

## Legislation Details (With Text)

<b>File #:</b>	130250	<b>Version:</b>	0	<b>Name:</b>	
<b>Type:</b>	Bill	<b>Status:</b>		ENACTED	
<b>File created:</b>	4/4/2013	<b>In control:</b>		Committee on Public Safety	
<b>On agenda:</b>		<b>Final action:</b>		5/23/2013	
<b>Title:</b>	Amending Subcode "F" of Title 4 of The Philadelphia Code, entitled "The Philadelphia Fire Code," the base code of which is the 2009 edition of the International Fire Code published by the International Code Council, with certain amendments thereto, by further amending the 2009 International Fire Code and the previous Philadelphia amendments, all under certain terms and conditions.				
<b>Sponsors:</b>	Councilmember Jones				
<b>Indexes:</b>	FIRE CODE				
<b>Code sections:</b>	SUBCODE "F" - (THE PHILADELPHIA FIRE CODE)				
<b>Attachments:</b>	1. CertifiedCopy13025000.pdf				

Date	Ver.	Action By	Action	Result	Tally
6/5/2013	0	MAYOR	SIGNED		
5/23/2013	0	CITY COUNCIL	READ AND PASSED	Pass	16:0
5/9/2013	0	CITY COUNCIL	ORDERED PLACED ON THIS DAY'S FIRST READING CALENDAR		
5/9/2013	0	CITY COUNCIL	SUSPEND THE RULES OF THE COUNCIL	Pass	
5/9/2013	0	CITY COUNCIL	ORDERED PLACED ON NEXT WEEK'S SECOND READING CALENDAR		
5/3/2013	0	Committee on Public Safety	HEARING HELD		
5/3/2013	0	Committee on Public Safety	REPORTED FAVORABLY, RULE SUSPENSION REQUESTED		
5/3/2013	0	Committee on Public Safety	HEARING NOTICES SENT		
4/26/2013	0	Committee on Public Safety	Cancellation of Scheduled Public Hearing		
4/26/2013	0	Committee on Public Safety	HEARING NOTICES SENT		
4/16/2013	0	CITY COUNCIL	Re-Referred	Pass	
4/4/2013	0	CITY COUNCIL	Introduced and Referred	Pass	

Amending Subcode "F" of Title 4 of The Philadelphia Code, entitled "The Philadelphia Fire Code," the base code of which is the 2009 edition of the International Fire Code published by the International Code Council, with certain amendments thereto, by further amending the 2009 International Fire Code and the previous Philadelphia amendments, all under certain terms and conditions.

*THE COUNCIL OF THE CITY OF PHILADELPHIA HEREBY ORDAINS:*

SECTION 1. Amend Subcode "F" of Title 4 of The Philadelphia Code as follows (matter added to The Philadelphia Code is in **bold**; matter deleted from The Philadelphia Code is in ~~strikethrough~~):

## SUBCODE "F" (THE PHILADELPHIA FIRE CODE)

Article F-1.0 Adoption of the 2009 International Fire Code, with additions, deletions and amendments.

§ F-1.1 The "2009 International Fire Code" as published by the International Code Council is hereby adopted as the Fire Code of the City of Philadelphia, with such additions, deletions and amendments as set forth in § F-1.2.

§ F-1.2 The 2009 International Fire Code, copies of which are on file with the ~~Department of Licenses and Inspections~~ **Fire Department**, is incorporated as if fully set forth herein, subject to the following additions, deletions and amendments, including errata issued by the International Code Council.

§ F-1.2.1 [Brackets] indicate matter deleted. *Italics* indicate matter added.

§ F-1.2.2 The numbers of all ~~Sections and~~ subsections **amended** shall be preceded with the prefix "F-".

§ F-1.2.3 Throughout the code, references to "International" codes or ICC codes shall be deemed to refer to the "Philadelphia" codes of the same name.

§ F-1.2.4 THE 2009 INTERNATIONAL FIRE CODE:

### CHAPTER 1

#### ADMINISTRATION

(Delete Chapter in its entirety and substitute the following)

#### SECTION ~~F-101~~ GENERAL

*F-101.1 Title. These provisions shall be known as the Philadelphia Fire Code and shall be cited as such and will be referred to herein as "this code".*

\* \* \*

***F-101.5 Codes referenced. Where this code references any of the International Codes, published by the International Code Council, it shall be assumed that the reference means the applicable Philadelphia code.***

#### SECTION ~~F-102~~ APPLICABILITY

*F-102.1 Construction and design provisions. The construction and design provisions of this code shall apply to:*

- 1. Structures, facilities and conditions arising after the adoption of this code.*
- 2. Existing structures, facilities and conditions ~~not legally in existence at the time of adoption of this code~~, **except where stated that the section applies only to new structures, facilities and conditions.***
- 3. ~~Existing structures, facilities and conditions~~ **New structures, facilities and conditions when identified in specific Sections of this code.***
- 4. ~~Existing structures, facilities and conditions which, in the opinion of the fire code official,~~*

~~constitute a distinct hazard to life or property.~~

*F-102.2 Administrative, operational and maintenance provisions. The administrative, operational and maintenance provisions of this code shall apply ~~to~~ to:*

- 1. Conditions and operations arising after the adoption of this ~~code~~ code, including, but not limited to, preparing and maintaining procedures and other records, training, installation of signs, maintenance of equipment and systems, reporting of emergency or unsafe conditions to the appropriate authority and the correction of violations of this code within the time frames permitted by the authority having jurisdiction.*
- 2. Existing conditions and ~~operations~~ operations, including, but not limited to, preparing and maintaining procedures and other records, training, installation of signs, maintenance of equipment and systems, reporting of emergency or unsafe conditions to the appropriate authority, and the correction of violations of this code within the time frames permitted by the authority having jurisdiction.*

\* \* \*

*F-102.4 Conflicts between code and other documents. Where conflicts occur between provisions of this code and referenced codes and standards, the provisions of this code shall apply.*

*F-102.5 Conflicting provisions of code. Where there is a conflict between a general requirement and a specific requirement in this code, the specific requirement shall apply. Where, in a specific case, different sections of this code specify different requirements, the most restrictive shall apply.*

\* \* \*

## SECTION ~~F~~-103 UNSAFE CONDITIONS

\* \* \*

## SECTION ~~F~~-104 GENERAL AUTHORITY AND RESPONSIBILITIES

\* \* \*

## SECTION ~~F~~-105 PERMITS

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*F-105.6.6 Dry cleaning plants. An **hazardous materials** Operational Permit is required ~~to engage in the business of dry cleaning or to change to a more hazardous cleaning solvent used in existing dry cleaning equipment. where hazardous materials, in excess of the quantities requiring a dry cleaning permit, are used at a dry cleaning plant.~~*

\* \* \*

## SECTION ~~F~~-106 MAINTENANCE

\* \* \*

SECTION F-107 BOARD OF SAFETY AND FIRE PREVENTION *APPEALS OF VIOLATIONS*

*F-107.1 Appeals and requests for variance. Violations of the Fire Code may be appealed by the owner of a property to the Fire Commissioner for relief from or time to correct the violations. To file an appeal the owner shall submit the appropriate appeal form and a check or money order in the amount specified in the Philadelphia Administrative Code within 30 days of the date of the Violation Notice. If the violation has been reviewed by Municipal Court or the Court of Common Pleas and has been sent to the Fire Commissioner for review, the owner shall comply with the time frame specified in the court's order. If an action desired by an owner would place the property in violation of this code, the owner may apply to the Fire Commissioner for a variance from code requirements. Appeals and requests for variance shall be heard by the Board of Safety and Fire Prevention. The board will make recommendations to the Fire Commissioner who will render a decision on the appeal or variance request.*

\* \* \*

SECTION 108 BOARD OF SAFETY AND FIRE PREVENTION

~~F-107.1~~ **108.1** *Board of Safety and Fire Prevention authorized. Pursuant to Section 3-100(h) and Section 3-917 of the Philadelphia Home Rule Charter, the Mayor may, upon the recommendation of the Fire Commissioner or of his/her own volition, appoint a board to act in an advisory capacity to the Fire Department. This board shall be known as the Board of Safety and Fire Prevention and shall consist of a representative of the Fire Department, a representative of the Department of Licenses and Inspections, and five other members appointed by the Mayor. One of the five shall be a qualified fire protection engineer and another shall be a qualified fire protection specialist with a background in hazardous materials or in the petroleum industry. The remaining members shall be persons who are qualified by experience and training to deliberate matters pertaining to hazards of fire, explosion, hazardous conditions, fire protection systems and life safety.*

~~F-107.2~~ **108.2** *Duties of the board. The Board of Safety and Fire Prevention shall act in an advisory capacity to the Fire Commissioner in matters of fire safety and fire prevention that may include:*

- 1. Considering appeals as set forth in the Administrative Code;*
- 2. Advising in the interpretation of this code and the regulations issued under it;*
- 3. Suggesting changes to this code and regulations issued under it;*
- 4. Suggesting standards and procedures of good fire prevention practice to supplement the provisions of this code; and*
- 5. Advising as to standards of fire safety practice in the manufacture, storage, sale, transportation and use of new materials which are combustible, flammable, explosive, toxic or which may constitute a fire*

*hazard.*

## CHAPTER 2

### DEFINITIONS

\* \* \*

#### SECTION F-202 GENERAL DEFINITIONS

\* \* \*

**{B}Residential Group R. Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an institutional Group I [or when not regulated by the International Residential Code in accordance with Section 101.2 of the International Building Code]. Residential occupancies shall include the following:**

\* \* \*

## CHAPTER 3

### GENERAL REQUIREMENTS

#### SECTION F-301 GENERAL

\* \* \*

#### SECTION F-302 DEFINITIONS

\* \* \*

#### SECTION 304 COMBUSTIBLE WASTE MATERIAL

**F-304.1.2 Vegetation.** Weeds, grass, vines or other growth that is capable of being ignited and endangering property (*exceeding 10 inches (254 mm) in height*), shall be cut down and removed by the owner or occupant of the premises. Vegetation clearance requirements in urban-wildland interface areas shall be in accordance with the International Wildland-Urban Interface Code.

\* \* \*

#### SECTION F-305 IGNITION SOURCES

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## SECTION F-307 OPEN BURNING, RECREATIONAL FIRES AND PORTABLE OUTDOOR FIREPLACES

\* \* \*

## SECTION F-308 OPEN FLAMES

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F-308.1.4 Open-flame cooking devices. Charcoal burners, *barbecue grills* and other open-flame cooking devices shall not be operated on [combustible] balconies or within 10 feet (3048 mm) of combustible construction.

Exception[s]: [1.] One- and two-family dwellings *provided that **all cooking devices are at least 5 feet from combustible walls, floors and ceilings, and LP gas (such as propane) containers used with cooking devices are at least 5 feet (1524mm) from any building openings.***

[2. Where buildings, balconies and decks are protected by an automatic sprinkler system.

3. LP-gas cooking devices having LP-gas containers with a water capacity not greater than 2-1/2 pounds (nominal 1 pound (0.454 kg) LP-gas capacity).]

F-308.1.5 Location near combustibles. Open flames such as from candles, lanterns, ***torches***, kerosene heaters and gas- fired heaters shall not be located on or near decorative material or [similar] combustible materials. *Open flame devices, with the exception of candles, shall be in accordance with Section F-305.1.*

**F-308.1.6 Open-flame devices. Torches and other devices, machines or processes liable to start or cause fire shall not be operated or used in or upon wildfire risk areas or other hazardous areas except by written approval [a permit in accordance with Section 105.6 secured] from the fire [code official] department.**

\* \* \*

## SECTION F-311 VACANT PREMISES

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## SECTION F-315 MISCELLANEOUS COMBUSTIBLE MATERIALS STORAGE

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## CHAPTER 4

### EMERGENCY PLANNING AND PREPAREDNESS

## SECTION F-401 GENERAL

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## SECTION 403 PUBLIC ASSEMBLEAGES AND EVENTS

\* \* \*

**F-403.1.1 Duties.** Fire watch personnel shall, *in addition to the duties listed in Section 901.7*, keep diligent watch for fires, obstructions to means of egress and other hazards during the time such place is open to the public or such activity is being conducted and take prompt measures for remediation of hazards, extinguishment of fires that occur and assist in the evacuation of the public from the structures.

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## SECTION ~~F-404~~ FIRE SAFETY AND EVACUATION PLANS

\* \* \*

## SECTION ~~F-408~~ USE AND OCCUPANCY-RELATED REQUIREMENTS

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## SECTION ~~F-409~~ FAMILY CHILD DAY CARE FACILITIES

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## CHAPTER 5

### FIRE SERVICE FEATURES

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## SECTION ~~F-503~~ FIRE APPARATUS ACCESS ROADS

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**F-503.2.3 Surface.** Fire apparatus roads shall be designed and maintained to support the imposed loads of fire apparatus ~~(60,000 pounds)~~ ***in accordance with fire department requirements*** and shall be surfaced so as to provide all-weather driving capabilities.

\* \* \*

## SECTION ~~F-507~~ FIRE PROTECTION WATER SUPPLIES

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*F-507.5.1.1 Number and location of private fire hydrants. Where private fire hydrants are required by this chapter, one fire hydrant is required for the first 250,000 square feet (1860 4650 m2) or fraction thereof of the gross floor area at grade (footprint) of a building, plus one fire hydrant for each additional 50,000 square feet (4650 m2) or fraction thereof of gross floor area at grade. Where a property has multiple buildings requiring fire hydrants, for those buildings with a gross floor area per building not exceeding 20,000 square feet (1860 m2), one fire hydrant is sufficient for that group of buildings provided that each exterior point of a building is within 400 feet (122 m) of a fire hydrant. The exact location of the fire hydrants shall be specified by the fire department after survey of the site or review of building plans to determine the most advantageous locations for fire fighting.*

\* \* \*

*F-507.5.7 Fire apparatus access to private fire hydrants. Private fire hydrants shall be located within 3 feet (914 mm) of a hard, all-weather surface, at least 12 feet (3657 mm) wide, capable of supporting the weight of a fire department pumper ~~at 40,000 pounds (18,160 kg)~~ **as determined by the fire department.** A clearance of at least 20 feet (6096 mm) on each side of the fire hydrant shall be maintained along the hard, all-weather surface adjoining the fire hydrant.*

\* \* \*

## SECTION 508 FIRE COMMAND CENTER

**F-508.1 General.** Where required by other sections of this code and in all buildings classified as high-rise buildings by the [International] *Philadelphia Building Code constructed, or existing and changing occupancy classification, on or after January 1, 1984*, a fire command center for fire department operations shall be provided. *Where a fire command center is required to be installed to comply with this code, it [and] shall comply with Section 508.1.1 through 508.1.5.*

\* \* \*

**F-508.1.6 Maintenance of fire command centers.** *Fire command centers required by this code, or the current or a previous edition of the Philadelphia Building Code, shall be maintained in accordance with the requirements of the code in effect at the time of construction of the fire command center.*

**F-508.1.7 Identification of fire command center.** *Doors to a fire command center shall be marked “Fire Command Center.”*

\* \* \*

## SECTION F-510 EMERGENCY RESPONDER RADIO COVERAGE

**F-510.1 Emergency responder radio coverage in buildings.** All buildings *constructed on or after January 1, 2010, and existing buildings in accordance with Section 510.3* shall have approved radio coverage for emergency responders within the building based upon the existing coverage levels of the public safety communication systems of the jurisdiction at the exterior of the building. *The radio coverage shall be approved by the fire department.* This section shall not require improvement of the existing public safety communication systems.

Exceptions:

1. Where approved by the [building official and the] fire [code official] *department*, a **two-way fire department** wired communication system [in accordance with Section 907.2.13.2] shall be permitted to be installed [or] **and** maintained in lieu of an approved **emergency responder** radio coverage system.

2. Where it is determined by the fire [code official] *department* that the **emergency responder** radio coverage system is not needed.

3. *In facilities where emergency responder radio coverage is required and such systems, components or equipment could have a negative impact on the normal operations of that facility, the fire department shall have the authority to accept an automatically activated emergency responder radio coverage system.*



***F-510.2 Fire department review. During the design stage of an emergency responder radio coverage system, the system design shall be reviewed with the fire department to ensure it will be compatible with the frequencies used by the fire department's communications equipment.***

\* \* \*

***F-510.3 Emergency responder radio coverage in existing buildings. [Existing buildings] Buildings existing prior to January 1, 2010, that do not have approved radio coverage for emergency responders within the building shall be equipped with such coverage according to one of the following:***

1. Wherever existing wired communication system cannot be repaired or is being replaced, or where not approved in accordance with Section 510.1, Exceptions [1.] ***1, 2 or 3.***
2. Within a time frame established by the [adopting authority] ***fire department.***

***F-510.4 Technical requirements. Systems, components, and equipment required to provide emergency responder radio coverage systems (also known as bi-directional antenna systems) shall comply with Section 510.4.1 through 510.4.2.5.***

***F-510.[2]4.1 Radio signal strength. The building shall be considered to have acceptable emergency responder radio coverage when signal strength measurements in 95 percent of all areas on each floor of the building meet the signal strength requirements of Sections 510.[2]4.1 and 510.[2]4.2.***

***F-510.[2.1]4.1.1 Minimum signal strength into the building. A minimum signal strength of -95 decibels relative to one milliwatt (dBm) shall be receivable within the building.***

***F-510.[2.2]4.1.2 Minimum signal strength out of the building. A minimum signal strength of [-100] -95 dBm shall be received by the agency's radio system when transmitted from within the building.***

***F-510.4.1.3 Delivered audio quality. The emergency responder radio coverage system shall have a delivered audio quality of 3.0 (speech understandable with slight effort) or above in accordance with TIA TSB 88.1-C (Telecommunications Industry Association, Telecommunications System Bulletin #88.1-C, entitled Wireless Communications Systems Performance in Noise-Limited Situations).***

***F-510.4.2 System design. The emergency responder radio coverage system shall be designed in accordance with Sections 510.4.2.1 through 510.4.2.5.***

***F-510.4.2.1 Amplification systems allowed. Buildings and structures that cannot support the required level of radio coverage shall be equipped with a radiating cable system, a distributed antenna system with Federal Communications Commission (FCC)-certified signal boosters or other system approved by the fire department in order to achieve the required adequate radio coverage.***

***F-510.4.2.2 Technical criteria. The fire department shall maintain a document providing the specific technical information and requirements for the emergency responder radio coverage system. This document shall contain, but not be limited to, the various frequencies required, the location of radio sites, the effective radiated power of radio sites and other supporting technical information.***

***F-510.4.2.2.1 Survivability of equipment.*** All supply circuits necessary for the operation of the emergency responder radio coverage system equipment shall be protected from fire until they enter the equipment served. All antenna circuits and branch wiring leaving the emergency responder radio coverage system equipment shall be protected from fire until they enter the floor area served. Protection shall be by one of the following methods:

1. Two-hour fire resistance rated circuit integrity (CI) cable;
2. A two-hour fire resistance rated cable system (electrical circuit protective system);
3. Two-hour fire resistance rated construction enclosing the equipment and wiring;
4. A performance-based alternative method approved by the fire code official; or
5. A sprinkler system installed throughout the building, designed and installed in accordance with NFPA 13; and the interconnecting wiring or cable used for the operation of the fire alarm system notification appliances shall be installed in metal raceways in accordance with Article 70 of NFPA 72 and Section 907.5 of the Philadelphia Building Code.

***F-510.4.2.3 Secondary power.*** Emergency responder radio coverage systems shall be provided with an approved secondary source of power. The secondary power supply shall be capable of operating the emergency responder radio coverage systems for a period of 24 hours. When primary power is lost, the power supply to the emergency responder radio coverage system shall automatically transfer to the secondary power supply.

***Exception:*** Systems installed prior to May 1, 2013, that have a 12-hour secondary source of power .

***F-510.4.2.4 Signal booster requirements.*** If used, signal boosters shall meet the following requirements:

1. All signal booster components shall be contained in a NEMA4-type waterproof cabinet. The exterior of the cabinet shall be labeled “Fire Department radio repeater system” and shall contain the name and telephone number of the system service provider.
2. The battery system shall be contained in a NEMA4-type waterproof cabinet.
3. The system shall include automatic alarming of malfunctions of the signal booster and battery system. Any resulting trouble alarm shall be automatically transmitted to an approved central station or proprietary supervising station as defined in NFPA 72 or, when approved by the fire department, shall sound an audible signal at a constantly attended location.
4. Equipment shall have FCC certification prior to installation.

***F-510.4.2.5 Additional frequencies and change of frequencies.*** The emergency responder radio coverage system shall be capable of modification or expansion in the event frequency changes are required by the FCC or additional frequencies are made available by the FCC.

***F-510.5 Installation requirements.*** The installation of the public safety radio coverage system shall be in accordance with Sections 510.5.1 through 510.5.4.

