final rule.*

**§ 4839-01 Storage of Organic Peroxides in Pre-Existing Facilities**

(a) Scope. This section consolidates the New York City Fire Prevention Code and former Fire Department rules in effect on June 30, 2008 that are applicable to the design and installation of *organic peroxide* installations in *pre-existing facilities*.

(b) Definitions. Reserved

(c) General Provisions. *Pre-existing facilities* with *organic peroxide* installations the design and installation of which would not be allowed or approved under the Fire Code, but which, pursuant to FC102.3 and R102-01, may be continued with respect to such *organic peroxide* installations under the applicable laws, rules and regulations in effect prior to

the Fire Code, shall continue to comply with the provisions of such laws, rules and regulations, including former Fire Department rule 3 RCNY §27-01, until such time as such facilities may be required to comply with the Fire Code and the rules with respect to the design and installation of such organic peroxide installations.

(d) Organic Peroxides

(1) Former Fire Department Rule 3 RCNY §27-01

**§27-01 Storage, Sale or Use of Organic Peroxides Packaged for Manufacturing, Industrial or Commercial Uses**

\* \* \*

(j) Storage facilities.

\* \* \*

(2) Storage building or space shall be equipped with fast acting deluge type automatic sprinkler system. Roof of storage building shall be of light construction and suitably insulated with non-combustible insulating material. In lieu of light constructed roof, explosion venting may be provided. Ventilation to be provided for preventing excessive temperatures and to remove products of decomposition. Installation shall conform to requirements of Building (Administrative) Code and pertinent Board of Standards and Appeals resolution.

(3) Alarms shall be installed in storage building or space to indicate unsafe temperatures.

STATEMENT OF BASIS AND PURPOSE FOR CHAPTER 48 (PRE-EXISTING FACILITIES):

The chapter is has been amended to add seven sections, each of which consolidates the New York City Fire Prevention Code and existing Fire Department rules in effect on June 30, 2008 that are applicable to the design and installation of pre-existing facilities.

Section 4827-01 sets forth design and installation requirements for pre-existing wholesale drug stores and drug and chemical supply houses, and pre-existing laboratories. These requirements were set forth in Fire Prevention Code (former Administrative Code §§27-4236, 27-4237, 27-4238, 27-4242) and existing Fire Department rule 3 RCNY §15-05 for pre-existing wholesale drug stores and drug and chemical supply houses, and existing Fire Department rules 3 RCNY §§10-01 and 34-01 for pre-existing laboratories. It also sets forth the storage quantity limitations



and prohibitions for pre-existing technical establishments, pre-existing wholesale drug stores and drug and chemical supply houses, and pre-existing retail drug stores. These requirements were set forth in Fire Prevention Code (former Administrative Code §§27-4234, 27-4240 and 27-4241, and 27-4246), respectively. Section 4827-01 has been amended to conform the provisions of the rule to reflect longstanding policy of the Fire Department to enforce the provisions against all schools (up to the twelfth grade), not just public high schools.

Section 4828-01 sets forth design and installation requirements for pre-existing aerosol storage. These requirements were set forth in existing Fire Department rule 3 RCNY §32-01.

Section 4829-01 provides that pre-existing combustible fiber storage facilities on waterfront structures must comply with the requirements of the Fire Code, specifically including FC2906. The requirements set forth in existing Fire Department rule 3 RCNY §30-01 have been incorporated into the Fire Code, and pre-existing facilities in compliance with those requirements would be allowed and approved under the new Fire Code.

Section 4831-01 sets forth design and installation requirements for pre-existing tanks used for bulk storage of acids. These requirements were set forth in existing Fire Department rule 3 RCNY §1-01.

Section 4833-01 sets forth design and installation requirements for pre-existing magazines used for storage of explosives. These requirements were set forth in existing Fire Department rule 3 RCNY §14-04.

Section 4834-01 sets forth design and installation requirements for pre-existing flammable and combustible liquid storage and use, including specific flammable and combustible liquid storage and use such as petroleum, acetone/nail polish remover, distilled liquors and alcohols, oils and fats, paints, varnishes and lacquers, and inks. These requirements were set forth in Fire Prevention Code (former Administrative Code §§27-4065, 27-4066 and 27-4265) for flammable liquid manufacture, storage and use; Fire Prevention Code (former Administrative Code §§27-4069 and 4070) for combustible liquid manufacture and storage; Fire Prevention Code (former Administrative Code §27-4055) for limited storage of petroleum, shale oils and the liquid products thereof; Fire Prevention Code (former Administrative §27-4227), for distilled liquors and alcohols; Fire Prevention Code (former Administrative Code §27-4094) for paints, varnishes and lacquers; Fire Prevention Code (former Administrative Code §27-4231), and existing Fire Department rules 3 RCNY §§8-01 and 8-02 for oils and fats; Fire Prevention Code (former Administrative Code §27-4053) for bulk oil storage plants; existing Fire Department rules 3 RCNY §§ 21-06 and 21-17 for liquid tank storage systems; and existing Fire Department rules 3 RCNY §§20-07, 21-05, 28-01 and 28-04 for flammable and combustible liquid storage.

Section 4839-01 sets forth design and installation requirements for pre-existing organic peroxide storage. These requirements were set forth in existing Fire Department rule 3 RCNY §27-01.