***F-510.5.1 Approval prior to installation. Amplification systems capable of operating on frequencies licensed to any public safety agency by the FCC shall not be installed without prior coordination and approval of the fire department.***

***F-510.5.2 Minimum qualifications of personnel. The minimum qualifications of the system designer and lead installation personnel shall include:***

- 1. A valid FCC-issued radio operators License, or***
- 2. Certification of in-building system training issued by a nationally recognized organization or school or a certificate issued by the manufacturer of the equipment being installed.***

***F-510.5.3 Acceptance test procedure. When an emergency responder radio coverage system is required, and upon completion of installation, the building owner shall have the radio system tested to ensure that two-way coverage on each floor of the building is a minimum of 95 percent. The test procedure shall be conducted as follows:***

- 1. Each floor of the building shall be divided into a grid of 20 approximately equal areas.***
- 2. The test shall be conducted using a calibrated (within the last 12 months) portable radio of the latest brand and model used by the agency talking through the agency's radio communications system.***
- 3. Failure of a maximum of 2 nonadjacent test areas shall not result in a failure of the test.***
- 4. In the event that 3 of the test areas fail the test, in order to be more statistically accurate, the floor shall be divided into 40 equal test areas. Failure of a maximum of 4 nonadjacent test areas shall not result in failure of the test. If the system fails the 40-area test, the system shall be altered to meet the 90 percent coverage requirement.***
- 5. A test location approximately in the center of each test area shall be selected for the test, with the radio enabled to verify two-way communications to and from the outside of the building through the public agency's radio communications system. Once the test location has been selected, that location shall represent the entire test area. Failure in the selected test location shall be considered failure of the test area. Additional test locations shall not be permitted.***
- 6. The gain values of all amplifiers shall be measured and the test measurement results shall be kept on file with the building owner so that the measurements can be verified during annual tests. In the event that the measurement results become lost, the building owner shall be required to rerun the acceptance test to reestablish the gain values.***
- 7. As part of the installation a spectrum analyzer or other suitable test equipment shall be utilized to insure spurious oscillations are not being generated by the subject signal booster. This test shall be conducted at time of installation and subsequent annual inspections.***
- 8. Upon completion of testing a test report, indicating compliance with Section 510.4 and 510.5, shall be provided to the fire code official and the fire department. RF plots indicating the initial assessment of radio coverage and the enhanced coverage shall be included in the test report.***

*F-510.5.3.1 Operational testing by the fire department. Upon completion of the acceptance testing and verification provided to the fire department documenting compliance with Section 510.4 and 510.5, the fire department may conduct operational testing in the building with fire department personnel with portable radios transmitting to each other and to the fire department's Fire Communications Center. A record of this testing shall be prepared indicating areas of failure. Areas not meeting the requirements of Sections 510.4 and 510.5 shall be corrected.*

*F-510.5.4 FCC compliance. The emergency responder radio coverage system installation and components shall also comply with all applicable federal regulations, including, but not limited to, FCC 47 CFR 90.219.*

*F-510.6 Maintenance. The emergency responder radio coverage system shall be maintained in accordance with Sections 510.6.1 through 510.6.3.*

*F-510.6.1 Testing and proof of compliance. The emergency responder radio coverage system shall be inspected and tested annually or whenever structural changes occur, including additions or remodels that could materially change the original field performance tests. Testing shall consist of the following:*

- 1. In-building coverage test as described in Sections 510.5.3 and 510.5.4.*
- 2. Signal boosters shall be tested to ensure that the gain is the same as it was upon initial installation and acceptance.*
- 3. Backup batteries and power supplies shall be tested under load of a period of one hour to verify that they will properly operate during an actual power outage. If within one-hour test period the battery exhibits symptoms of failure, the test shall be extended for additional one-hour periods until the integrity of the battery can be determined.*
- 4. All other active components shall be checked to verify operation within the manufacturer's specifications.*
- 5. At the conclusion of the testing, a report verifying compliance with this section shall be submitted to the fire department.*

*F-510.6.2 Additional frequencies. The building owner shall modify or expand the emergency responder radio coverage system at his or her expense in the event frequency changes are required by the FCC or additional frequencies are made available by the FCC. Prior approval of a public safety radio coverage system on previous frequencies does not exempt this section.*

*F-510.6.3 Field testing. Agency personnel shall have the right to enter onto the property at any reasonable time to conduct field testing to verify the required level of radio coverage.*

*F-510.6.4 System out of service. The fire department shall be notified in writing (email is acceptable) when an emergency responder radio coverage system is out of service and when it is returned to service. Systems out of service shall be repaired and returned to service as soon as possible.*

## CHAPTER 6

### BUILDING SERVICES AND SYSTEMS

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#### SECTION 601 GENERAL

**F-601.2 Permits.** Permits shall be obtained for refrigeration systems and battery systems as set forth in [Sections 105.6 and 105.7] *the Philadelphia Mechanical Code*.

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#### SECTION ~~F-603 FUEL-FIRE~~ FIRED APPLIANCES

\* \* \*

**F-603.1 Installation.** [The installation of] *New installations of* nonportable fuel gas appliances and systems shall comply with the [International] *Philadelphia Fuel Gas Code*. All other *new installations of* fuel-fired appliances, other than internal combustion engines, oil lamps and portable devices such as blow torches, melting pots and weed burners, shall comply with this section and the [International] *Philadelphia Mechanical Code*.

**F-603.1.1 Manufacturer's instructions.** The *new* installation shall be made in accordance with the manufacturer's instructions and applicable federal, state and local rules and regulations. Where it becomes necessary to change, modify or alter a manufacturer's instructions in any way, written approval shall first be obtained from the manufacturer.

**F-603.1.2 Approval.** The design, construction and installation of *new installations of* fuel-fired appliances shall be in accordance with the [International] *Philadelphia Fuel Gas Code* and the [International] *Philadelphia Mechanical Code*.

\* \* \*

**F-603.1.7 Clearances.** Working clearances between *new installations of* oil-fired appliances and electrical panelboards and equipment shall be in accordance with NFPA 70. Clearances between *new installations of* oil-fired equipment and oil supply tanks shall be in accordance with NFPA 31. *Clearances for existing equipment shall be in accordance with the NFPA standards in effect at the time of installation.*

\* \* \*

**[B, M, FG] F-603.2 Chimneys.** *New installations of* [M]masonry chimneys shall be constructed in accordance with the [International] *Philadelphia Building Code*. Factory-built chimneys shall be installed in accordance with the [International] *Philadelphia Mechanical Code*. *New installations of* [M]metal chimneys shall be constructed and installed in accordance with NFPA 211.

**F-603.3 Fuel oil storage systems.** *New installations of* [F]fuel oil storage systems shall be installed in accordance with this code. Fuel oil piping systems shall be installed in accordance with the [International] *Philadelphia Mechanical Code*.

\* \* \*

**F-603.5.2 Heating appliance installation and maintenance.** Heating appliances shall be [installed and] maintained in accordance with the manufacturer's instructions,. *New installations of heating appliances shall be installed in accordance with the manufacturer's instructions, the [International] Philadelphia Building Code, the [International] Philadelphia Mechanical Code, the [International] Philadelphia Fuel Gas Code and NFPA 70.*

\* \* \*

**F-603.8 Incinerators.** *New installations of [C]commercial, industrial and residential type incinerators and chimneys shall be constructed in accordance with the [International] Philadelphia Building Code, the [International] Philadelphia Fuel Gas Code and the [International] Philadelphia Mechanical Code. Existing incinerators shall be maintained in accordance with the manufacturer's instructions and this section.*

\* \* \*

## SECTION F-604 EMERGENCY AND STANDBY POWER SYSTEMS

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**F-604.2 Where required.** *In new construction and change of occupancy classification, [E]emergency and standby power systems shall be provided where required by Sections 604.2.1 through 604.2.18.4.*

\* \* \*

**F-604.3 Maintenance.** Emergency and standby power systems shall be maintained and tested in accordance with *Section 915, NFPA 110 and NFPA 111* such that the system is capable of supplying service within the time specified for the type and duration required.

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## SECTION 605 ELECTRICAL EQUIPMENT, WIRING AND HAZARDS

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**F-605.11 Solar Photovoltaic power systems.** *Solar photovoltaic power systems shall be maintained in accordance with the manufacturer's maintenance instructions and Sections 605.11.1.1 through 605.11.1.3.*

**F-605.11.1 Identification marking of equipment.** *Marking is required on interior and exterior direct-current (DC) conduit, enclosures, raceways, cable assemblies, junction boxes, combiner boxes and disconnects to identify that the equipment is part of a solar photovoltaic power system. The marking shall be reflective, weather resistant and suitable for the environment. Markings shall have all letters capitalized with a minimum height of 3/8 inch (9.5mm) white on red background. The marking shall have the words "WARNING: PHOTOVOLTAIC POWER SOURCE."*

**F-605.11.2. Clearance for ground-mounted photovoltaic arrays.** *A clearance of 10 feet shall be maintained between ground-mounted photovoltaic panel arrays and brush or combustible storage.*

***F-605.11.3 Fire department notification. Owners of solar photovoltaic power systems shall notify the fire department when a system is installed or removed, providing the address of the property and the location on the property of the system.***

## **SECTION 606 MECHANICAL REFRIGERATION**

***[M] F-606.1 Scope. New installations of [R]refrigeration systems shall be installed in accordance with the [International] Philadelphia Mechanical Code. Systems shall be maintained in accordance with Section 606.***

\* \* \*

## **SECTION F-607 ELEVATORS [RECALL AND MAINTENANCE]**

***F-607.1 [Emergency operation] Elevators. [Existing] [e]Elevators [with a travel distance of 25 feet (7620 mm) or more] shall comply with the requirements of this section. [in Chapter 46. New elevators shall be provided with Phase I emergency recall operation and Phase II emergency in-car operation in accordance with ASME A17.1.]***

***[B]F-607.2 Emergency signs. An approved pictorial sign of a standardized design, as indicated in Appendix K, shall be posted adjacent to each elevator call station on all floors instructing occupants to use the exit stairways and not to use the elevators in case of fire. The sign shall read: IN FIRE EMERGENCY, DO NOT USE ELEVATOR. USE EXIT STAIRS (or FIRE STAIRS). The emergency sign shall not be required for elevators that are part of an accessible means of egress [complying with Section 1007.4].***

***F-607.3 Fire service access elevator lobbies. Where fire service access elevators have been installed, [are required by Section 3007 of the International Building Code,] fire service access elevator lobbies shall be maintained free of storage and furniture.***

\* \* \*

## **SECTION 608 STATIONARY STORAGE BATTERY SYSTEMS**

***F-608.1 Scope. New installations of [S]stationary storage battery systems having an electrolyte capacity of more than 50 gallons (189 L) for flooded lead-acid, nickel cadmium (Ni-Cd) and valve-regulated lead-acid (VRLA), or 1,000 pounds (454 kg) for lithium-ion and lithium metal polymer, used for facility standby power, emergency power or uninterrupted power supplies shall comply with this section and Table 608.1. Existing systems having an electrolyte capacity of more than the above quantities shall comply with Section 608.5 through Section 608.6.1 and Section 608.6.3 through Section 608.7.2.***

\* \* \*

## **SECTION 609 COMMERCIAL KITCHEN HOODS**

***[M] F-609.1 General. New installations of [C]commercial kitchen exhaust hoods shall comply with the requirements of the Philadelphia [International] Mechanical Code.***

***[M] F-609.2 Where required. A Type I hood shall be installed at or above all new and existing commercial cooking appliances and domestic cooking appliances used for commercial purposes that***

produce grease vapors.

\* \* \*

**F-609.3.4 Extinguishing system service.** Automatic fire-extinguishing systems protecting commercial cooking systems shall be serviced as required by Section 904.11.[6] 3.

## CHAPTER 7

### FIRE-RESISTANCE-RATED CONSTRUCTION

#### SECTION 701 GENERAL

**F-701.1 Scope.** The provisions of this chapter shall specify the requirements for and maintenance of fire-resistance-rated construction *in existing buildings*. New buildings shall comply with the *Philadelphia [International] Building Code*.

\* \* \*

#### SECTION ~~F~~-703 FIRE-RESISTANCE-RATED CONSTRUCTION

\* \* \*

#### SECTION 704 FLOOR OPENINGS AND SHAFTS

**F-704.1 Vertical shaft [E]enclosures.** Interior vertical shafts, including but not limited to stairways, elevator hoistways, service and utility shafts, that connect two or more stories of a building shall be enclosed or protected as required *by this section* [in Chapter 46]. New floor openings in existing buildings shall comply with the *Philadelphia [International] Building Code*. (*Note: The requirements of this section are duplicated in Section 1012.1, which also relates to vertical enclosures.*)

**F-704.1.1 Group I occupancies.** In Group I occupancies, interior vertical openings connecting 2 or more stories shall be protected with 1-hour fire-resistance-rated construction.

**F-704.1.2 Three stories.** In other than Group I occupancies, interior vertical openings connecting 3 stories shall be protected by either 1-hour fire-resistance-rated construction or an automatic sprinkler system installed throughout the building.

**Exceptions:**

- 1. Vertical opening protection is not required for Group R-3 occupancies.**
- 2. Vertical opening protection is not required for open parking garages and ramps.**
- 3. Vertical opening protection is not required for escalators provided they are in accordance with Section 704.1.5, 704.1.6 or 704.1.7.**

**F-704.1.3 More than three stories.** In other than Group I occupancies, interior vertical openings



*connecting more than 3 stories shall be protected by 1-hour fire-resistance-rated construction.*

*Exceptions:*

- 1. Vertical opening protection is not required for Group R-3 occupancies.*
- 2. Vertical opening protection is not required for open parking garages and ramps.*
- 3. Vertical opening protection is not required for escalators provided they are in accordance with Section 704.1.5, 704.1.6 or 704.1.7.*

*F-704.1.4 Atriums and covered malls. In other than Group I occupancies, interior vertical openings in a covered mall building or a building with an atrium either shall be protected by 1-hour fire-resistance-rated construction, or an automatic sprinkler system shall be installed throughout the building.*

*Exceptions:*

- 1. Vertical opening protection is not required for Group R-3 occupancies.*
- 2. Vertical opening protection is not required for open parking garages and ramps.*

*F-704.1.5 Escalators in Group B and M occupancies. Escalators creating vertical openings connecting any number of stories shall be protected by either 1-hour fire-resistance-rated construction or an automatic sprinkler system installed throughout the building, a draft curtain at least 18 inches (457 mm) in depth, and closely spaced sprinklers around the perimeter of the escalator opening.*

*F-704.1.6 Escalators connecting four or fewer stories. In other than Group B and M occupancies, escalators creating vertical openings connecting four or fewer stories shall either be protected by 1-hour fire-resistance-rated construction, or an automatic sprinkler system shall be installed throughout the building, a draft curtain at least 18 inches in depth (457 mm) and closely spaced sprinklers around the perimeter of the escalator opening.*

*F-704.1.7 Escalators connecting more than four stories. In other than Group B and M occupancies, escalators creating vertical openings connecting five or more stories shall be protected by 1-hour fire-resistance-rated construction.*

*F-704.1.8 Shaft penetrations. Penetrations in shafts shall be sealed with a fire stopping material to maintain the fire resistance rating of the shaft enclosure.*

\* \* \*

## CHAPTER 8

### INTERIOR FINISH, DECORATIVE MATERIALS AND FURNISHINGS

\* \* \*

SECTION F-805 UPHOLSTERED FURNITURE AND MATTRESSES IN NEW AND EXISTING BUILDINGS

\* \* \*

SECTION F-806 DECORATIVE VEGETATION IN NEW AND EXISTING BUILDINGS

\* \* \*

CHAPTER 9

FIRE PROTECTION SYSTEMS

SECTION F-901 GENERAL

**F-901.1 Scope.** The provisions of this chapter shall specify where fire protection systems are required *in existing buildings* and shall apply to the design, installation, inspection, operation, testing and maintenance of all fire protection systems.

\* \* \*

**F-901.4 Installation and maintenance.** Fire Protection systems shall be maintained in accordance with the original installation standards for that system. Required systems shall be extended, altered or augmented as necessary to maintain and continue protection whenever the building is altered, remodeled or added to. Alterations to fire protection systems shall be done in accordance with applicable standards.

**F-901.4.1 Required fire protection systems.** Fire protection systems required by this code [or the International Building Code] shall be installed, repaired, operated, tested and maintained in accordance with this code *and the appropriate section of Chapter 9 of the Philadelphia Building Code. Where there is a conflict between this code and the Philadelphia Building Code, this code shall be followed.*

**F-901.4.2 Nonrequired fire protection systems.** Any fire protection system or portion thereof not required by this code or the [International] *Philadelphia Building Code* shall be allowed to be furnished for partial or complete protection provided such installed system meets the requirements of this code and the [International] *Philadelphia Building Code*.

\* \* \*

**F-901.4.5 Tagging of equipment installed or serviced.** *A tag shall be attached to each fire alarm system, automatic fire extinguishing system and standpipe system that is installed, repaired or serviced. The tag shall indicate the date of the work and the name, address and telephone number of the person or company that performed the work.*

**F-901.4.6 Maintaining fire protection equipment installed.** *The provisions of this chapter shall not be construed to allow the elimination or reduction of fire protection systems or equipment or a reduction in the level of fire safety where systems or equipment were installed in accordance with the current or a previous edition of the Philadelphia Building Code.*

\* \* \*

F-901.7 Systems out of service. Where a required fire protection system is out of service, the fire department [and the fire code official] shall be notified immediately *in accordance with, and under conditions specified in Section F-107.4.1 6.* [and, w] Where required by the fire code official, the building shall either be evacuated or an approved fire watch shall be provided for all occupants left unprotected by the shut down until the fire protection system has been returned to service.

\* \* \*

***F-901.7.2 [Tagging required] Identification of fire protection equipment and systems out of service.*** A tag shall be used to indicate that a system, or portion thereof, has been removed from service. *If the system out of service is a sprinkler or standpipe system, a sign stating "System out of service" shall be placed at the fire department connections.*

\* \* \*

*F-901.10 Certification and licensing. No person shall install, alter, repair, service or test fire alarm systems, automatic fire extinguishing systems or standpipe systems unless that person is certified or licensed as required by the Philadelphia Code and the Philadelphia Administrative Code, this code and the regulations issued pursuant thereto.*

\* \* \*

***F-901.11 Monitoring of fire protection equipment.*** Fire alarm systems and automatic fire extinguishing systems in existing buildings and structures shall be monitored in accordance with this section. Alarm, supervisory and trouble signals shall be distinctly different and shall be automatically transmitted to an approved supervising station or, when approved by the fire department, shall sound an audible signal at a constantly attended location.

***F-901.11.1 Monitoring of fire alarm systems.*** In buildings constructed on or after January 1, 2004, fire alarm systems shall be monitored in accordance with the Philadelphia Building Code in effect at the time of construction, but at a minimum in accordance with this section. In buildings constructed prior to January 1, 2004, containing a Group I or H occupancy or high-rise buildings, the fire alarm system shall be monitored in accordance with this section.

***F-901.11.2 Monitoring of fire extinguishing systems.*** Automatic fire extinguishing systems installed on or after March 1, 1991, and automatic fire extinguishing systems installed in Group H and I occupancies and high-rise buildings prior to March 1, 1991, shall be monitored in accordance with the Philadelphia Building Code in effect at the time of installation, but at a minimum in accordance with this section.

***F-901.12 Testing and maintenance.*** Testing and maintenance of fire protection systems shall be in accordance with Sections 901 and 915. Testing and maintenance of alternative automatic fire extinguishing systems, including commercial cooking appliance automatic fire extinguishing systems, shall also be in accordance with Section 904.

\* \* \*

## SECTION F-903 AUTOMATIC SPRINKLER SYSTEMS

~~*F-903.2.11.1.1 Acceptable coverings for openings in windowless stories. Materials for coverings of*~~

~~openings in windowless stories that will not impede fire department fire fighting and rescue are as follows:~~

~~1. Door openings—doors of metal or wood.~~

~~2. Window and other openings:~~

~~Wood not exceeding 3/4 inches in thickness.~~

~~Glass, Plexiglas, fiberglass or plastic not exceeding 1/4 inches in thickness.~~

~~Metal sheeting not exceeding 1/8 inches in thickness.~~

~~\* \* \*~~

~~F-903.3.7 Fire department connections. The location of fire department connections shall be approved by the fire [code official] department and shall be in accordance with Section F-912.~~

~~\* \* \*~~

~~F-903.6.3 Other existing occupancies. Other existing occupancies and buildings shall have automatic sprinkler systems installed in accordance with F-4603.4.~~

~~\* \* \*~~

**(Delete Section in its entirety and substitute the following)**

**903.1 General. Automatic sprinkler systems shall comply with this section.**

**903.1.1 Alternative protection. Alternative automatic fire-extinguishing systems complying with Section 904 shall be permitted in lieu of automatic sprinkler protection where recognized by the applicable standard and approved by the fire code official.**

**F-903.2 Where required. Approved automatic sprinkler systems in existing buildings and structures shall be provided in the locations described in Sections 903.2.1 through 903.2.9. Where a system is required to be installed to comply with this section it shall be installed in accordance with this section and Section 903 of the Philadelphia Building Code.**

**F-903.2.1 Pyroxylin plastics. An automatic sprinkler system shall be provided throughout existing buildings where cellulose nitrate film or pyroxylin plastics are manufactured, stored or handled in quantities exceeding 100 pounds (45 kg). Vaults located within buildings for the storage of raw pyroxylin shall be protected with an approved automatic sprinkler system capable of discharging 1.66 gallons per minute per square foot (68 L/min/m<sup>2</sup>) over the area of the vault.**

**F-903.2.2 Basements without openings. Basements in existing buildings exceeding 2500 square feet (232 m<sup>2</sup>) without openings meeting the requirements of this section shall be equipped with an automatic sprinkler system.**

***Exceptions:***

- 1. Basements containing no occupancy or storage, excluding permanently installed building service equipment, but not excluding oil cooled electrical equipment.***
- 2. Group R-3 and Group U occupancies.***
- 3. Basements with openings meeting one of the following conditions:***

***3.1 Doorway openings below grade that lead directly to ground level by an exterior stairway or outside ramp. The door openings shall be located in each 50 linear feet (15 240 mm), or fraction thereof, of exterior wall in the story on at least one side. The required openings shall be distributed such that the linear distance between adjacent openings does not exceed 50 feet (15 240mm), and all portions of the basement are located within 75 feet (22 860 mm) of a door opening.***

***3.2 Openings entirely above the adjoining ground level totaling at least 20 square feet (1.86 m<sup>2</sup>) in each 50 linear feet (15 240 mm), or fraction thereof, of the exterior wall in the story on at least one side. The required openings shall be distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm) and all portions of the basement are located within 75 feet (22 860 mm) of n opening. The openings shall have a minimum dimension of not less than 30 inches (762 mm).***

***F-903.2.2.1 Accessible basement openings. Basement openings shall be accessible to the fire department from the exterior and shall not be obstructed in a manner that will impede fire fighting or rescue operations from the exterior. Materials permitted to be used to cover openings that will not impede fire department fire fighting and rescue are as follows:***

- 1. Doorway openings with doors of metal or wood.***
- 2. Doorway or other openings covered by any of the following materials:***

***2.1 Wood not exceeding ¾ inches (1905 mm) in thickness.***

***2.2 Glass, Plexiglas, fiberglass or plastic not exceeding ¼ inch (6 mm) in thickness.***

***2.3 Metal sheeting not exceeding 1/8 inch (3 mm) in thickness.***

***F-903.2.3 High-hazard occupancies. An automatic fire extinguishing system shall be installed throughout existing high-hazard occupancies.***

***F-903.2.4 High-rise buildings. An automatic fire extinguishing system shall be installed throughout***

*existing high-rise buildings.*

*Exception: Portions of high-rise buildings occupied by Group R-2 occupancies without a change in occupancy since December 18, 1991(Bill 1466).*

***F-903.2.4.1 High-rise Group R-2 occupancies. An automatic fire extinguishing system shall be installed in the following areas of existing Group R-2 occupancies in the portions of the high-rise building to which the requirements of Section 903.2.4 do not apply:***

- 1. Basements in accordance with Section 903.2.2.***
- 2. Rooms used for storage where the floor area exceeds 120 square feet (11 m<sup>2</sup>).***
- 3. Trash and incinerator chutes and rooms.***

***Exception to Item 3: In buildings where an automatic fire extinguishing system is not required throughout the building and where the trash chute access room or compartment is completely enclosed by fire barriers having a fire resistance rating of not less than one hour and is not used for the temporary or permanent storage of combustible materials, the automatic fire extinguishing system is not required in the access room or compartment.***

***F-903.2.5 Group I-2. An automatic sprinkler system shall be provided throughout existing Group I-2 fire areas. The sprinkler system shall be provided throughout the floor where the Group I-2 occupancy is located, and in all floors between the Group I-2 occupancy and the level of exit discharge.***

***F-903.2.6 Group I-4 child care facilities. An automatic fire-extinguishing system shall be installed throughout existing Group I-4 child care facilities.***

***Exception: Group I-4 child care facilities legally in existence prior to January 1, 1984, where all children less than 2½ years of age are kept on the level of exit discharge.***

***F-903.2.7 Hose threads. Fire hose threads and fittings used in connection with automatic sprinkler systems shall be as prescribed by the fire department.***

***F-903.2.8 Fire department connections for sprinkler systems. Fire department connections for sprinkler systems shall be in accordance with Section 912.***

***F-903.3 Installation requirements of sprinkler systems. Automatic sprinkler systems required to be installed to comply with this code shall be designed and installed in accordance with Sections 903.3.1 and 903.3.1.1.***

***F-903.3.1 Standards. Sprinkler systems shall be designed and installed in accordance with Section 903.3.1.1.***

***F-903.3.1.1 NFPA 13 sprinkler system. Where the provisions of this code require that a building or portion thereof be equipped throughout with an automatic sprinkler system in accordance with this section, sprinklers shall be installed throughout in accordance with NFPA 13.***

***Exception: Other types of automatic sprinkler systems or automatic suppression systems may be***

*installed as permitted by Chapter 9 of the Philadelphia Building Code.*

## **SECTION 904 ALTERNATIVE AUTOMATIC FIRE-EXTINGUISHING SYSTEMS**

**F-904.1 General.** Automatic fire-extinguishing systems, other than automatic sprinkler systems, shall be *in accordance with this section* [designed, installed, inspected, tested and maintained in accordance with the provisions of this section and the applicable referenced standards].

**F-904.2 [Where required] Approval of alternative system.** Automatic fire-extinguishing systems installed as an alternative to the required automatic sprinkler systems of Section 903 shall be approved by the fire code official. Automatic fire-extinguishing systems shall not be considered alternatives for the purposes of exceptions or reductions allowed by other requirements of this code.

**[904.2.1 Commercial hood and duct systems.** Each required commercial kitchen exhaust hood and duct system required by Section 609 to have a Type I hood shall be protected with an approved automatic fire-extinguishing system installed in accordance with this code.

**904.3 Installation.** Automatic fire-extinguishing systems shall be installed in accordance with this section.

**904.3.1 Electrical wiring.** Electrical wiring shall be in accordance with NFPA 70.

**904.3.2 Actuation.** Automatic fire-extinguishing systems shall be automatically actuated and provided with a manual means of actuation in accordance with Section 904.11.1.

**904.3.3 System interlocking.** Automatic equipment interlocks with fuel shutoffs, ventilation controls, door closers, window shutters, conveyor openings, smoke and heat vents, and other features necessary for proper operation of the fire-extinguishing system shall be provided as required by the design and installation standard utilized for the hazard.

**904.3.4 Alarms and warning signs.** Where alarms are required to indicate the operation of automatic extinguishing systems, distinctive audible, visible alarms and warning signs shall be provided to warn of pending agent discharge. Where exposure to automatic-extinguishing agents poses a hazard to persons and a delay is required to ensure the evacuation of occupants before agent discharge, a separate warning signal shall be provided to alert occupants once agent discharge has begun. Audible signals shall be in accordance with Section 907.6.2.

**904.3.5 Monitoring.** Where a building fire alarm system is installed, automatic fire-extinguishing systems shall be monitored by the building fire alarm system in accordance with NFPA 72.

**904.4 Inspection and testing.** Automatic fire-extinguishing systems shall be inspected and tested in accordance with the provisions of this section prior to acceptance.

**904.4.1 Inspection.** Prior to conducting final acceptance tests, the following items shall be inspected:

1. Hazard specification for consistency with design hazard.
2. Type, location and spacing of automatic- and manual-initiating devices.
3. Size, placement and position of nozzles or discharge orifices.
4. Location and identification of audible and visible alarm devices.
5. Identification of devices with proper designations.
6. Operating instructions.

**904.4.2 Alarm testing.** Notification appliances, connections to fire alarm systems, and connections to approved supervising stations shall be tested in accordance with this section and Section 907 to verify proper operation.

**904.4.2.1 Audible and visible signals.** The audibility and visibility of notification appliances signaling agent discharge or system operation, where required, shall be verified.

**904.4.3 Monitor testing.** Connections to protected premises and supervising station fire alarm systems shall be tested to verify proper identification and retransmission of alarms from automatic fire-extinguishing systems.]

*F-904.3 Design and Installation. Automatic fire-extinguishing systems installed as an alternative to automatic sprinkler systems shall be designed and installed in accordance with Section 904 of the Philadelphia Building Code and the applicable referenced standards.*

*F-904.4 Inspection, testing and maintenance. Automatic fire-extinguishing systems shall be inspected, tested and maintained in accordance with the provisions of this chapter (Sections 901 and 915, and 904 as applicable) and the applicable referenced standards.*

**F-904.5 Wet-chemical systems.** Wet-chemical extinguishing systems shall be [installed,] maintained, periodically inspected and tested in accordance with NFPA 17A and their listing.

\* \* \*

**F-904.6 Dry-chemical systems.** Dry-chemical extinguishing systems shall be [installed,] maintained, periodically inspected and tested in accordance with NFPA 17 and their listing.

\* \* \*

**F-904.7 Foam systems.** Foam-extinguishing systems shall be [installed,] maintained, periodically inspected and tested in accordance with NFPA 11 and NFPA16 and their listing.

\* \* \*

**F-904.8 Carbon dioxide systems.** Carbon dioxide extinguishing systems shall be [installed,] maintained, periodically inspected and tested in accordance with NFPA 12 and their listing.

\* \* \*

**F-904.9 Halon systems.** Halogenated extinguishing systems shall be [installed,] maintained, periodically inspected and tested in accordance with NFPA 12A and their listing.

\* \* \*

**F-904.10 Clean-agent systems.** Clean-agent fire-extinguishing systems shall be [installed,] maintained, periodically inspected and tested in accordance with NFPA 2001 and their listing.

\* \* \*



**F-904.11 Commercial cooking systems.** The automatic fire-extinguishing system for commercial cooking systems shall be of a type recognized for protection of commercial cooking equipment and exhaust systems of the type and arrangement protected. *New installations of [P]preengineered automatic dry- and wet- chemical extinguishing systems shall be tested in accordance with UL 300 and listed and labeled for the intended application. New installations of [O]other types of automatic fire-extinguishing systems shall be listed and labeled for specific use as protection for commercial cooking operations.* The system shall be installed in accordance with [this code] *Chapter 9 of the Philadelphia Building Code*, its listing and the manufacturer's installation instructions. [Automatic fire-extinguishing systems of the following types shall be installed in accordance with the referenced standard indicated, as follows:

1. Carbon dioxide extinguishing systems, NFPA 12.
2. Automatic sprinkler systems, NFPA 13.
3. Foam-water sprinkler system or foam-water spray systems, NFPA 16.
4. Dry-chemical extinguishing systems, NFPA 17.
5. Wet-chemical extinguishing systems, NFPA 17A.

**Exception:** Factory-built commercial cooking recirculating systems that are tested in accordance with UL 710B and listed, labeled and installed in accordance with Section 304.1 of the International Mechanical Code.

**904.11.1 Manual system operation.** A manual actuation device shall be located at or near a means of egress from the cooking area a minimum of 10 feet (3048 mm) and a maximum of 20 feet (6096 mm) from the kitchen exhaust system. The manual actuation device shall be installed not more than 48 inches (1200 mm) nor less than 42 inches (1067 mm) above the floor and shall clearly identify the hazard protected. The manual actuation shall require a maximum force of 40 pounds (178 N) and a maximum movement of 14 inches (356 mm) to actuate the fire suppression system.

**Exception:** Automatic sprinkler systems shall not be required to be equipped with manual actuation means.

**904.11.2 System interconnection.** The actuation of the fire extinguishing system shall automatically shut down the fuel or electrical power supply to the cooking equipment. The fuel and electrical supply reset shall be manual.

**904.11.3 Carbon dioxide systems.** When carbon dioxide systems are used, there shall be a nozzle at the top of the ventilating duct. Additional nozzles that are symmetrically arranged to give uniform distribution shall be installed within vertical ducts exceeding 20 feet (6096 mm) and horizontal ducts exceeding 50 feet (15 240 mm). Dampers shall be installed at either the top or the bottom of the duct and shall be arranged to operate automatically upon activation of the fire-extinguishing system. When the damper is installed at the top of the duct, the top nozzle shall be immediately below the damper. Automatic carbon dioxide fire-extinguishing systems shall be sufficiently sized to protect all hazards venting through a common duct simultaneously.

**904.11.3.1 Ventilation system.** Commercial-type cooking equipment protected by an automatic carbon dioxide extinguishing system shall be arranged to shut off the ventilation system upon activation.

**904.11.4 Special provisions for automatic sprinkler systems.** Automatic sprinkler systems protecting commercial-type cooking equipment shall be supplied from a separate, readily accessible, indicating-

type control valve that is identified.

**904.11.4.1 Listed sprinklers.** Sprinklers used for the protection of fryers shall be tested in accordance with UL 199E, listed for that application and installed in accordance with their listing.]

***F-904.11.[5]1 Portable fire extinguishers for commercial equipment.*** Portable fire extinguishers shall be provided within a 30-foot (9144 mm) travel distance of commercial-type cooking equipment. Cooking equipment involving solid fuels or vegetable or animal oils and fats shall be protected by a Class K rated portable extinguisher in accordance with Sections 904.11.1.1 or 904.11.1.2, as applicable.

***F-904.11.[5]1.1 Portable fire extinguishers for solid fuel cooking appliances.*** All solid fuel cooking appliances, whether or not under a hood, with fireboxes 5 cubic feet (0.14 m<sup>3</sup>) or less in volume shall have a minimum 2.5-gallon (9 L) or two 1.5-gallon (6 L) Class K wet-chemical portable fire extinguishers located in accordance with Section 904.11.1.

***F-904.11.[5]1.2 Class K portable fire extinguishers for deep fat fryers.*** When hazard areas include deep fat fryers, listed Class K portable fire extinguishers shall be provided as follows:

1. For up to four fryers having a maximum cooking medium capacity of 80 pounds (36.3 kg) each: One Class K portable fire extinguisher of a minimum 1.5 gallon (6 L) capacity.
2. For every additional group of four fryers having a maximum cooking medium capacity of 80 pounds (36.3 kg) each: One additional Class K portable fire extinguisher of a minimum 1.5 gallon (6 L) capacity shall be provided.
3. For individual fryers exceeding 6 square feet (0.55 m<sup>2</sup>) in surface area: Class K portable fire extinguishers shall be installed in accordance with the extinguisher manufacturer's recommendations.

**[904.11.6 Operations and maintenance.** Automatic extinguishing systems protecting commercial cooking systems shall be maintained in accordance with Sections 904.11.6.1 through 904.11.3.]

***F-904.11.2 Testing and maintenance.*** *Testing and maintenance of commercial cooking appliance automatic fire-extinguishing systems shall be in accordance with Sections 901, 904 and 915 and the applicable NFPA standard for the type of system.*

***F-904.11.[6]2.1 Existing automatic fire-extinguishing systems.*** Where changes in the cooking media, positioning of cooking equipment or replacement of the cooking equipment occur in existing commercial cooking systems, the automatic fire-extinguishing system shall be required to comply with the applicable provisions of Section[s] 904.11. [through 904.11.4.]

***F-904.11.[6]2.2 Extinguishing system service.*** Automatic fire-extinguishing systems shall be serviced at least every 6 months and after activation of the system. Inspection shall be by qualified individuals, and a certificate of inspection shall be forwarded to the fire code official upon completion.

***F-904.11.[6]2.3 Fusible link and sprinkler head replacement.*** Fusible links and automatic sprinkler heads shall be replaced at least annually, and other protection devices shall be serviced or replaced in

accordance with the manufacturer's instructions.

**Exception:** Frangible bulbs are not required to be replaced annually.

\* \* \*

## SECTION F-905 STANDPIPE SYSTEMS

\* \* \*

F-905.2 Installation standard. Standpipe systems shall be installed in accordance with this section and NFPA 14.

*Exception: Water supply test data used for the purpose of system design shall not be older than 3 years from the date of submission of the installation plans.*

F-905.3.1 Height. Class III standpipe systems shall be installed throughout buildings where the floor level of the highest story is located more than 30 feet (9144 mm) above the lowest level of the fire department vehicle access, or where the floor level of the lowest story is located more than 30 feet (9144 mm) below the highest level of fire department vehicle access. *Buildings not exceeding 75 feet above the lowest level of fire department vehicle access shall have manual wet, automatic wet, automatic dry or semiautomatic dry systems. Buildings exceeding 75 feet above the lowest level of fire department vehicle access shall have automatic wet, automatic dry or semi-automatic dry systems.*

### Exceptions:

1. Class I standpipes are allowed in buildings equipped throughout with an automatic sprinkler system in accordance with Section F-903.3.1.1 or F-903.3.1.2.
2. Class I manual standpipes are allowed in open parking garages where the highest floor is located not more than 150 feet (45 720 mm) above the lowest level of fire department vehicle access.
3. Class I manual dry standpipes are allowed in open parking garages that are subject to freezing temperatures, provided that the hose connections are located as required for Class II standpipes in accordance with Section F-905.5.
4. Class I standpipes are allowed in basements equipped throughout with an automatic sprinkler system.
5. In determining the lowest level of fire department vehicle access, it shall not be required to consider:

5.1. ~~Recessed loading docks for four vehicles or less, and~~

5.2. ~~Conditions where topography makes access from the fire department vehicle to the building impractical or impossible.~~

\* \* \*

F-905.4 Location of Class I standpipe hose connections. Class I standpipe hose connections shall be provided in all of the following locations[:]. *The hose connections shall have a minimum clearance of 8 inches measured*

*from the center of the hose connection in at least one plane to permit the fire department the option of attaching a wye fitting to use two 1-1/2 inch hose lines in lieu of one 2-1/2 inch hose line.*

1. In every required stairway, a hose connection shall be provided for each floor level above or below grade. Hose connections shall be located at an intermediate floor level landing between floors, unless otherwise approved by the fire [code official] department.

*Where a building contains stairways in addition to the required exit stairways, the additional stairways are subject to this section where they meet the criteria for exit stairways, including the exit discharge criteria. Where an additional stairway discharges in accordance with Section F-1027.1, it is subject to the provisions of this section.*

2. On each side of the wall adjacent to the exit opening of a horizontal exit.

Exception: Where floor areas adjacent to a horizontal exit are reachable from exit stairway hose connections by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the horizontal exit.

3. In every exit passageway, at the entrance from the exit passageway to other areas of a building.

Exception: Where floor areas adjacent to an exit passageway are reachable from exit stairway hose connections by a 30-foot (9144 mm) hose stream from a nozzle attached to 100 feet (30 480 mm) of hose, a hose connection shall not be required at the entrance from the exit passageway to other areas of the building.

4. In covered mall buildings, adjacent to each exterior public entrance to the mall and adjacent to each entrance from an exit passageway or exit corridor to the mall.

5. Where the roof has a slope less than four units vertical in 12 units horizontal (33.3 percent slope), each standpipe shall be provided with a hose connection located either on the roof or at the highest landing of a stairway with stair access to the roof. An additional hose connection shall be provided at the top of the most hydraulically remote standpipe for testing purposes.

6. Where the most remote portion of a nonsprinklered floor or story is more than 150 feet (45 720 mm) from a hose connection or the most remote portion of a sprinklered floor or story is more than 200 feet (60 960 mm) from a hose connection, the fire code official is authorized to require that additional hose connections be provided in approved locations.

\* \* \*

~~F-905.8 Dry standpipes. Dry standpipes shall not be installed.~~

Exception: Where subject to freezing and in accordance with NFPA 14, *except that manual dry systems are only permitted in accordance with F-905.3.1, Exception #3.*

\* \* \*

**(Delete Section in its entirety and substitute the following)**

***F-905.1 Standpipes in existing buildings. Standpipes systems in existing buildings shall be in accordance with Section 905. Where standpipes in an existing building exceed the requirements of this section, as a result of installation requirements by the current or a previous edition of the Philadelphia Building Code,***

*the level of standpipe protection shall not be reduced, except as permitted by Section 905.3.*

***F-905.2 Class I standpipes.*** *Class I standpipes shall be installed in existing buildings with occupied floors located more than 50 feet (15 240 mm) above or below the lowest level of fire department vehicle access. The standpipes shall have hose connections in each required exit stairway (stair tower, or vestibule where egress width requirements are not violated). Fire department connections shall be in accordance with Section F-912. These requirements shall also apply to buildings that were granted variances prior to January 1, 2004, to omit standpipes from the required exit stairways.*

***F-905.2.1 Installation requirements.*** *Class I standpipes required to be installed to comply with this section shall be installed in accordance with Section 905 of Chapter 9 of the Philadelphia Building Code. Class I manual dry standpipes are not permitted, except in open parking garages or by variance granted on or after January 1, 2004. The following are exceptions to the 100 pounds per square inch pressure requirement of NFPA 14 at the most remote hose connection. The exceptions do not apply to the flow requirements.*

***Exceptions:***

- 1. In existing buildings having the highest occupied floors located not more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access, Class I standpipe systems are permitted to be manual wet systems.***
- 2. Standpipe systems installed prior to January 1, 1995, that provide a residual pressure of 65 psi (448 kPa) or greater at the most remote hose connection are exempt from the requirement to provide a residual pressure of 100 psi (690 kPa) at the most remote hose connection.***
- 3. Standpipe systems with a residual pressure of less than 100 psi (690 kPa) at the most remote hose connection are permitted, provided that the pressure is sufficient to fill the system and the building is in accordance with Conditions 3.1 through 3.3.***

***3.1. The building existed prior to January 1, 2004.***

***3.2. The building is equipped throughout with an automatic fire extinguishing system.***

***3.3. The floor level of the highest floor is not more than 150 feet (45 720 mm) above the lowest level of fire department vehicle access.***

***F-905.2.2 Existing standpipe hose connection location.*** *Existing Class I standpipe hose connections within required exit stairways (stair tower or vestibule) located on floor level landings are not required to be relocated to alternate floor level landings. Existing hose connections outside of exit stairways shall be relocated to within the exit stairway.*

***F-905.2.3 Orientation of hose connections.*** *Class I standpipe hose connections shall have a minimum clearance of 8 inches (2032 mm) measured from the center of the hose connection in at least one plane to permit the fire department the option of attaching a wye fitting to use two 1-1/2 inch (38 mm) hoses in lieu of one 2-1/2 inch (63 mm) hose.*

***F-905.3 Class II standpipe systems. Existing Class II standpipes (also known as occupant use standpipes) shall be maintained. Removal of the hose or the entire system shall be permitted in accordance with the following:***

***F-905.3.1 Removal of Class II hose. Removal of hose from a Class II or Class III standpipe system is permitted in buildings equipped with a wet or automatic or semi-automatic dry Class I standpipe system or the building is not required to have a Class I system based on Section 905.2.***

***F-905.3.2 Removal of Class II system. Removal of a Class II standpipe system is permitted in buildings equipped with a wet or automatic or semi-automatic dry Class I standpipe system or the building is not required to have a Class I standpipe system based on Section 905.2 and not required to have a Class II standpipe system in the locations where they exist based on the Philadelphia Building Code.***

\* \* \*

## SECTION F-906 PORTABLE FIRE EXTINGUISHERS

\* \* \*

## SECTION F-907 FIRE ALARM AND DETECTION SYSTEMS

\* \* \*

~~F-907.1.1 Construction documents. Construction documents for fire alarm systems shall be of sufficient clarity to indicated the location, nature and extend of the work proposed and show in detail that it will conform to the provisions of this code, the International Building Code, and relevant laws, ordinances, rules and regulations, as determined by the [fire] code official.~~

\* \* \*

~~F-907.2.1 Group A. A manual fire alarm system that activates the occupant notification system [in] accordance with Section F-907.6 shall be installed in Group A occupancies having an occupant load of 300 or more, and in all Special Assembly Occupancies. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy.~~

### ~~Exceptions:~~

~~1. Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section F-903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.~~

~~2. Manual fire alarm boxes are not required in Special Assembly Occupancies where the occupancy is protected throughout with a rate-of-rise heat detection system, provided one manual fire alarm box is installed in a location that is constantly attended by staff during periods of occupancy by the public.~~

\* \* \*

~~F-907.2.1.2 Special Assembly Occupancies. In Special Assemblies Occupancies, a shut-off (shunt trip) device shall be provided to automatically shut off electricity to the circuits controlling audio equipment in the facility upon the activation of the fire alarm system or automatic sprinkler system.~~

~~\* \* \*~~

~~F-907.2.3 Group E. A manual fire alarm system that activates the occupant notification system in accordance with Section F-907.6 shall be installed in Group E occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm.~~

~~Exceptions:~~

- ~~1. A manual fire alarm system is not required in Group E occupancies with an occupant load of less than 50, provided that interconnected smoke alarms are installed in accordance with Section F-907.2.11 and a minimum of one smoke alarm is installed in each classroom or child care room.~~
- ~~2. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:~~
  - ~~2.1. Interior corridors are protected by smoke detectors.~~
  - ~~2.2. Auditoriums, cafeterias, gymnasiums and similar areas are protected by heat detectors or other approved detection devices.~~
  - ~~2.3. Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.~~
  - ~~2.4. The capability to activate the evacuation signal from a central point is provided.~~
  - ~~2.5. In buildings where normally occupied spaces are provided with a two-way communication system between such spaces and a constantly attended receiving station from where a general evacuation alarm can be sounded, except in locations specifically designated by the fire code official.~~

~~\* \* \*~~

~~F-907.2.5 Group H. A manual fire alarm system that activates the occupant notification system shall be installed in Group H[5] occupancies and in occupancies used for the manufacture of organic coatings. An automatic smoke detection system that activates the occupant notification system shall be installed for highly toxic gases, organic peroxides and oxidizers in accordance with Chapters 37, 39 and 40 respectively.~~

~~\* \* \*~~

~~F-907.2.9 Group R-2. Fire alarm systems and smoke alarms shall be installed in Group R-2 occupancies as required in Sections F-907.2.9.1 and F-907.2.9.2.~~

~~F-907.2.9.1 Manual fire alarm system. A manual fire alarm system that activates the occupant notification system in accordance with Section F-907.6 shall be installed in Group R-2 occupancies. [where:~~

- ~~1. Any dwelling unit or sleeping unit is located three or more stories above the lowest level of exit discharge;~~
- ~~2. Any dwelling unit or sleeping unit located more than one story below the highest level of exit discharge of exits serving the dwelling unit or sleeping unit; or~~

3. ~~The building contains more than 16 dwelling units or sleeping units.]~~

Exceptions:

1. ~~A fire alarm system is not required in buildings not more than two stories in height where all dwelling units or sleeping units and contiguous attic and crawl spaces are separated from each other and public or common areas by at least 1-hour fire partitions and each dwelling unit or sleeping unit has an exit directly to a public way, exit court or yard.~~

2. ~~Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section F-903.3.1.1 or F-903.3.1.2 and the occupant notification appliances will automatically activate throughout the notification zones upon a sprinkler water flow.~~

3. ~~A fire alarm system is not required in buildings that do not have interior corridors serving dwelling units and are protected by an approved automatic sprinkler system installed in accordance with Section F-903.3.1.1 or F-903.3.1.2, provided that dwelling units either have a means of egress door opening directly to an exterior exit access that leads directly to the exits or are served by open-ended corridors designed in accordance with Section F-1026.6, Exception 4.~~

\* \* \*

~~F-907.2.11.2 Groups R-2, R-3[,] and R-4 [and I-1]. Single or multiple smoke alarms shall be installed and maintained in Group R-2, R-3[,] and R-4 [and I-1] regardless of occupant load at all of the following locations:~~

1. ~~On the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms.~~

2. ~~In each room used for sleeping purposes.~~

~~[Exception: Single or multiple station smoke alarms in Group I-1 shall not be required where smoke detectors are provided in the sleeping rooms as part of an automatic smoke detection system.]~~

3. ~~In each story within a dwelling unit, including basements but not including crawl spaces and uninhabitable attics. In dwellings or dwelling units with split levels and without an intervening door between the adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower level is less than one full story below the upper level.~~

\* \* \*

~~F-907.5.2.4 Signs at manual fire alarm boxes. [Where fire alarm systems are not monitored by a supervising station, an approved permanent sign shall be installed adjacent to each manual fire alarm box that reads: WHEN ALARM SOUNDS CALL FIRE DEPARTMENT] At each manual fire alarm box a sign shall be mounted near the box that states: IN CASE OF FIRE – SOUND ALARM AND CALL FIRE DEPARTMENT (OR 911).~~

\* \* \*

**(Delete Section in its entirety and substitute the following)**



***F-907.1 Fire alarm systems in existing buildings.*** Fire alarm systems in existing buildings and structures shall be in accordance with Section 907. Where an existing building or structure does not have a fire alarm system in accordance with Section 907, the type of system required by Section 907 shall be installed in accordance with the appropriate subsection of Section 907 of the Philadelphia Building Code. These requirements shall not be construed to permit the reduction or elimination of fire alarm systems exceeding the requirements of Section 907 as a result of compliance with the current or a previous edition of the Philadelphia Building Code.

***F-907.1.1 Group A occupancies.*** A manual fire alarm system shall be installed in existing Group A-1, A-2 and A-3 occupancies with an occupant load of 300 or more and in all Special Assembly Occupancies in accordance with the Philadelphia Building Code, Section 907.2.1, excluding Section 907.2.1.1. In Special Assembly Occupancies a shut-off (shunt trip) device shall be provided to shut off electricity to circuits controlling audio equipment in the facility upon activation of the fire alarm system or automatic sprinkler system.

***F-907.1.2 Group E.*** A manual fire alarm system shall be installed in existing Group E occupancies in accordance with Section 907.2.3 of the Philadelphia Building Code.

***Exceptions:***

- 1. A manual fire alarm system is not required in a building with an area of 1,000 square feet (93 m<sup>2</sup>) that contains a single classroom and is located no closer than 50 feet (15 240 mm) from another building.***
- 2. A manual fire alarm system is not required in Group E occupancies with an occupant load less than 50, provided that one interconnected smoke alarm is installed in each classroom or child care area.***
- 3. Group E occupancies operated in Group R-3 occupancies are not required to have a manual fire alarm system provided that the building has the fire protection equipment required by Section 409.***

***F-907.1.3 Group H.*** A manual fire alarm system shall be installed in existing Group H occupancies in accordance with Section 907.5. An automatic smoke detection system shall be installed in occupancies with highly toxic gases, organic peroxides and oxidizers in accordance with Chapters 37, 39 and 40 respectively.

***F-907.1.4 Group I-1.*** A manual and automatic fire alarm system shall be installed in existing Group I-1 residential living facilities. The manual system shall be installed in accordance with Section 907.2.6 of the Philadelphia Building Code. The automatic fire alarm system shall be installed in accordance with Section 907.2.6.1 of the Philadelphia Building Code.

***Exception:*** In Group I-1 occupancies protected throughout with an automatic sprinkler system, automatic fire detection is not required.

***F-907.1.5 Group I-2.*** A manual and automatic fire alarm system shall be installed in existing Group I-2 occupancies. The manual system shall be installed in accordance with Section 907.2.6 of the Philadelphia Building Code. The automatic system shall be installed in accordance with Section 907.2.6.2 of the

***Philadelphia Building Code.***

***Exceptions: Automatic fire detection is not required in existing Group I-2 occupancies protected throughout by an automatic sprinkler system.***

***F-907.1.6 Group I-3. An automatic and manual fire alarm system shall be installed in existing Group I-3 occupancies in accordance with Section 907.2.6.3 of the Philadelphia Building Code.***

***F-907.1.7 Group I-4. An automatic and manual fire alarm system shall be installed in existing Group I-4 occupancies in accordance with Section 907.1.4.***

***F-907.1.8 Group R-1. A fire alarm system shall be installed in existing Group R-1 occupancies in accordance with Sections 907.1.8.1 through 907.1.8.2.2 and smoke alarms shall be installed in accordance with Section 907.2.***

***F-907.1.8.1 Group R-1 hotel and motel manual and automatic fire alarm system. A manual and automatic (smoke detection) fire alarm system shall be installed in existing Group R-1 hotels and motels in accordance with Sections 907.1.8.1.1 and 907.1.8.1.2***

***F-907.1.8.1.1 Group R-1 hotel and motel manual fire alarm system. A manual fire alarm system shall be installed in existing Group R-1 hotels and motels.***

***Exceptions:***

- 1. Buildings less than two stories in height where all sleeping units, attics and crawl spaces are separated by 1-hour fire-resistance-rated construction and each sleeping unit has direct access to a public way, exit court or yard.***
- 2. Manual fire alarm boxes are not required throughout the building when in accordance with Conditions 2.1 through 2.3.***
  - 2.1. The building is equipped throughout with an automatic sprinkler system.***
  - 2.2. The notification appliances will activate upon sprinkler water flow.***
  - 2.3. At least one manual fire alarm box is installed at an approved location.***

***F-907.1.8.1.2 Group R-1 hotel and motel automatic fire alarm system. An automatic fire alarm system shall be installed in existing Group R-1 hotels and motels throughout all interior corridors serving sleeping rooms not equipped with a supervised, automatic sprinkler system.***

***Exception: An automatic fire alarm system is not required in buildings that do not have interior corridors serving sleeping units and where each sleeping unit has a means of egress door opening directly to an exit or to an exterior exit access that leads directly to an exit.***

***F-907.1.8.2 Group R-1 boarding and rooming houses manual and automatic fire alarm system. A manual and automatic (smoke detection) fire alarm system shall be installed in existing Group R-1 boarding and rooming houses in accordance with Sections 907.1.8.2.1 and 907.1.8.2.2.***

***F-907.1.8.2.1 Group R-1 boarding and rooming houses manual fire alarm system. A manual fire alarm system shall be installed in existing Group R-1 boarding and rooming houses.***

***Exception: Buildings less than two stories in height where all sleeping units, attics and crawl spaces are separated by 1-hour fire-resistance-rated construction and each sleeping unit has direct access to a public way, exit court or yard.***

***F-907.1.8.2.2 Group R-1 boarding and rooming houses automatic fire alarm system. An automatic fire alarm system shall be installed in existing Group R-1 boarding and rooming houses throughout all interior corridors serving sleeping units not equipped with a supervised, automatic sprinkler system.***

***Exception: Buildings equipped with hard-wired, single-station smoke alarms meeting or exceeding the requirements of Section 907.2.11 of the Philadelphia Building Code and where the fire alarm system includes at least one manual fire alarm box per floor arranged to initiate the alarm.***

***F-907.1.9 Group R-2. A manual and automatic fire alarm system shall be installed in existing Group R-2 occupancies. The automatic detection shall be smoke detectors installed throughout the common areas and basement.***

***Exceptions:***

- 1. Where each living unit is separated from other contiguous living units by fire barriers having a fire-resistance rating of not less than 0.75 hour, and where each living unit has either its own independent exit or its own independent stairway or ramp discharging at grade.***
- 2. A separate fire alarm system is not required in buildings that are equipped throughout with a supervised, automatic sprinkler system and have a local alarm to notify all occupants.***
- 3. A fire alarm system is not required in buildings that do not have interior corridors serving dwelling units and are protected by an automatic sprinkler system, provided that dwelling units either have a means of egress door opening directly to an exterior exit access that leads directly to the exits or are served by open-ended corridors.***

***F-907.1.10 Group R-1 and R-2 congregate living facilities. Existing Group R-1 and R-2 congregate living facilities shall have hard-wired, interconnected smoke alarms installed in accordance with NFPA 72 and Section 907.2.11.1 or 907.2.11.2 as applicable of the Philadelphia Building Code. (Group R-1 congregate living is up to 10 and Group R-2 congregate living is up to 16 occupants. See Chapter 2 under Occupancy Classifications for the complete definition of Group R-1 and R-2 congregate living facilities.)***

***F-907.1.11 Group R-4. A manual and automatic (smoke detection) fire alarm system shall be installed in existing Group R-4 residential care/assisted living facilities in accordance with Section 907.2.10 of the Philadelphia Building Code.***

***Exceptions:***

- 1. Where there are hard-wired, interconnected smoke alarms meeting the requirements of Section 907.2.11 of the Philadelphia Building Code and there is at least one manual fire alarm box per floor arranged to continuously sound the smoke alarms.***

- 2. Hard-wired, interconnected smoke alarms installed in accordance with Section 907.2.11 of the Philadelphia Building Code prior to January 1, 2010.*

*F-907.1.12 Mixed residential and nonresidential use. Where a nonresidential occupancy is located below a residential occupancy, a manual and automatic (smoke detection) fire alarm system shall be installed with smoke detectors installed throughout the nonresidential occupancy, manual fire alarm boxes installed at the exits in the nonresidential areas and alarm notification appliances installed throughout the building. Systems required to be installed to comply with this section shall be installed in accordance with the appropriate sections of Section 907 of the Philadelphia Building Code. Smoke alarms shall be installed in the dwelling units of the residential portions of the building in accordance with Section 907.2.*

*Exception: The fire alarm system is not required where an automatic sprinkler system is installed throughout the non-residential portions of the building.*

*F-907.2 Single-and multiple-station smoke alarms. Single- and multiple-station (single-station wired together to enable all to sound an alarm when one activates) smoke alarms shall be installed in existing Group R occupancies in accordance with Sections 907.2.1 through 907.2.3.*

*F-907.2.1 Location of smoke alarms. Existing Group R occupancies and dwellings shall be provided with single-station smoke alarms. Where installation is required to meet the requirements of this section the smoke alarms shall be installed in accordance with Section 907.2.11 of the Philadelphia Building Code, except as permitted in this section.*

*Exceptions:*

- 1. Smoke alarms are not required in sleeping rooms in existing Group R-2 occupancies in high-rise buildings equipped throughout with an automatic fire extinguishing system.*
- 2. Smoke alarms are not required in sleeping rooms in Group R-2 or R-3 occupancies in buildings built prior to January 1, 1988, and not classified as high-rise.*
- 3. Where a smoke alarm installed in the immediate vicinity of bedrooms would result in its installation within 3 feet (914 mm) of a door to a bathroom or kitchen, installation beyond the immediate vicinity is permitted, provided that it does not exceed 15 feet (4572 mm) from all bedroom doors.*

*F-907.2.2 Interconnection of smoke alarms. Where more than one smoke alarm is required to be installed within an individual dwelling or sleeping unit, the smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed.*

*Exceptions:*

- 1. Interconnection is not required in buildings built prior to January 1, 1988, that are not undergoing alterations, repairs or construction of any kind.*

- 2. Smoke alarms in existing areas of buildings built prior to January 1, 1988, are not required to be interconnected where repairs do not result in the removal of interior wall or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for interconnection without the removal of interior finishes.*

*F-907.2.3 Power source for smoke alarms. Single-station smoke alarms shall receive their primary power from the building wiring provided that such wiring is served from a commercial source and shall be equipped with a battery backup. Smoke alarms with integral strobes that are not equipped with battery backup shall be connected to an emergency electrical system. Smoke alarms shall emit a signal when the batteries are low. Wiring shall be permanent and without a disconnecting switch other than as required for overcurrent protection.*

*Exceptions:*

- 1. Smoke alarms are permitted to be solely battery powered with 10-year non-removable (sealed) batteries in existing one- and two-family dwellings built prior to January 1, 1988, where no construction is taking place.*
- 2. Smoke alarms are permitted to be solely battery powered with 10-year non-removable (sealed) batteries in one- and two-family dwellings that are not served from a commercial power source.*
- 3. Smoke alarms are permitted to be solely battery powered with 10-year non-removable (sealed) batteries in existing one- and two-family dwellings built prior to January 1, 1988, undergoing alterations or repairs that do not result in the removal of interior walls or ceiling finishes exposing the structure, unless there is an attic, crawl space or basement available which could provide access for building wiring without the removal of interior finishes.*

*F-907.2.4 Testing and maintenance of smoke alarms. Smoke alarms, both battery powered and hard wired, shall be tested, inspected and maintained in accordance with manufacturer's instructions. They shall be tested weekly.*

*F-907.2.4.1 Responsibility. Occupants shall be responsible for the testing and battery replacement of battery-powered smoke alarms within their dwelling units. Owners shall be responsible for the replacement of non-operating smoke alarms within three days of written notice.*

*F-907.2.5 Verification of smoke alarms upon sale of building. Upon the sale of a building containing a Group R-3 occupancy, the seller shall certify in writing to the buyer that smoke alarms required by Section 907.2 are installed and in proper operating condition.*

*F-907.3 Audibility of fire alarm systems. Fire alarm system audible alarm notification appliances installed in existing buildings and structures shall provide sound pressure levels in accordance with the following.*

- 1. Occupancies with an existing, previously approved fire alarm system installed prior to March 1, 1991, are permitted to have audible alarm notification appliances that produce a sound pressure level above the normal ambient sound level of at least 15 decibels per the A scale of a sound pressure level meter*

*(dBA) throughout the building.*

- 2. Fire alarm systems installed between March 1, 1991, and December 31, 2009, are permitted to have audible alarm notification appliances that produce a sound pressure level of at least 15 dBA above the normal sound level, but not less than 60 dBA throughout the building, and not less than 70 dBA throughout Group I-1 and R occupancies.*
- 3. Fire alarm systems installed after December 31, 2009, shall have audible alarm notification appliances that produce a sound pressure level of at least 15 dBA above the normal sound level, but not less than 60 dBA throughout the building, and not less than 75 dBA throughout Group I-1 and R occupancies.*

*F-907.4 Delay in activation of fire alarm. There shall be no delay in the activation of the fire alarm system notification appliances, other than by the alarm verification feature, unless approved in writing by the fire department.*

*F-907.5 Manual fire alarm boxes. Manual fire alarm boxes required by this code or the current or a previous edition of the Philadelphia Building Code shall be maintained.*

*Exceptions:*

- 1. Manual fire alarm boxes are not required where an automatic sprinkler system is installed throughout the building, provided that in Group I-1 and I-2 occupancies they are installed at all nurses' control stations or other constantly attended staff locations.*
- 2. In Group R-2 occupancies with one exit and not exceeding three stories in height, one manual fire alarm box is permitted provided that it is installed in the exit stairway at the exit discharge.*

*F-907.5.1 Sign at manual fire alarm boxes. At each manual fire alarm box a sign shall be mounted near the box that states: IN CASE OF FIRE SOUND ALARM AND CALL FIRE DEPARTMENT (or CALL 911).*

*F-907.6 Fire alarm zoning indicating panels. A fire alarm zoning indicating panel shall be located at a visible location at the main entrance of buildings with fire alarm systems, or at a location approved by the fire department.*

*Exception: Buildings existing prior to January 1, 2007, provided that the zone indicating panel is located in a location readily accessible to the fire department upon their arrival to the building.*

*F-907.7 Inspection, testing and maintenance of fire alarm systems. The maintenance and testing schedules and procedures for fire alarm and fire detection systems shall be in accordance with Sections 907.7.1 through 907.7.5 and NFPA 72.*

*F-907.7.1 Maintenance required. Whenever required for compliance with the provisions of this code, devices, equipment, systems, conditions, arrangements, levels of protection or other features shall*

*thereafter be continuously maintained in accordance with applicable NFPA requirements or as directed by the fire code official.*

***F-907.7.2 Testing.*** *Testing shall be performed in accordance with the schedules in NFPA 72 or more frequently where required by the fire code official.*

*Exception: Devices or equipment that are inaccessible for safety considerations shall be tested during scheduled shutdowns where approved by the fire code official, but not less than every 18 months.*

***F-907.7.3 Smoke detector sensitivity.*** *Smoke detector sensitivity shall be checked within one year after installation and every alternate year thereafter. After the second calibration test, where sensitivity tests indicate that the detector has remained within its listed and marked sensitivity range (or 4-percent obscuration light grey smoke, if not marked), the length of time between calibration tests shall be permitted to be extended to a maximum of 5 years. Where the frequency is extended, records of detector-caused nuisance alarms and subsequent trends of these alarms shall be maintained. In zones or areas where nuisance alarms show any increase over the previous year, calibration tests shall be performed.*

***F-907.7.4 Method.*** *To verify that each smoke detector is within its listed and marked sensitivity range, it shall be tested using one of the following methods:*

- 1. A calibrated test method;*
- 2. The manufacturer's calibrated sensitivity test instrument;*
- 3. Listed control equipment arranged for the purpose;*
- 4. A smoke detector/control unit arrangement whereby the detector causes a signal at the control unit where the detector's sensitivity is outside its acceptable sensitivity range; or*
- 5. Another calibrated sensitivity test method acceptable to the fire code official.*

*Detectors found to have a sensitivity outside the listed and marked sensitivity range shall be cleaned and recalibrated or replaced.*

***Exceptions:***

- 1. Detectors listed as field adjustable shall be permitted to be either adjusted within the listed and marked sensitivity range and cleaned and recalibrated or they shall be replaced.*
- 2. This requirement shall not apply to single-station smoke alarms.*

***F-907.7.4.1 Testing device.*** *Smoke detector sensitivity shall not be tested or measured using a device that administers an unmeasured concentration of smoke or other aerosol into the detector.*

***F-907.7.5 Maintenance, inspection and testing.*** *The building owner shall be responsible to maintain the*

*fire and life safety systems in an operable condition at all times. Service personnel shall meet the qualification requirements of Section 915 and NFPA 72 for maintaining, inspecting and testing such systems. A written record shall be maintained and shall be made available to the fire code official.*

## SECTION F-908 EMERGENCY ALARM SYSTEMS

\* \* \*

**F-908.6 Refrigeration systems.** Refrigeration system machinery rooms [shall be] provided with a refrigeration detector [in accordance with Section 608.8] *shall be maintained.*

\* \* \*

## SECTION 909 SMOKE CONTROL SYSTEMS

(Delete Section in its entirety and substitute the following)

**F-909.1 Smoke control systems.** *Smoke control systems installed in buildings shall be maintained and tested in accordance with this section.*

**F-909.2 Maintenance.** *Smoke control systems shall be maintained to ensure to a reasonable degree that the system is capable of controlling smoke for the duration required. The system shall be maintained in accordance with the manufacturer's instructions and Sections 909.2.1 through 909.2.5.*

**909.2.1 Schedule.** *A routine maintenance and operational testing program shall be initiated immediately after the smoke control system has passed the acceptance tests. A written schedule for routine maintenance and operational testing shall be established.*

**909.2.2 Written record.** *A written record of smoke control system testing and maintenance shall be maintained on the premises. The written record shall include the date of the maintenance, identification of the servicing personnel and notification of any unsatisfactory condition and the corrective action taken, including parts replaced.*

**909.2.3 Testing.** *Operational testing of the smoke control system shall include all equipment such as initiating devices, fans, dampers, controls, doors and windows.*

**909.2.4 Dedicated smoke control systems.** *Dedicated smoke control systems shall be operated for each control sequence semiannually. The system shall also be tested under standby power conditions.*

**909.2.5 Nondedicated smoke control systems.** *Nondedicated smoke control systems shall be operated for each control sequence annually. The system shall also be tested under standby power conditions.*

## SECTION 910 SMOKE AND HEAT VENTS

(Delete Section in its entirety and substitute the following)

**F-910.1 Smoke and heat vents, mechanical exhaust systems and draft curtains.** *Smoke and heat vents, mechanical smoke exhaust systems and draft curtains installed in buildings shall be maintained in*



*accordance with the installation standards.*

***F-910.2 Inspection, testing and maintenance. Smoke and heat vents and mechanical exhaust systems shall be inspected, tested and maintained in accordance with NFPA 204 and this section.***

***F-910.2.1 Qualifications of persons. The testing and maintenance of smoke and heat vents and mechanical exhaust systems shall be performed by persons who are knowledgeable in the operation, testing and maintenance of the systems.***

***F-910.2.2 Testing. Smoke and heat vents and mechanical exhaust systems shall be tested annually.***

***F-910.2.3 Ice and snow removal. Ice and snow shall be removed from vents promptly, following any accumulation.***

***F-910.2.4 Deficiencies. Any deficiencies noted during testing or maintenance shall be corrected immediately.***

***F-910.2.5 Record of testing and maintenance. A record of all testing and maintenance shall be maintained and available for inspection by the fire code official.***

## **SECTION 911 EXPLOSION CONTROL**

***F-911.1 General. Explosion control in new construction and existing buildings with a change of occupancy classification shall be provided in the following locations:***

- 1. Where a structure, room or space is occupied for purposes involving explosion hazards as identified in Table 911.1.***
- 2. Where quantities of hazardous materials specified in Table 911.1 exceed the maximum allowable quantities in Table 2703.1.1 (1).***

**Such areas shall be provided with explosion venting, explosion (deflagration) venting, explosion (deflagration) prevention systems, or barricades in accordance with this section and NFPA 69, or NFPA 495 as applicable. Deflagration venting shall not be utilized as a means to protect buildings from detonation hazards.**

\* \* \*

***F-911.5 Testing and maintenance. Explosion venting and explosion prevention systems and barricades shall be tested and maintained in accordance with NFPA 69. Testing and maintenance shall be performed by qualified persons. Records of testing and maintenance shall be maintained and available for inspection by the fire code official.***

## **SECTION F-912 FIRE DEPARTMENT CONNECTIONS**

**F-912.1 Installation. Fire department connections shall be installed in accordance with the NFPA standard applicable to the system design and shall comply with Sections F-912[.2].1.1 through F-912.6.]**

***F-912.1 Fire department connections. Fire department connections shall be in accordance with Section 912. Where more fire department connections have been installed on a building or structure than required by***

*this section the number shall not be reduced.*

*F-912.1.1 Hose connections. Fire department connections shall be based on the system demand and shall include one 2 1/2-inch (64 mm) inlet per every 250 gpm with have a minimum of two 2 1/2-inch (64 mm) internal threaded swivel fittings having National Hose standard threads with caps.*

*Exceptions:*

- 1. Manual dry standpipe systems with 6-inch (152 mm) or larger risers shall have three 2 1/2-inch (64 mm) internal threaded swivel fittings having National Hose standard threads with caps.*
- 2. Limited area sprinkler systems installed pursuant to Section F-903.3.5.1.1, in other than basements and stories without openings, are not required to have a fire department connection.*
- 3. National Fire Protection Association Standard 13R systems shall have a fire department connection with one 2-1/2-inch (64 mm) internal threaded swivel fitting have National Hose standard threads with a cap, and NFPA 13D systems are not required to have a fire department connection.*

**~~F~~-912.2 Location.** With respect to hydrants, driveways, buildings and landscaping, fire department connections shall be so located that fire apparatus and hose connected to supply the system will not obstruct access to the buildings for other fire apparatus. The location of fire department connections shall be approved by the fire chief.

**912.2.1 Visible location.** Fire department connections shall be located on the street side of buildings, fully visible and recognizable from the street or nearest point of fire department vehicle access or as otherwise approved by the fire chief.]

**~~F~~-912.2.2 Existing buildings.** On existing buildings, wherever the fire department connection is not visible to approaching fire apparatus, the fire department connection shall be indicated by an approved sign mounted on the street front or on the side of the building. Such sign shall have the letters “FDC” (Existing signs with the words sprinkler connection or standpipe connection or the words abbreviated are also acceptable.) at least 6 inches (152 mm) high and words in letters at least 2 inches (51 mm) high or an arrow to indicate the location. All such signs shall be subject to the approval of the fire [code official] ~~department.~~

***F-912.2 Location of fire department connections.*** *Fire department connections shall be located on the street side of buildings, fully visible and recognizable from the street or nearest point of fire department vehicle access.*

***Buildings constructed on or after January 1, 2013, shall have one of the required fire department connections located on or along the side of the building containing the main entrance to the building, or the location shall be approved in writing by the fire department.***

***Exception:*** *On existing buildings where the fire department connections are not located on the side of a building facing a street, a sign shall be mounted at the street or on the side of the building facing a street visible to approaching fire apparatus. The sign shall have the letters “FDC” at least 6 inches (152 mm) high and words in letters at least 2 inches (51 mm) high or an arrow to indicate the location. (Existing signs with the words sprinkler connection or standpipe connection or the words abbreviated are also acceptable.) The location of the sign shall be subject to the approval of the fire department.*

**F-912.3 Access.** Immediate access to fire department connections shall be maintained at all times and

without obstruction by fences, bushes, trees, walls or any other fixed or moveable object. Access to fire department connections shall be approved by the fire [chief] department.

Exception: Fences, where provided with an access gate equipped with a sign complying with the [legend] requirements of Section 912.4 and a means to open the gate during an [of] emergency operation. The gate and the means of emergency operation shall be approved by the fire [chief] department and maintained operational at all times.

**F-912.3.1 Locking fire department connection caps.** The fire [code official] department is authorized to require locking caps on fire department connections for water-based systems where the responding fire department carries appropriate key wrenches for removal.

**F-912.3.2 Clear space around connections.** A working space of not less than 36 inches (762 mm) in width, 36 inches (914 mm) in depth and 78 inches (1981 mm) in height shall be provided and maintained in front of and to the sides of wall-mounted fire department connections and around the circumference of free-standing fire department connections, except as otherwise required or approved by the fire [chief] department.

\* \* \*

**F-912.4 Fire department connection signs.** [A metal sign with raised letters at least 1 inch (25 mm) in size shall be mounted on all fire department connections serving automatic sprinklers, standpipes or fire pump connections. Such signs shall read: AUTOMATIC SPRINKLERS or STANDPIPES or TEST CONNECTION or a combination thereof as applicable. Where the fire department connection does not serve the entire building, a sign shall be provided indicating the portions of the building served.] A durable, weather resistant sign shall be mounted at each fire department connection. ~~The sign shall that indicates the type of system (sprinkler, standpipe or combined sprinkler and standpipe)-and where it is located in the building if not throughout.~~ Wording on signs indicating the type of system shall be a minimum 1-inch (25 mm) high. Other information shall be a minimum 1/2-inch (13 mm) high.

~~Where a sprinkler system is not installed throughout a building, the floor or floors where the sprinklers are installed shall be indicated on the sign.~~

~~Where standpipe risers are not interconnected, the sign shall indicate in which stairway the standpipe riser that the connection feeds is located. The sign shall also indicate the pressure required at the fire department connection to deliver the system demand.~~

~~Where a fire department connection services multiple buildings, structures or locations, the sign shall indicated the buildings, structures or locations served.~~

**F-912.4.1 Sprinkler system not throughout building.** Where a sprinkler system is not installed throughout a building, the floor or floors where the sprinklers are installed shall be indicated on the sign.

**F-912.4.2 Standpipes not interconnected.** Where standpipes are not interconnected, the sign shall indicate in which stairway the standpipe that the fire department connection feeds is located.

**F-912.4.3 Standpipes not in each exit stairway.** Where standpipes are not installed in each exit stairway, the sign shall indicate in which exit stairways the standpipes are located.

**F-912.4.4 Fire department connection services multiple buildings.** Where a fire department connection

*services multiple buildings, structures or locations, the sign shall indicate the buildings, structures or locations served.*

**F-912.5 Backflow protection.** The potable water supply to automatic sprinkler and standpipe systems shall be protected against backflow as required by the [International] *Philadelphia* Plumbing Code.

\* \* \*

## SECTION ~~F~~-913 FIRE PUMPS

**F-913.1 Fire pumps [General].** Where provided, fire pumps shall be [installed] *maintained and tested* in accordance with this section [and NFPA 20].

**F-913.2 Protection against interruption of service.** *Where* [T]the fire pump, driver, and controller [shall be] *are* protected in accordance with NFPA 20 against possible interruption of service through damage caused by explosion, fire, flood, earthquake, rodents, insects, windstorm, freezing, vandalism and other adverse conditions, *the protection shall be maintained.*

**F-913.2.1 Protection of fire pump rooms.** [Rooms w]Where fire pumps are [located shall be] separated from [all] other areas of the building [in accordance with Section 913.2.1 of the International Building Code], *the rating of the separation shall be maintained. Penetrations of floor, walls and ceiling in the room shall be sealed with a fire stopping material to maintain the rating of the room.*

\* \* \*

**[913.3.1 Engine manufacturer's recommendation.** Temperature of the pump room, pump house or area where engines are installed shall never be less than the minimum recommended by the engine manufacturer. The engine manufacturer's recommendations for oil heaters shall be followed.]

**F-913.4 Valve supervision.** Where [provided,] the fire pump suction, discharge [and] or bypass valves, [and] or the isolation valves on the backflow prevention device or assembly [shall be] *are* supervised open by one of the following methods *the supervision shall be maintained.*

1. Central-station, proprietary or remote-station signaling service.
2. Local signaling service that will cause the sounding of an audible signal at a constantly attended location.
3. Locking valves open.
4. Sealing of valves and approved weekly recorded inspection where valves are located within fenced enclosures under the control of the owner.

**F-913.4.1 Test outlet valve supervision.** Fire pump test outlet valves [shall be] supervised in the closed position *shall be maintained.*

\* \* \*

**[913.5.1 Acceptance test. Acceptance testing shall be done in accordance with the requirements of NFPA 20.]**

\* \* \*

*F-913.5.5 Lack of suction pressure during ~~the~~ **annual** 150 percent test. Where available suction supplies do not allow flow at 150 percent of the rated pump capacity during an annual pump test, the fire pump shall be operated at the maximum allowable discharge. This reduced capacity shall constitute acceptable test criteria, provided the pump is tested to a minimum of 100 percent of its rated capacity before imposing a 10 psi (69 kPa) suction pressure on the city water main.*

## **SECTION 914 FIRE PROTECTION BASED ON SPECIAL DETAILED REQUIREMENTS OF USE AND OCCUPANCY**

**(Delete Section in its Entirety and substitute the following)**

***F-914.1 General. Fire protection systems for special types of occupancies required by the current or a previous edition of the Philadelphia Building Code shall be maintained and tested in accordance with the applicable sections of Chapter 9.***

## **SECTION F-915 PERIODIC TESTING OF FIRE PROTECTION SYSTEMS**

*F-915.1 Periodic testing. Fire protection systems, standby/emergency generators and other emergency electrical systems shall be inspected, tested and maintenance performed in accordance with this code and the referenced standards. Annually the owner of each building that contains standby/emergency generators, automatic fire extinguishing systems, standpipe systems or fire alarm systems shall have such systems certified as operating properly by a person certified or licensed by the Department of Licenses and Inspections to provide such certifications in accordance with ~~regulations promulgated pursuant to this code~~ **Sections 901.10 and 915**. Inspection and testing certification forms shall be maintained on the property and made available for inspection upon the request of a fire code official. Systems with deficiencies shall be corrected within the annual certification time frame **(one year from last annual certification)** or comply with Section ~~F- 915.1.1~~.*

*Exceptions:*

- 1. Smoke alarms in residential occupancies provided that they are tested by the building owner in accordance with the manufacturer's instructions.*
- 2. Automatic sprinkler systems in one- and two-family dwellings.*
- 3. Battery-powered emergency lighting units shall be tested in accordance with Section ~~604.1.2.1~~.*
- 2.*

\* \* \*

*~~F-915.2 Consistency of required test dates. To ensure consistency of required tests for fire alarm, sprinkler and standpipe systems, tests shall be conducted in accordance with the dates indicated in Sections F-915.2.1 through F-915.2.5.~~*

*~~F-915.2.1 Dry pipe valves. Full flow tests of dry pipe valves shall be required in 2011 and every 3 years~~*

~~thereafter, except those protecting areas that are constantly maintained below a freezing temperature.~~

~~F-915.2.2 Standpipe pressure reducing valves. Flow tests of standpipe pressure reducing valves shall be required in 2010 and every 5 years thereafter.~~

~~F-915.2.3 Dry standpipe system hydrostatic test. Hydrostatic tests of dry standpipe systems and dry portions of wet standpipe systems shall be required in 2010 and every 5 years thereafter.~~

~~F-915.2.4 Standpipe flow test. Standpipe flow tests conducted at the hydraulically most remote hose connection shall be required in 2010 and every 5 years thereafter.~~

**F-915.2 Consistency of required test dates.** To ensure consistency of required tests for fire alarm, sprinkler and standpipe systems, where the maximum frequency exceeds one year (multi-year tests) tests shall be conducted in accordance with the dates indicated in Sections 915.2.1 through 915.2.4.

Where a test is performed during the 12 months preceding the next required multi-year test, the next required test need not be performed. Thereafter, tests shall be performed pursuant to the applicable schedules set forth in Sections 915.2.1 through 915.2.4.

**F-915.2.1 Maximum 3-year interval.** Where the code or referenced standard requires inspection, testing and/or maintenance at a maximum 3-year interval, such inspection, testing and/or maintenance shall be required in 2011 and every 3 years thereafter, except those water based systems protecting areas that are constantly maintained below a freezing temperature.

**F-915.2.2 Maximum 5-year interval.** Where the code or referenced standard requires inspection, testing and/or maintenance at a maximum 5-year interval, such inspection, testing and/or maintenance shall be required in 2010 and every 5 years thereafter.

**F-915.2.3 Maximum 10 year test.** Where the code or referenced standard requires inspection, testing and/or maintenance at a maximum 10-year interval, such inspection, testing and/or maintenance shall be required in 2010 and every 10 years thereafter.

~~F-915.2.5 4 Alternate year smoke detector sensitivity testing. Alternate year sensitivity testing shall begin in the odd-numbered years. When the one-year sensitivity test occurs in an even-numbered year, the next sensitivity test is not due until the second subsequent odd-numbered year. Results of sensitivity tests shall be listed on the annual inspection and certification form.~~

\* \* \*

~~F-915.3.1 Audibility in Group R-2 occupancies. In Group R-2 occupancies where the audibility of existing fire alarm notification devices installed prior to March 1, 1991, does not meet the required audibility within each dwelling unit, the installation of supplemental sounding devices within such dwelling units shall be acceptable as herein provided. The supplemental system shall be a power line carrier system with sounding devices installed in the dwelling units connected to the building's alternating current (ac) power supply. The following shall be required in order for the supplemental sounding device system to be accepted:~~

~~1. Underwriters Laboratories (UL) listed interface(s) to the existing approved fire alarm system shall accept a dry contact closure or a 6-30 volt ac or direct current (dc) input as a trigger for supplemental alarm transmission. Transmission shall consist of a modulated radio frequency (RF) which shall~~

~~be determined by a tone/code definition.~~

~~2. UL listed amplifier(s) shall couple the modulated RF signal generated by the interface onto all phases of the electrical distribution system and shall have the ability to be adjusted to the impedance of the electrical system in order to maximize modulated RF signal amplitude.~~

~~3. UL listed ac plug-in receiver(s) shall detect and decode the modulated RF signal as well as receive power from the ac electrical line(s). When the modulated RF signal is present, an internal 85-decibel (dBA) at 10 feet sounding device shall be activated.~~

~~4. Interfaces and amplifiers shall be housed in tamper-proof enclosures.~~

~~5. All interconnecting wire from the alarm panel, interface(s), amplifier(s), overload protective devices and electrical connections to the existing electrical system shall be in conduit using tamper-proof boxes as needed.~~

~~6. All overload protective devices such as fused safety switches or circuit breakers shall be locked in the "ON" position.~~

~~7. Screw tab retainers on the receivers (supplemental sounding devices) shall be present and the use of tamper-proof screws shall be required to reduce the chance of removal of the receiver(s) from the ac outlet.~~

~~8. Installation shall be in accordance with the manufacturer's specifications and instructions.~~

***F-915.4 Audibility of fire alarm systems. The audibility of fire alarm system notification appliances in existing buildings shall be in accordance with Section 907.3.***

***Exception: In Group R-2 occupancies where the audibility of the existing fire alarm notification devices installed prior to March 1, 1991, did not meet the required audibility in all areas of the building and supplemental sounding devices were installed to meet the audibility requirements of Section 907.3, the supplemental sounding devices are permitted to be maintained or replaced with system alarm notification appliances. Audible alarm notification appliances installed in Group R-2 occupancies prior to March 1, 1991, that do not meet the audibility requirements of Section 907.3 on or after January 1, 2013, shall be replaced with system alarm notification appliances that meet the requirements of Section 907.3.***

## CHAPTER 10

### MEANS OF EGRESS

#### SECTION 1001 [ADMINISTRATION] GENERAL

**[1001.1 General. Buildings or portions thereof shall be provided with a means of egress system as required by this chapter. The provisions of this chapter shall control the design, construction and arrangement of means of egress components required to provide an approved means of egress from structures and portions thereof. Sections 1003 through 1029 shall apply to new construction. Section 1030 shall apply to existing buildings.]**

**Exception:** Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress and their accessory structures shall comply with the International Residential Code.]

*F-1001.1 Scope. Existing buildings or portions thereof shall be provided with a means of egress system as required by this chapter. The provisions of this chapter shall control the arrangement and maintenance of means of egress components required to provide an approved means of egress from structures and portions thereof. Where the means of egress of a building exceed the requirements of this chapter because of compliance with the current or a previous edition of the Philadelphia Building Code, they shall be maintained.*

\* \* \*

## [{B}] SECTION 1003 GENERAL MEANS OF EGRESS

(Delete Section in its entirety and substitute the following)

*F-1003.1 Applicability. Means of egress in existing buildings shall comply with Section 1003. The general requirements specified in Section 1003 shall apply to all three elements of the means of egress system, in addition to those specific requirements for the exit access, the exit and the exit discharge detailed elsewhere in this chapter.*

*F-1003.2 Minimum required means of egress width. The means of egress width in existing buildings shall not be less than that required by the code under which the building was constructed, but at a minimum it shall not be less than that required by this section. The total width of means of egress in inches (mm) shall not be less than the total occupant load served by the means of egress multiplied by the factors in Table 1003.2 and not less than that specified elsewhere in Section 1003. Multiple means of egress shall be sized such that the loss of any one means of egress shall not reduce the available capacity to less than 50 percent of the required capacity. The maximum capacity required from any story of a building shall be maintained to the termination of the means of egress.*

**TABLE 1003.2**

### **EGRESS WIDTH PER OCCUPANT SERVED**

<b>OCCUPANCY</b>	<b>WITHOUT SPRINKLER SYSTEM</b>		<b>WITH SPRINKLER SYSTEM</b>	
	<i>Stairways (inches per occupant)</i>	<i>Other egress components (inches per occupant)</i>	<i>Stairways (inches per occupant)</i>	<i>Other egress components (inches per occupant)</i>
<i>Occupancies other than those listed below</i>	0.3	0.2	0.2	0.15
<i>Hazardous: H-1, H-2, H-3 and H-4</i>	Not permitted	Not permitted	0.3	0.2
<i>Institutional: I-2</i>	Not permitted	Not permitted	0.3	0.2



**For SI:**        *1 inch = 25.4 mm.*

*a. Buildings equipped throughout with an automatic sprinkler system in accordance.*

***F-1003.3 Obstruction of means of egress. The means of egress from every point in a building to the public way shall not be reduced, blocked, locked or obstructed.***

***F-1003.3.1 Exterior means of egress. Exterior means of egress in existing buildings shall be maintained and provide a clear pathway, of at least 36 inches, to a public way.***

***F-1003.4 Means of egress doors. Means of egress doors in existing buildings shall be readily openable from the egress side without the use of a key or special knowledge or effort.***

***Exception: As permitted by Section 1008.***

***F-1003.5 Readily distinguishable doors. Means of egress doors in existing buildings shall be readily distinguishable from the adjacent construction and finishes such that the doors are easily recognizable as doors. Mirrors or similar reflecting materials shall not be used on means of egress doors. Means of egress doors shall not be concealed by curtains, drapes, decorations or similar materials.***

## **SECTION F-1004 OCCUPANT LOAD**

***F-1004.3.1 Posting of outdoor assembly spaces. Outdoor areas of Group A occupancy on piers, decks, or similar spaces in which the means of egress is restricted by return through a building, passageways, gates, or similar components such that the immediate dispersal of occupants is not possible, shall be posted for the maximum occupant load based on the available width of such egress restrictions at 0.2 inches (5 mm) per occupant, but not exceeding an occupant density of five square feet per person.***

**(Delete Section in its entirety and substitute the following)**

***F-1004.1 Occupant load. The occupant load of rooms and spaces in existing buildings shall be in accordance with the requirements of the Philadelphia Building Code in effect at the time the building was constructed or a change of occupancy classification occurred in the building.***

***F-1004.2 Posting of occupant load sign. Every room or space that is an assembly occupancy (50 or more) shall have the occupant load of the room or space, as determined by the Department of Licenses and Inspections, posted on a sign in a conspicuous place, near the main exit or exit access doorway from the room or space.***

***Exception: The nave or worship area of a place of worship with fixed seating.***

## **[{B}]SECTION 1005 [EGRESS WIDTH]CORRIDORS AND AISLES**

**[1005.1 Minimum required egress width. The means of egress width shall not be less than required by this section. The total width of means of egress in inches (mm) shall not be less than the total occupant load served by the means of egress multiplied by 0.3 inches (7.62 mm) per occupant for stairways and by 0.2 inches (5.08 mm) per occupant for other egress components. The width shall not be less than specified elsewhere in this code. Multiple means of egress shall be sized such that the loss of any one of egress shall not reduce the available capacity to less than 50 percent of the required capacity. The**

maximum capacity required from any story of a building shall be maintained to the termination of the means of egress.

**Exception:** Means of egress complying with Section 1028.

**1005.2 Door encroachment.** Doors, when fully opened, and handrails shall not reduce the required means of egress width by more than 7 inches (178 mm). Doors in any position shall not reduce the required width by more than one-half. Other nonstructural projections such as trim and similar decorative features shall be permitted to project into the required width a maximum of 1½ inches (38 mm) on each side.

**Exception:** The restrictions on a door swing shall not apply to doors within individual dwelling units and sleeping units of Group R-2 and dwelling units of Group R-3.

**1005.3 Door hardware encroachment.** Surface-mounted latch release hardware shall be exempt from inclusion in the 7-inch (178 mm) maximum projection requirement of Section 1005.2 when:

1. The hardware is mounted to the side of the door facing the corridor width when the door is in the open position; and
2. The hardware is mounted not less than 34 inches (865 mm) or more than 48 inches (1220 mm) above the finished floor.]

***F-1005.1 Corridors and aisles.*** Corridors and aisles in existing buildings shall be in accordance with Section 1005. The required width of corridors and aisles shall not be reduced or obstructed.

***F-1005.1.1 Corridors.*** Corridors serving an occupant load greater than 30 and any occupant load in high-rise buildings of Group R-2 occupancy that have openings therein shall provide an effective barrier to resist the movement of smoke. Transoms, louvers, doors and other openings shall be kept permanently closed or self-closing.

***Exceptions:***

1. Corridors in occupancies other than in Group H, which are equipped throughout with an approved automatic sprinkler system.
2. Patient room doors in corridors in occupancies in Group I-2 where smoke barriers are provided in accordance with the Philadelphia Building Code.
3. Corridors in occupancies in Group E where each room utilized for instruction or assembly has at least one-half of the required means of egress doors opening directly to the exterior of the building at ground level.
4. Corridors that are in accordance with the Philadelphia Building Code.

***F-1005.1.2 Corridor openings.*** Openings in corridor walls shall comply with the requirements of the Philadelphia Building Code.

***Exceptions:***

1. Where 20-minute fire door assemblies are required, solid wood doors at least 1.75 inches (44 mm)

*thick or insulated steel doors are allowed.*

- 2. Openings protected with fixed wire glass set in steel frames.*
- 3. Openings covered with 0.5-inch (12.7 mm) gypsum wallboard or 0.75-inch (19.1 mm) plywood on the room side.*
- 4. Opening protection is not required when the building is equipped throughout with an approved automatic sprinkler system.*

***F-1005.1.3 Corridor fire resistance rating.*** *Where a corridor was constructed as a fire resistance rated assembly, the rating shall be maintained. All penetrations shall be sealed with fire stopping material having the fire resistance rating of the floor-wall or wall-ceiling assembly penetrated.*

***F-1005.1.4 Dead ends.*** *Where more than one exit or exit access doorway is required, the exit access shall be arranged such that dead ends do not exceed the limits specified in Table 1005.1.4.*

***Exception:*** *A dead-end passageway or corridor shall not be limited in length where the length of the dead-end passageway or corridor is less than 2.5 times the least width of the dead-end passageway or corridor.*

**TABLE 1005.1.4**  
**COMMON PATH, DEAD-END AND TRAVEL DISTANCE LIMITS (by occupancy)**

OCCUPANCY	COMMON PATH LIMIT		DEAD-END LIMIT		TRAVEL DISTANCE LIMIT	
	Unsprinklered (feet)	Sprinklered (feet)	Unsprinklered (feet)	Sprinklered (feet)	Unsprinklered (feet)	Sprinklered (feet)
<b>Group A</b>	20/75 <sup>a</sup>	20/75 <sup>a</sup>	20 <sup>b</sup>	20 <sup>b</sup>	200	250
<b>Group B</b>	75	100	50	50	200	250
<b>Group E</b>	75	75	20	50	200	250
<b>Group F-1, S-1<sup>d</sup></b>	75	100	50	50	200	250
<b>Group F-2, S-2<sup>d</sup></b>	75	100	50	50	300	400
<b>Group H-1</b>	25	25	0	0	75	75
<b>Group H-2</b>	50	100	0	0	75	100
<b>Group H-3</b>	50	100	20	20	100	150
<b>Group H-4</b>	75	75	20	20	150	175
<b>Group H-5</b>	75	75	20	50	150	200
<b>Group I-1</b>	75	75	20	50	200	250
<b>Group I-2 (Health Care)</b>	NR <sup>e</sup>	NR <sup>e</sup>	NR	NR	150	200 <sup>c</sup>
<b>Group I-3 (Detention and Correctional - Use Conditions II, III, IV, V)</b>	100	100	NR	NR	150 <sup>c</sup>	200 <sup>c</sup>
<b>Group I-4 (Day Care Center)</b>	NR	NR	20	20	200	250
<b>Group M (Covered Mall)</b>	75	100	50	50	200	400

<b>Group M (Mercantile)</b>	<b>75</b>	<b>100</b>	<b>50</b>	<b>50</b>	<b>200</b>	<b>250</b>
<b>Group R-1 (Hotels)</b>	<b>75</b>	<b>75</b>	<b>50</b>	<b>50</b>	<b>200</b>	<b>250</b>
<b>Group R-2 (Apartments)</b>	<b>75</b>	<b>75</b>	<b>50</b>	<b>50</b>	<b>200</b>	<b>250</b>
<b>Group R-3 (One- and Two-Family)</b>	<b>NR</b>	<b>NR</b>	<b>NR</b>	<b>NR</b>	<b>NR</b>	<b>NR</b>
<b>Group R-4 (Residential Care/Assisted Living)</b>	<b>NR</b>	<b>NR</b>	<b>NR</b>	<b>NR</b>	<b>NR</b>	<b>NR</b>
<b>Group U</b>	<b>75</b>	<b>75</b>	<b>20</b>	<b>50</b>	<b>200</b>	<b>250</b>

For SI: 1foot = 304.8 mm.

- a. 20 feet for common path serving 50 or more persons, 75 feet for common path serving less than 50 persons.
  - b. See Section 1028.9.5 for dead end aisles in Group A occupancies.
  - c. This dimension is for the total travel distance, assuming incremental portions have fully utilized allowable maximums. For travel distances within the room, and from the room exit access door to the exit, see the appropriate occupancy chapter.
  - d. See the International Building Code for special requirements on spacing of doors in aircraft hangars.
  - e. Any patient sleeping room, or any suite that includes patient sleeping rooms, of more than 1000 square feet (93 m<sup>2</sup>) shall have at least two exit access doors placed a distance apart equal to not less than one-third of the length of the maximum overall diagonal dimension of the patient sleeping room or suite to be served, measured in a straight line between exit access doors.
- NR = No requirements.

**F-1005.1.5 Exit access travel distance.** Exits shall be located so that the length of exit access travel, measured from the most remote point to an approved exit along the natural and unobstructed path of egress travel, does not exceed the distances given in Table 1005.1.4.

**F-1005.1.6 Common path of egress travel.** The path of egress travel shall not exceed the distances given in Table 1005.1.4.

**F-1005.2 Aisles.** The minimum clear width of aisles in existing buildings shall be as follows:

1. Forty-two inches (1067 mm) for aisle stairs having seating on each side.

*Exception: Thirty-six inches (914 mm) where the aisle serves less than 50 seats.*

2. Thirty-six inches (914 mm) for stepped aisles having seating on only one side.

*Exception: Thirty inches (760 mm) for catchment areas serving not more than 60 seats.*

3. Twenty inches (508 mm) between a stepped aisle handrail or guard and seating when the aisle is subdivided by the handrail.

4. Forty-two inches (1067 mm) for level or ramped aisles having seating on both sides.

*Exception: Thirty-six inches (914 mm) where the aisle serves less than 50 seats.*

5. Thirty-six inches (914 mm) for level or ramped aisles having seating on only one side.

*Exception: Thirty inches (760 mm) for catchment areas serving not more than 60 seats.*

6. Twenty-three inches (584 mm) between a stepped stair handrail and seating where an aisle does not serve more than five rows on one side.

## **[{B}]SECTION 1006 MEANS OF EGRESS ILLUMINATION**

\* \* \*

**[1006.3 Illumination emergency power. The power supply for means of egress illumination shall normally be provided by the premises' electrical supply.**

**In the event of power supply failure, an emergency electrical system shall automatically illuminate all of the following areas:**

- 1. Aisles and unenclosed egress stairways in rooms and spaces that require two or more means of egress.**
- 2. Corridors, exit enclosures and exit passageways in buildings required to have two or more exits.**
- 3. Exterior egress components at other than their levels of exit discharge until exit discharge is accomplished for buildings required to have two or more exits.**
- 4. Interior exit discharge elements, as permitted in Section 1027.1, in buildings required to have two or more exits.**
- 5. Exterior landings as required by Section 1008.1.6 for exit discharge doorways in buildings required to have two or more exits.**

**The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Chapter 27 of the International Building Code.**

**1006.4 Performance of system. Emergency lighting facilities shall be arranged to provide initial illumination that is at least an average of 1 foot-candle (11 lux) and a minimum at any point of 0.1 foot-candle (1 lux) measured along the path of egress at floor level. Illumination levels shall be permitted to decline to 0.6 foot-candle (6 lux) average and a minimum at any point of 0.06 foot-candle (0.6 lux) at the end of the emergency lighting time duration. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded.]**

***F-1006.3 Illumination emergency power. The power supply for means of egress illumination shall normally be provided by the premises' electrical supply. In the event of power supply failure, illumination shall be automatically provided from an emergency system for the following occupancies where such occupancies require 2 or more means of egress:***

- 1. Group A - having 50 or more occupants.***

***Exception: Assembly occupancies used exclusively as a place of worship and having an occupant less than 300.***

- 2. Group B - buildings 3 or more stories in height, buildings with 100 or more occupants above or below a level of exit discharge serving the occupants or buildings with 1,000 or more total occupants.***
- 3. Group E in interior stairs, corridors, windowless areas with student occupancy, shops and laboratories.***
- 4. Group F - having more than 100 occupants.***

***Exception: Buildings used only during daylight hours which are provided with windows for natural light in accordance with the Philadelphia Building Code.***

**5. Group I.**

**6. Group M.**

*Exception: Buildings less than 3,000 square feet (279 m<sup>2</sup>) in gross sales area on one story only, excluding mezzanines.*

**7. Group R-1.**

*Exception: Where each sleeping unit has direct access to the outside of the building at grade.*

**8. Group R-2.**

*Exception: Where each dwelling unit or sleeping unit has direct access to the outside of the building at grade.*

**9. Group R-4.**

*Exception: Where each sleeping unit has direct access to the outside of the building at ground level.*

**F-1006.3.1 Emergency power duration and installation.** *In other than Group I-2, the emergency power system shall provide power for not less than 60 minutes and consist of storage batteries, unit equipment or an on-site generator. In Group I-2, the emergency power system shall provide power for not less than 90 minutes and consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system necessary to comply with this section shall be in accordance with Philadelphia Building Code.*

**[B]}SECTION 1007 [ACCESSIBLE MEANS OF EGRESS] EXIT SIGNS**

**(Delete Section in its entirety and substitute the following)**

**F-1007.1 Exit signs.** *Exit and exit access doors in existing buildings shall be marked by an approved exit sign readily visible from any direction of egress travel. The path of egress travel to exits and within exits shall be marked by readily visible exit signs to clearly indicate the direction of egress travel in cases where the exit or the path of egress travel is not immediately visible to the occupants. Intervening means of egress doors within exits shall be marked by exit signs. Exit sign placement shall be such that no point in an exit access corridor or exit passageway is more than 100 feet (30 480 mm) or the listed viewing distance for the sign, whichever is less, from the nearest visible exit sign.*

**Exceptions:**

- 1. Exit signs are not required in rooms or areas that require only one exit or exit access.**
- 2. Main exterior exit doors or gates that are obviously and clearly identifiable as exits need not have exit signs where approved by the fire code official.**
- 3. Exit signs are not required in occupancies in Group U and individual sleeping units or dwelling units**

*in Group R-1, R-2 or R-3.*

*4. Exit signs are not required in dayrooms, sleeping rooms or dormitories in occupancies in Group I-3.*

*5. In occupancies in Groups A-4 and A-5, exit signs are not required on the seating side of vomitories or openings into seating areas where exit signs are provided in the concourse that are readily apparent from the vomitories. Egress lighting is provided to identify each vomitory or opening within the seating area in an emergency.*

***F-1007.2 Exit sign illumination. Exit signs shall be illuminated at all times, including times during the loss of primary electrical power to the room or space. Exit signs shall be internally or externally illuminated. The face of an exit sign illuminated from an external source shall have an intensity of not less than five foot-candles (54 lux). Internally illuminated signs shall provide equivalent luminance and be listed for the purpose.***

***Exception: Approved self-luminous signs that provide evenly illuminated letters shall have a minimum luminance of 0.06 foot-lamberts (0.2 1 cd/m<sup>2</sup>).***

***F-1007.2.1 Power source. Where emergency illumination is required by Section 1006.3, exit signs shall be visible under emergency illumination conditions.***

***Exception: Approved signs that provide continuous illumination independent of external power sources are not required to be connected to an emergency electrical system.***

***F-1007.3 Lack of exit signs. Areas of buildings not in compliance with this section shall have exit signs installed in accordance with the Philadelphia Building Code.***

## SECTION F-1008 DOORS, GATES AND TURNSTILES

~~\_\_\_\_\_~~

~~F-1008.1.9.3 Locks and latches. Locks and latches shall be permitted to prevent operation of doors where any of the following exists:~~

~~1. Places of detention or restraint.~~

~~2. In buildings in occupancy Group A having an occupant load of 300 or less, Groups B, F, M and S, and in places of religious worship, the main exterior door or doors are permitted to be equipped with key-operated locking devices from the egress side provided that they are in accordance with 2.1 through 2.3.~~

~~2.1. The locking device is readily distinguishable as locked;~~

~~2.2. A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background; and~~

~~2.3. The use of the key-operated locking device is revokable by the building official for due cause.~~

~~3. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no doorknob or surface-~~

mounted hardware.

4. Doors from individual dwelling or sleeping units of Group R occupancies having an occupant load of 10 or less are permitted to be equipped with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool.

5. Fire doors after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.

6. *Where an elevator lobby is separated from the remainder of the floor by partitions and doors and where the elevator lobby does not provide egress to the required exits, the doors in the lobby partitions are permitted to be locked from the lobby side provided that the doors conform to Section F-1008.1.4.4 or Section F-1008.1.9.7.*

\* \* \*

F-1008.1.9.10 Stairway doors. Interior stairway means of egress doors shall be openable from both sides without the use of a key or special knowledge or effort.

Exceptions:

1. Stairway discharge doors shall be openable from the egress side and shall only be locked from the opposite side.

2. This section shall not apply to doors arranged in accordance with Section 403.5.3 of the International Building Code.

3. [In s] Stairway [s serving not more than four stories,] doors are permitted to be locked from the side opposite the egress side, provided they are openable from the egress side and capable of being unlocked simultaneously without unlatching upon [a signal from the fire command center, if present, or a signal by emergency personnel from a single location inside the main entrance to the building] *the activation of the fire alarm system, by a signal from a constantly attended location or a power failure to the locking device.*

\* \* \*

(Delete Section in its entirety and substitute the following)

***F-1008.1 Means of egress doors, gates and turnstiles. Means of egress doors, gates and turnstiles in existing buildings and structures shall be in accordance with the requirements of Section 1008.***

***F-1008.2 Doors. The minimum width of each door opening in an existing building shall be sufficient for the occupant load thereof and shall provide a clear width of not less than 28 inches (711 mm). Where this section requires a minimum clear width of 28 inches (711 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 28 inches (711 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. Means of egress doors in an occupancy in Group I-2 used for the movement of beds shall provide a clear width not less than 41.5 inches (1054 mm). The height of doors shall not be less than 80 inches (2032 mm).***

***Exceptions:***

***1. The minimum and maximum width shall not apply to door openings that are not part of the required means of egress in occupancies in Groups R-2 and R-3.***



- 2. Door openings to storage closets less than 10 square feet (0.93 m<sup>2</sup>) in area shall not be limited by the minimum width.*
- 3. Width of door leafs in revolving doors that comply with Section 1008.3 shall not be limited.*
- 4. Door openings within a dwelling unit shall not be less than 78 inches (1981 mm) in height.*
- 5. Exterior door openings in dwelling units, other than the required exit door, shall not be less than 76 inches (1930 mm) in height.*
- 6. Exit access doors serving a room not larger than 70 square feet (6.5 m<sup>2</sup>) shall be not less than 24 inches (610 mm) in door width.*

*F-1008.2.1 Door swing. Doors in the means of egress in existing buildings shall swing in the direction of egress travel where serving an occupant load of 50 or more or a Group H occupancy.*

*Exception: Horizontal sliding doors.*

*F-1008.2.2 Door opening force. The opening force for interior side-swinging doors without closers in existing buildings shall not exceed a 5-pound (22 N) force. For other side-swinging, sliding and folding doors, the door latch shall release when subjected to a force of not more than 15 pounds (66 N). The door shall be set in motion when subjected to a force not exceeding 30 pounds (133 N). The door shall swing to a full-open position when subjected to a force of not more than 50 pounds (222 N). Forces shall be applied to the latch side.*

*F-1008.2.3 Door operation and locking devices. Doors in the means of egress of existing buildings shall be readily openable from the egress side without the use of a key or special knowledge, except as permitted by Sections 1008.2.3.1 through 1008.2.3.8.*

*F-1008.2.3.1 Locks and latches. Approved locks and latches shall be permitted to prevent operation of doors where any of the following conditions exists:*

*1. Places of detention or restraint.*

*2. In buildings in occupancy Group A having an occupant load of 300 or less, Groups B, F, M and S, and in places of religious worship, the main exterior door or doors are permitted to be equipped with key-operated locking devices from the egress side provided that they are in accordance with 2.1 through 2.3.*

*2.1. The locking device is readily distinguishable as locked.*

*2.2. A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background.*

*2.3. The use of the key-operated locking device is revocable by the fire code official for due cause.*

- 3. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware.*
- 4. Doors from individual dwelling or sleeping units of Group R occupancies having an occupant load of 10 or less are permitted to be equipped with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool.*
- 5. Fire doors after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.*
- 6. Where an elevator lobby is separated from the remainder of the floor by partitions and doors and where the elevator lobby does not provide access to the required exits, the doors in the lobby partitions are permitted to be locked from the lobby side provided that the doors conform to Section 1008.2.3.3 (access controlled doors) or 1008.2.3.4 (delayed egress doors).*
- 7. Exit stairway doors in accordance with Section 1014.*
- 8. Egress door locking arrangements in accordance with the current or a previous edition of the Philadelphia Building Code.*

***F-1008.2.3.2 Bolts locks.*** *Manually operated flush bolts or surface bolts on means of egress doors are not permitted.*

***Exceptions:***

- 1. On the inactive leaf of a pair of doors and the inactive leaf contains no doorknobs, panic bars or similar operating hardware.*
- 2. As permitted by Section 1008.2.3.1.*

***F-1008.2.3.3 Access-controlled egress doors.*** *The entrance doors in a means of egress in buildings with an occupancy in Group A, B, E, I-2, M, R-1 or R-2 and entrance doors to tenant spaces in occupancies in Groups A, B, E, I-2, M R-1 and R-2 are permitted to be equipped with an approved entrance and egress access control system which shall be installed in accordance with all of the following criteria:*

- 1. A sensor shall be provided on the egress side arranged to detect an occupant approaching the doors. The doors shall be arranged to unlock by a signal from or loss of power to the sensor.*
- 2. Loss of power to that part of the access control system which locks the doors shall automatically*

*unlock the doors.*

- 3. The doors shall be arranged to unlock from a manual unlocking device located within 5 feet (1524 mm) of the secured doors. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads "PUSH TO EXIT." When operated, the manual unlocking device shall result in direct interruption of power to the lock - independent of the access control system electronics - and the doors shall remain unlocked for a minimum of 30 seconds.*
- 4. Activation of the building fire alarm system, if provided, shall automatically unlock the doors, and the doors shall remain unlocked until the fire alarm system has been reset.*
- 5. Activation of the building automatic sprinkler or fire detection system, if provided, shall automatically unlock the doors. The doors shall remain unlocked until the fire alarm system has been reset.*
- 6. Entrance doors in buildings with an occupancy in Group A, B, E or M shall not be secured from the egress side during periods that the building is open to the general public.*

*F-1008.2.3.4 Delayed egress locks. Delayed egress locks shall be permitted to be installed on doors serving any occupancy except Group A, E and H occupancies in buildings that are equipped throughout with an automatic sprinkler system or an automatic smoke or heat detection system, provided that the doors unlock in accordance with Items 1 through 6 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an exit.*

- 1. The doors unlock upon actuation of the sprinkler system or automatic fire detection system.*
- 2. The doors unlock upon loss of power controlling the lock or lock mechanism.*
- 3. The door locks shall have the capability of being unlocked by a signal from the fire command center or a constantly attended location.*
- 4. The initiation of an irreversible process which will release the latch in not more than 15 seconds when a force of not more than 15 pounds (67 N) is applied for 1 second to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only.*

*Exception: Where approved, a delay of not more than 30 seconds is permitted.*

- 5. A sign shall be provided on the door located above and within 12 inches (305 mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS.*

**6. Emergency lighting shall be provided at the door.**

***F-1008.2.3.5 Electromagnetically locked egress doors. Doors in the means of egress that are not otherwise required to have panic hardware in buildings with an occupancy in Group A, B, E, M, R-1 or R-2 and doors to tenant spaces in Group A, B, E, M, R-1 or R-2 shall be permitted to be electromagnetically locked if equipped with listed hardware that incorporates a built-in switch and meets all of the following requirements:***

- 1. The hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.***
- 2. The hardware is capable of being operated with one hand.***
- 3. Operation of the hardware releases to the electromagnetic lock and unlocks the door immediately.***
- 4. Loss of power to the hardware automatically unlocks the door.***

***F-1008.2.3.6 Power-operated doors. Where means of egress doors are operated by power, such as doors with a photoelectric-actuated mechanism to open the door upon the approach of a person, or doors with power-assisted manual operation, the design shall be such that in the event of power failure, the door is capable of being opened manually to permit means of egress travel or closed where necessary to safeguard means of egress. The forces required to open these doors manually shall not exceed those specified in Section 1008.2.2, except that the force to set the door in motion shall not exceed 50 pounds (220 N). The door shall be capable of swinging from any position to the full width of the opening in which such door is installed when a force is applied to the door on the side from which egress is made.***

***Exceptions:***

- 1. Occupancies in Group I-3.***
- 2. Horizontal sliding doors complying with Section 1008.2.3.7.***
- 3. For a biparting door in the emergency breakout mode, a door leaf located within a multiple-leaf opening shall be exempt from the 32-inch (813 mm) single-leaf requirement of Section 1008.1.1, provided a minimum 32-inch (813 mm) clear opening is provided when the two biparting leaves meeting in the center are broken out.***

***1008.2.3.7 Horizontal sliding doors. In other than Group H occupancies, horizontal sliding doors shall be permitted to be a component of a means of egress when in accordance with all of the following requirements:***

- 1. The doors shall be power operated and shall be capable of being operated manually in the event of power failure.*
- 2. The doors shall be openable by a simple method from both sides without special knowledge or effort.*
- 3. The force required to operate the door shall not exceed 30 pounds (133 N) to set the door in motion and 15 pounds (67 N) to close the door or open it to the minimum required width.*
- 4. The door shall be openable with a force not to exceed 15 pounds (67 N) when a force of 250 pounds (1100 N) is applied perpendicular to the door adjacent to the operating device.*
- 5. The door assembly shall comply with the applicable fire protection rating and, where rated, shall be self-closing or automatic closing by smoke detection.*
- 6. The door assembly shall have an integrated standby power supply.*

*F-1008.2.3.8 Special locking arrangements in Group I-2. Approved delayed egress locks shall be permitted in a Group I-2 occupancy where the clinical needs of persons receiving care require such locking. Delayed egress locks shall be permitted in such occupancies where the building is equipped throughout with an automatic sprinkler system or an automatic smoke or heat detection system, provided that the doors unlock in accordance with Items 1 through 6 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an exit.*

- 1. The doors unlock upon actuation of the sprinkler system or automatic fire detection system.*
- 2. The doors unlock upon loss of power controlling the lock or lock mechanism.*
- 3. The door locks shall have the capability of being unlocked by a signal from the fire command center, a nursing station or a constantly attended location.*
- 4. The procedures for the operation(s) of the unlocking system shall be described and approved as part of the emergency planning and preparedness required by Chapter 4.*
- 5. All clinical staff shall have the keys, codes or other means necessary to operate the locking devices.*
- 6. Emergency lighting shall be provided at the door.*

*Exception: Items 1 through 3 shall not apply to doors to areas where persons, because of clinical needs, require restraint or containment as part of the function of a mental hospital.*

*F-1008.2.4 Panic and fire exit hardware. Doors serving rooms or spaces with an occupant load of 50 or*

*more in a Group A or E occupancy shall have panic hardware on the egress side of the door.*

*Exception: A main exit of a Group A occupancy in compliance with Section 1008.2.3.1, Item 2.*

**F-1008.2.5 Exit doors.** *Exit doors in existing buildings shall be self-closing and latching and the fire resistance rating required by the building code at the time of construction shall be maintained, but at a minimum shall have a fire resistance rating of one hour. Where a door is replaced in an existing exit enclosure, the replacement door shall be a labeled fire door with a fire resistance rating of at least one hour. Existing door frames shall be maintained in good repair with no gaps between the door and the door frame exceeding 1/2 inches (16 mm).*

**Exceptions:**

- 1. Where an existing exit enclosure is required to have a fire-resistance rating of up to one hour, existing self-closing and latching doors shall be accepted provided they are solid core wood with a minimum thickness of 1¾ inches (44 mm).*
- 2. Where an existing exit enclosure is required to have a one-hour fire-resistance rating, existing self-closing and latching panel doors (not hollow core) shall be accepted provided the panels on one side are filled with a non-combustible material (example: mineral wool) and the entire surface of the door on that side is covered with a sheathing to provide a minimum door thickness of 1¾ inches (44 mm) measured at the stiles.*

**F-1008.2.5.1 Exit stairways doors.** *Exit stairway doors in existing buildings shall be openable from both sides without the use of a key or special knowledge or effort.*

**Exceptions:**

- 1. Stairway discharge doors shall be openable from the egress side and shall only be locked from the opposite side.*
- 2. Exit doors arranged in accordance with the current or a previous edition of the Philadelphia Building Code.*
- 3. In stairways serving not more than 4 stories, doors are permitted to be locked on the side opposite egress (stairway side).*
- 4. In stairways serving more than 4 stories, the doors are permitted to be locked from the stairway side provided they unlock, but not un-latch, upon the loss of power to the door locks and are in accordance with A or B:*

*4.1 Unlock upon the activation of the building fire alarm system.*

*4.2 Unlocked remotely from a constantly attended location and telephones or a two-way*

*communication system connected to the constantly attended location are installed in the stairway at not less than every fifth floor.*

***F-1008.3 Revolving doors. Revolving doors in existing buildings shall comply with the following:***

- 1. A revolving door shall not be located within 10 feet (3048 mm) of the foot or top of stairs or escalators. A dispersal area shall be provided between the stairs or escalators and the revolving doors.***
- 2. The revolutions per minute for a revolving door shall not exceed those shown in Table F-1008.3.***
- 3. Each revolving door shall have a conforming side-hinged swinging door in the same wall as the revolving door and within 10 feet (3048 mm).***

***Exceptions:***

- 1. A revolving door is permitted to be used without an adjacent swinging door for street-floor elevator lobbies provided a stairway, escalator or door from other parts of the building does not discharge through the lobby and the lobby does not have any occupancy or use other than as a means of travel between elevators and a street.***
- 2. Existing revolving doors where the number of revolving doors does not exceed the number of swinging doors within 20 feet (6096 mm).***

***F-1008.3.1 Revolving door egress component. A revolving door used as a component of a means of egress shall comply with Section 1008.3 and all of the following conditions:***

- 1. Revolving doors shall not be given credit for more than 50 percent of the required egress capacity.***
- 2. Each revolving door shall be credited with not more than a 50-person capacity.***
- 3. Revolving doors shall be capable of being collapsed when a force of not more than 130 pounds (578 N) is applied within 3 inches (76 mm) of the outer edge of a wing.***

**TABLE 1008.3**

**REVOLVING DOOR SPEEDS**

<b>INSIDE DIAMETER</b>	<b>POWER- DRIVEN-TYPE SPEED CONTROL (RPM)</b>	<b>MANUAL- TYPE SPEED CONTROL (RPM)</b>

6'6"	11	12
7'0"	10	11
7'6"	9	11
8'0"	9	10
8'6"	8	9
9'0"	8	9
9'6"	7	8
10'0"	7	8

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm

**F-1008.4 Gates.** Gates in existing buildings used as a component in a means of egress shall conform to the applicable requirements for doors.

**Exception:** Stadium doors in compliance with the building code in effect at the time of construction.

**F-1008.5 Turnstiles.** Turnstiles or similar devices in existing buildings that restrict travel to one direction shall not be placed so as to obstruct any required means of egress.

**F-1008.6 Security Grilles.** The security grilles in existing buildings shall be secured in the full-open position during the period of occupancy by the general public. When a building is occupied, but not by the general public, security grilles are permitted to be in the closed position, provided they are openable from the inside without the use of a key or special knowledge or effort.

## [B]SECTION 1009 STAIRWAYS

(Delete Section in its entirety and substitute the following)

**F-1009.1 Stairways.** Stairways in the means of egress in existing buildings shall be in accordance with Section 1009. Exit stairways shall also be in accordance with this section and Section 1014. Stairways and landings shall be maintained in good condition and shall have no obstructions, including storage.

**F-1009.1.1 Storage under stairways.** There shall be no storage under stairways unless the area is enclosed with construction having at least a one hour fire resistance rating.

**F-1009.2 Dimensions for existing stairways.** Existing stairways in buildings shall be permitted to remain if the rise does not exceed 8¼ inches (210 mm) and the run is not less than 9 inches (229 mm). Existing stairs can be rebuilt.

**Exception:** Other stairways approved by the fire code official.

**F-1009.2.1 Dimensions for replacement stairways.** The replacement of an existing stairway in a structure shall not be required to comply with new stairway requirements of the Philadelphia Building Code where the existing space and construction will not allow a reduction in pitch or slope.

**F-1009.3 Winders.** Existing winders shall be allowed to remain in use if they have a minimum tread depth of 6 inches (152 mm) and a minimum tread depth of 9 inches (229 mm) at a point 12 inches (305 mm) from the narrowest edge.



***F-1009.4 Circular stairways. Existing circular stairs shall be allowed to continue in use provided the minimum depth of tread is 10 inches (254 mm) and the smallest radius shall not be less than twice the width of the stairway.***

***F-1009.5 Stairway handrails. Stairways shall have handrails on at least one side. Handrails shall be located so that all portions of the stairway width required for egress capacity are within 44 inches (1118 mm) of a handrail.***

***Exception: Aisle stairs provided with a center handrail are not required to have additional handrails.***

***F-1009.5.1 Height. Handrail height, measured above stair tread nosing, shall be uniform, not less than 30 inches (762 mm) and not more than 42 inches (1067 mm).***

## **[B]SECTION 1010 RAMPS**

**(Delete Section in its entirety and substitute the following)**

***F-1010.1 Ramps. Ramps inside or outside of existing buildings shall be in accordance with Section 1010 and maintained in good operating condition.***

***F-1010.1.1 Slope of ramps. Ramp runs utilized as part of a means of egress shall have a running slope not steeper than one unit vertical in 10 units horizontal (10-percent slope). The slope of other ramps shall not be steeper than one unit vertical in eight units horizontal (12.5-percent slope).***

***F-1010.1.2 Width of ramps. Ramps are permitted to have a minimum width of 30 inches (762 mm), but not less than the width required for the number of occupants served by the area.***

## **[B]SECTION 1011 [EXIT SIGNS]FIRE ESCAPES**

**[1011.1 Where required. Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. The path of egress travel to exits and within exits shall be marked by readily visible exit signs to clearly indicate the direction of egress travel in cases where the exit or the path of egress travel is not immediately visible to the occupants. Intervening means of egress doors within exits shall be marked by exit signs. Exit sign placement shall be such that no point in an exit access corridor or exit passageway is more than 100 feet (30 480 mm) or the listed viewing distance for the sign, whichever is less, from the nearest visible exit sign.**

### **Exceptions:**

- 1. Exit signs are not required in rooms or areas that require only one exit or exit access.**
- 2. Main exterior exit doors or gates that are obviously and clearly identifiable as exits need not have exit signs where approved by the fire code official.**
- 3. Exit signs are not required in occupancies in Group U and individual sleeping units or dwelling units in Group R-1, R-2 or R-3.**
- 4. Exit signs are not required in dayrooms, sleeping rooms or dormitories in occupancies in Group I-3.**
- 5. In occupancies in Groups A-4 and A-5, exit signs are not required on the seating side of vomitories or openings into seating areas where exit signs are provided in the concourse that are readily apparent from the vomitories. Egress lighting is provided to identify each vomitory or opening**

within the seating area in an emergency.

**1011.2 Illumination.** Exit signs shall be internally or externally illuminated.

**Exception:** Tactile signs required by Section 1011.3 need not be provided with illumination.

**1011.3 Tactile exit signs.** A tactile sign stating EXIT and complying with ICC A117.1 shall be provided adjacent to each door to an area of refuge, an exterior area for assisted rescue, an exit stairway, an exit ramp, an exit passageway and the exit discharge.

**1011.4 Internally illuminated exit signs.** Electrically powered, self-luminous and photoluminescent exit signs shall be listed and labeled in accordance with UL 924 and shall be installed in accordance with the manufacturer's instructions and Chapter 27 of the International Building Code. Exit signs shall be illuminated at all times.

**1011.5 Externally illuminated exit signs.** Externally illuminated exit signs shall comply with Sections 1011.5.1 through 1011.5.3.

**1011.5.1 Graphics.** Every exit sign and directional exit sign shall have plainly legible letters not less than 6 inches (152 mm) high with the principal strokes of the letters not less than  $\frac{3}{4}$  inch (19.1 mm) wide. The word "EXIT" shall have letters having a width not less than 2 inches (51 mm) wide, except the letter "I," and the minimum spacing between letters shall not be less than  $\frac{3}{8}$  inch (9.5 mm). Signs larger than the minimum established in this section shall have letter widths, strokes and spacing in proportion to their height.

The word "EXIT" shall be in high contrast with the background and shall be clearly discernible when the means of exit sign illumination is or is not energized. If a chevron directional indicator is provided as part of the exit sign, the construction shall be such that the direction of the chevron directional indicator cannot be readily changed.

**1011.5.2 Exit sign illumination.** The face of an exit sign illuminated from an external source shall have an intensity of not less than 5 foot-candles (54 lux).

**1011.5.3 Power source.** Exit signs shall be illuminated at times. To ensure continued illumination for a duration of not less than 90 minutes in case of primary power loss, the sign illumination means shall be connected to an emergency power system provided from storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Chapter 27 of the International Building Code.

**Exception:** Approved exit sign illumination means that provide continuous illumination independent of external power sources for a duration of not less than 90 minutes, in case of primary power loss, are not required to be connected to an emergency electrical system.]

***F-1011.1 Fire escape stairs.*** Fire escape stairs shall comply with this section.

***F-1011.1.1 Materials and strength.*** Components of fire escape stairs shall be constructed of noncombustible materials. Fire escape stairs and balconies shall support the dead load plus a live load of not less than 100 pounds per square foot (4.78 kN/m<sup>2</sup>). Fire escape stairs and balconies shall be provided with a top and intermediate handrail on each side. The fire code official is authorized to require testing or

*other satisfactory evidence (documentation from a registered engineer) that an existing fire escape stair meets the requirements of Section 1011.1.*

*F-1011.1.2 Access to fire escape stairs. Access to a fire escape from a corridor shall not be through an intervening room. Access to a fire escape stair shall be from a door or window. Windows shall have a minimum clear height of at least 24 inches and a minimum clear width of 20 inches. If the bottom of the window or door is not within 12 inches of the floor level, steps shall be provided to access the door or window. Access to a fire escape stair shall be directly to a balcony, landing or platform. These shall be no higher than the floor or window sill level and no lower than 8 inches (203 mm) below the floor level or 18 inches (457 mm) below the window sill.*

*F-1011.1.3 Maintenance. Fire escapes shall be kept clear and unobstructed at all times and shall be maintained in good working order. Broken or missing parts shall be replaced.*

## **[B]SECTION 1012 [HANDRAILS]VERTICAL OPENINGS**

**(Delete Section in its entirety and substitute the following)**

*F-1012.1 Vertical openings. Interior vertical shafts, including but not limited to stairways, hoistways, service and utility shafts, that connect 2 or more stories of a building, shall be enclosed or protected as specified in this section. (Note: The requirements of Section 1012.1 are duplicated in Section 704.1 as Chapter 7 also relates to vertical enclosures.)*

*F-1012.1.1 Group I occupancies. In Group I occupancies, interior vertical openings connecting 2 or more stories shall be protected with 1-hour fire-resistance-rated construction.*

*F-1012.1.2 Three stories. In other than Group I occupancies, interior vertical openings connecting 3 stories shall either be protected by 1-hour fire-resistance-rated construction or an automatic sprinkler system shall be installed throughout the building.*

*Exceptions:*

- 1. Vertical opening protection is not required for Group R-3 occupancies.*
- 2. Vertical opening protection is not required for open parking garages and ramps.*
- 3. Vertical opening protection is not required for escalators provided they are in accordance with Section 1012.1.5, 1012.1.6 or 1012.1.7.*

*F-1012.1.3 More than three stories. In other than Group I occupancies, interior vertical openings connecting more than 3 stories shall be protected by 1-hour fire-resistance-rated construction.*

*Exceptions:*

- 1. Vertical opening protection is not required for Group R-3 occupancies.*
- 2. Vertical opening protection is not required for open parking garages and ramps.*
- 3. Vertical opening protection is not required for escalators provided they are in accordance with Section 1012.1.5, 1012.1.6 or 1012.1.7.*

***F-1012.1.4 Atriums and covered malls. In other than Group I occupancies, interior vertical openings in a covered mall building or a building with an atrium shall either be protected by one hour fire-resistance-rated construction, or an automatic sprinkler system shall be installed throughout the building.***

***Exceptions:***

- 1. Vertical opening protection is not required for Group R-3 occupancies.***
- 2. Vertical opening protection is not required for open parking garages and ramps.***

***F-1012.1.5 Escalators in Group B and M occupancies. Escalators creating vertical openings connecting any number of stories in Group B and M occupancies shall be protected by either one hour fire-resistance-rated construction or an automatic sprinkler system installed throughout the building, a draft curtain at least 18 inches (457 mm) in depth and closely spaced sprinklers installed around the perimeter of the escalator opening.***

***F-1012.1.6 Escalators connecting four or fewer stories. In other than Group B and M occupancies, escalators creating vertical openings connecting 4 or fewer stories shall be protected by either one hour fire-resistance-rated construction or an automatic sprinkler system installed throughout the building, a draft curtain at least 18 inches (457 mm) in depth and closely spaced sprinklers installed around the perimeter of the escalator opening.***

***F-1012.1.7 Escalators connecting more than four stories. In other than Group B and M occupancies, escalators creating vertical openings connecting 5 or more stories shall be protected by 1-hour fire-resistance-rated construction.***

**[B]SECTION 1013 GUARDS**

**(Delete Section in its entirety and substitute the following)**

***F-1013.1 Guards. Guards complying with this section shall be provided at the open sides of means of egress that are more than 30 inches (762 mm) above the floor or grade below.***

***F-1013.1.1 Height of guards. Guards shall form a protective barrier not less than 42 inches (1067 mm) high.***

***Exceptions:***

- 1. Existing guards on the open side of stairs shall be not less than 30 inches (760 mm) high.***
- 2. Existing guards within dwelling units shall be not less than 36 inches (910 mm) high.***
- 3. Existing guards in assembly seating areas.***

***F-1013.1.2 Opening limitations. Open guards shall have balusters or ornamental patterns such that a 6-inch-diameter (152 mm) sphere cannot pass through any opening up to a height of 34 inches (864 mm).***

- 1. At elevated walking surfaces for access to, and use of, electrical, mechanical or plumbing systems or***

*equipment, guards shall have balusters or be of solid materials such that a sphere with a diameter of 21 inches (533 mm) cannot pass through any opening.*

*2. In occupancies in Group I-3, F, H or S, the clear distance between intermediate rails measured at right angles to the rails shall not exceed 21 inches (533 mm).*

*3. Approved existing open guards.*

## **[{B}]SECTION 1014 [EXIT ACCESS] EXITS AND EXIT ENCLOSURES**

**(Delete Section in its entirety and substitute the following)**

*F-1014.1 Exits and exit enclosures. Exits and exit stairway enclosures in existing buildings shall be in accordance with Section 1014. All portions of an exit shall remain clear and unobstructed. Penetrations in exit enclosures shall be sealed in accordance with Section 704.1.8.*

*F-1014.2 Buildings with one exit. Where a building with one exit was constructed in conformance with the building code in effect at the time the building was constructed, the single exit is acceptable provided it is in accordance with one of the following conditions:*

- 1. A nonresidential building not exceeding 6 stories above grade.*
- 2. A residential building, other than Group R-3, not exceeding 3 stories above grade.*
- 3. A Group R-3 building of any height.*
- 4. A building equipped with a fire suppression system and fire alarm system throughout the building with smoke detectors in all corridors, lobbies and other common areas.*
- 5. A building equipped with an automatic fire alarm system with smoke detectors installed throughout the building (smoke alarms in dwelling units) and the single exit is a smokeproof enclosure or pressurized stairway installed in accordance with Section 1022.9 of the Philadelphia Building Code.*
- 6. Buildings in compliance with the Philadelphia Building Code.*

*F-1014.3 Floor identification signs. A floor identification sign shall be provided in existing buildings at each floor landing in exit enclosures connecting more than 3 stories designating the floor level and the identification of the stair or ramp. The signage shall also state the story of, and the direction to, the exit discharge and the availability of roof access from the enclosure for possible use by the fire department. The sign shall be located 5 feet (1524 mm) above the floor landing in a position that is readily visible when the doors are in the open and closed positions.*

*F-1014.3.1 Signage requirements. Stairway identification signs shall comply with all of the following requirements:*

- 1. The letters designating the identification of the stair enclosure shall be a minimum of 1½ inches (38 mm) in height.*

- 2. The number designating the floor level shall be a minimum of 5 inches (127 mm) in height and located in the center of the sign.*
- 3. All other lettering and numbers shall be a minimum of one inch (25 mm) in height.*
- 4. Characters shall contrast with their background, with either light characters on a dark background or dark characters on a light background.*
- 5. Where access to the roof from the exit stair enclosure is not direct, but is available through a room or corridor accessed from the exit stair enclosure, the sign shall include the words "Indirect Roof Access." A properly oriented floor diagram shall be provided at the exit stair landing at the floor level that provides the indirect roof access. The floor diagram shall indicate the route to the door, stair or ladder that leads to the roof and be located at approximately eye level near the stair floor landing sign.*

***F-1014.4 Egress path markings.*** Existing buildings of Group A, B, E, I, M and R-1 having occupied floors located more than 75 feet (22 860 mm) above the lowest level of fire department vehicle access shall be provided with luminous egress path markings in accordance with Section 1024 of the Philadelphia Building Code.

***Exception:*** Buildings existing, or where plans for the construction of the building were approved, prior to February 17, 2010, are exempt from the requirements for luminous egress path markings provided the building has a sprinkler system installed throughout and the exit egress lighting is connected to a primary power supply and an emergency generator or other secondary power supply.

***F-1014.5 Exit discharge identification.*** An exit stairway enclosure shall not continue below its level of exit discharge unless an approved barrier is provided at the level of exit discharge to prevent persons from unintentionally continuing into levels below.

***F-1014.6 High-rise building exit stairways.*** Exit stairway enclosures in existing high-rise buildings shall be smokeproof (having an interior or exterior ventilated vestibule) or have stairway pressurization in accordance with Section 1022.9 of the Philadelphia Building Code. The enclosures and related equipment shall be maintained in an operable condition.

## **[B]SECTION 1015 [EXIT AND EXIT ACCESS DOOR] AREAS OF REFUGE**

**(Delete Section in its entirety and substitute the following)**

***F-1015.1 Areas of refuge.*** Areas of refuge required by the current or a previous edition of the Philadelphia Building Code, including all equipment required in the room or space, shall be maintained.

***F-1015.2 Communications in areas of refuge.*** Areas of refuge shall have a means to communicate to a constantly attended location or a telephone to call 911.

***F-1015.2.1 All two-way communication systems for areas of refuge.*** All two-way communication systems for areas of refuge shall be inspected and tested on an annual basis to verify that all components are operational. A record of all tests shall be maintained on the premises and available for inspection by the fire code official.

***F-1015.3 Identification of area of refuge rooms. Doors to areas of refuge shall be posted with a sign stating “Areas of Refuge” to identify the room or space.***

**[{B}]SECTION 1016 [EXIT ACCESS TRAVEL DISTANCE] MAINTENANCE OF MEANS OF EGRESS**

**(Delete Section in its entirety and substitute the following)**

***F-1016.1 Maintenance of means of egress. All portions of means of egress shall be continuously maintained free from obstructions or impediments, including snow and ice, to full instant use in the case of fire or other emergency when the areas served by such exits are occupied. Security devices affecting means of egress shall be subject to approval of the fire code official.***

***F-1016.2 Maintenance of exit signs and egress lighting. All exit signs and egress lighting and the primary and secondary power supplies for exit signs and egress lighting shall be maintained and in proper operating condition.***

***F-1016.3 Obscuring or obstructing exit doors. Exits and exit doors shall not be obscured from visibility or obstructed by furnishing, decorations or other objects. Hangings or draperies shall not be placed over exit doors or otherwise located to conceal or obstruct an exit. Mirrors shall not be placed on exit doors. Mirrors shall not be placed in or adjacent to exits in such a manner as to confuse the direction of exit travel.***

***F-1016.4 Emergency escape and rescue openings. Emergency escape and rescue openings required by the current or a previous edition of the Philadelphia Fire Code or Philadelphia Building Code shall be maintained. They shall be operational from inside the room without the use of keys or tools. Bars, grilles, grates or similar devices are allowed to be placed over emergency escape and rescue openings, provided the minimum net clear opening size complies with the code in effect at the time of construction, and such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the escape and rescue opening.***

**SECTION F-1022 EXIT ENCLOSURES**

**\* \* \***

**F-1022.8.1 Signage requirements. Stairway identification signs shall comply with all of the following requirements:**

- 1. The signs shall be a minimum size of 18 inches (457 mm) by 12 inches (305 mm).**
- 2. The letters designating the identification of the stair enclosure shall be a minimum of 1 1/2 inches (38 mm) in height.**
- 3. The number designating the floor level shall be a minimum of 5 inches (127 mm) in height and located in the center of the sign.**
- 4. All other lettering and numbers shall be a minimum of 1 inch (25 mm) in height.**
- 5. Characters and their background shall have a nonglare finish. Characters shall contrast with their background, with either light characters on a dark background or dark characters on a light background.**
- 6. When signs required by Section F-1022.8 are installed in interior exit enclosures of buildings subject to Section F-1024, the signs shall be made of the same materials as required by Section F-**

1024.4.

7. Where access to the roof from the exit stair enclosure is not direct, but is available through a room or corridor accessed from the exit stair enclosure, the sign shall include the words "Indirect Roof Access". A properly oriented floor diagram shall be provided at the exit stair landing at the floor level that provides the indirect roof access. The floor diagram shall indicate the route to the door, stair or ladder that leads to the roof and be located at approximately eye level near the stair floor landing sign.

\* \* \*

## SECTIONS {B}1017 through {B}1029

(Delete titles and text of Sections in their entirety without substitution)

### SECTION F-1030 MAINTENANCE OF THE MEANS OF EGRESS

\* \* \*

~~F-1030.7 Emergency escape openings. Required emergency escape openings shall be maintained in accordance with the code in effect at the time of construction, but at a minimum in accordance with Sections F-1029.1 and the following: required emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools. Bars, grilles, grates or similar devices are allowed to be placed over emergency escape and rescue openings provided the minimum net clear opening size complies with the code that was in effect at the time of construction and such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the escape and rescue opening.~~

\* \* \*

## SECTION 1030

(Delete title and text of Section without substitution)

## CHAPTER 11 AVIATION FACILITIES

\* \* \*

### SECTION F-1101 GENERAL

\* \* \*

~~F-[1101.3 Permits. {For p} Permits {to operate aircraft-refueling vehicles, application of flammable or combustible finishes and hot work, see}]shall be required as set forth in Section F-105.6.~~

\* \* \*

## SECTION 1106 AIRCRAFT FUELING



\* \* \*

**F-1106.2 Airport fuel systems.** *New [A]airport fuel systems shall be designed and installed in accordance with NFPA 407. Existing systems shall be maintained in accordance with Section 1106.*

**F-1106.3 Construction of aircraft-fueling vehicles and accessories.** Aircraft-fueling vehicles shall comply with this section and *new vehicles and accessories* shall be designed and constructed in accordance with NFPA 407.

\* \* \*

## SECTION 1107 HELISTOPS AND HELIPORTS

**1107.1 General.** Helistops and heliports shall be maintained in accordance with Section 1107.2 through 1107.8. *New [H]helistops and heliports on buildings shall be constructed in accordance with the [International] Philadelphia Building Code.*

\* \* \*

## CHAPTER 12 DRY CLEANING

\* \* \*

## SECTION 1204 GENERAL REQUIREMENTS

\* \* \*

**F-1204.2 Building services.** Building services and systems shall be [designed, installed and] maintained in accordance with this section and Chapter 6. *Where the installation of equipment or systems is required to comply with this chapter, the design and installation shall be in accordance with this chapter and Chapter 6.*

\* \* \*

## SECTION 1207 DRY CLEANING SYSTEMS

**F-1207.1 General equipment requirements.** Dry cleaning systems, including dry cleaning units, washing machines, stills, drying cabinets, tumblers and their appurtenances, including pumps, piping, valves, filters and solvent coolers, shall be installed and maintained in accordance with NFPA 32. The construction of *new* buildings in which such systems *will be* [are] located shall comply with the requirements of this section and the [International] *Philadelphia Building Code.*

\* \* \*

## SECTION 1208 FIRE PROTECTION

\* \* \*

**F-1208.2 Automatic sprinkler system.** An automatic sprinkler system shall be installed in accordance with Section 903.3.1.1 throughout dry cleaning plants containing Type II, Type III-A or Type III-B dry cleaning systems.

*Exception: A sprinkler system is not required in dry cleaning plants with Class III dry cleaning systems where the dry cleaning systems and the rooms containing the dry cleaning systems are in accordance with the following:*

- 1. The rooms containing dry cleaning systems are separated from other portions of the plant by construction having at least a one-hour fire resistance rating.*
- 2. The plant does not contain more than 330 gallons (1136 L) of dry cleaning solvent.*
- 3. The dry cleaning machines are equipped with instrumentation, equipment, or controls that provide one of the following:*
  - 1.1. Features that limit oxygen concentrations to less than 8 percent by volume.*
  - 1.2. Features that limit solvent vapor concentration to less than 25 percent of the lower explosive limit (LEL).*
  - 1.3. Features that limit solvent vapor concentration at or below 60 percent of the LEL where automatic instrumentation with safety interlocks is provided in accordance with NFPA 69, Standard on Explosion Prevention Systems.*
  - 1.4. Features that limit solvent temperature to less than 30°F (-1.1°C) below their flash points.*
  - 1.5. Features that incorporate equipment approved for use in Class I, Division 2 hazardous locations.*
  - 1.6. Features that incorporate an integral automatic fire-extinguishing system conforming to Section 4.6 (water mist, clean agent, carbon dioxide, etc.) of NFPA 32.*

\* \* \*

## CHAPTER 13 COMBUSTIBLE DUST-PRODUCING OPERATIONS

### SECTION F-1301 GENERAL

\* \* \*

F-[1301.2 Permits. Permits shall be required {for combustible dust-producing operations} as set forth in Section F- 105.6.]

\* \* \*

## CHAPTER 14 FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION

\* \* \*

### SECTION F-1414 AUTOMATIC SPRINKLER SYSTEM

\* \* \*

## CHAPTER 15 FLAMMABLE FINISHES

\* \* \*

### SECTION 1504 SPRAY FINISHING

\* \* \*

***F-1504.3 Design and construction.*** Design and construction of *new* spray rooms, spray booths and spray spaces shall be in accordance with Sections 1504.3 through 1504.3.3.1.

\* \* \*

### SECTION 1505 DIPPING OPERATIONS

\* \* \*

***F-1505.3 Construction of dip tanks.*** *New* [D]*dip* tanks shall be constructed in accordance with Sections 1505.3.1 through 1505.3.4.3 and NFPA 34. Dip tanks, including drain boards, shall be constructed of noncombustible material and their supports shall be of heavy metal, reinforced concrete or masonry.

\* \* \*

## CHAPTER 17 FUMIGATION AND THERMAL INSECTICIDAL FOGGING

### SECTION 1701 GENERAL

\* \* \*

**[1701.2 Permits.** Permits shall be required as set forth in Section 105.6.]

\* \* \*

## CHAPTER 19 LUMBER YARDS AND WOODWORKING FACILITIES

## SECTION 1901 GENERAL

\* \* \*

[1901.2 Permit. Permits shall be required as set forth in Section 105.6.]

\* \* \*

## SECTION 1903 GENERAL REQUIREMENTS

**F-1903.1 Open yards.** *In new construction*, [O]open yards required by the [International] *Philadelphia Building Code* shall be maintained around structures.

**F-1903.2 Dust control.** Equipment or machinery located inside buildings that generates or emits combustible dust shall be provided with an approved dust collection and exhaust system. *Systems required to be installed to comply with this section shall be installed in accordance with Chapter 13 and the [International] Philadelphia Mechanical Code.* Equipment or systems that are used to collect, process or convey combustible dusts shall be provided with an approved explosion control system.

\* \* \*

**F-1903.3 Waste removal.** Sawmills, planning mills, and other woodworking plants shall be equipped with a waste removal system that will collect and remove sawdust and shavings. [Such s]Systems *required to be installed to comply with this section* shall be installed in accordance with Chapter 13 and the [International] *Philadelphia Mechanical Code*.

\* \* \*

## CHAPTER 20 MANUFACTURE OF ORGANIC COATINGS

\* \* \*

## SECTION 2005 PROCESS STRUCTURES

**F-2005.1 [Design] Process structures.** *New* [P]process structures shall be designed and constructed in accordance with the [International] *Philadelphia Building Code*.

\* \* \*

**F-2005.4 Explosion control.** Explosion control shall be provided in areas subject to potential deflagration hazards as indicated in NFPA 35. Explosion control *required to be installed to comply with this section* shall be provided in accordance with Section 911. *Explosion control in existing facilities shall be maintained in accordance with the installation standard.*

\* \* \*

## CHAPTER 21 INDUSTRIAL OVENS

## SECTION 2101 GENERAL

**F-2101.1 Scope.** This chapter shall apply to the [installation and] operation of industrial ovens and furnaces. Industrial ovens and furnaces *required to be installed to comply with this section* shall comply with the applicable provisions of NFPA 86, the [International] *Philadelphia* Fuel Gas Code, [International] *Philadelphia* Mechanical Code and this chapter. The terms "ovens" and "furnaces" are used interchangeably in this chapter.

**[2101.2 Permits.** Permits shall be required as set forth in Sections 105.6 and 105.7.]

\* \* \*

## CHAPTER 22 MOTOR FUEL-DISPENSING FACILITIES AND REPAIR GARAGES

### SECTION 2201 GENERAL

**F-2201.1 Scope.** Automotive motor fuel-dispensing facilities, marine motor fuel-dispensing facilities, fleet vehicle motor fuel-dispensing facilities, aircraft motor-vehicle fuel-dispensing facilities and repair garages shall be *operated* in accordance with this chapter. [And the] *New installations shall be in accordance with this chapter, the* [International] *Philadelphia* Building Code, [International] *Philadelphia* Fuel Gas Code and [International] *Philadelphia* Mechanical Code. Such operations shall include both those that are accessible to the public and private operations.

\* \* \*

**F-2201.3 Construction documents.** Construction documents *for new construction or installations* shall be submitted *to the Department of Licenses and Inspections* for review and approval prior to the installation or construction of automotive, marine or fleet vehicle motor fuel-dispensing facilities and repair garages. [In accordance with Section 105.4.]

**F-2201.4 Indoor motor fuel-dispensing facilities.** Motor fuel-dispensing facilities located inside buildings shall comply *with NFPA 30A*. *New construction shall comply* with the [International] *Philadelphia* Building Code and NFPA 30A.

\* \* \*

### SECTION F-2203 LOCATION OF DISPENSING DEVICES

\* \* \*

### SECTION 2206 FLAMMABLE AND COMBUSTIBLE LIQUID MOTOR FUEL-DISPENSING FACILITIES

\* \* \*

**F-2206.2.5 Portable tanks.** Where approved by the fire [code official] *department*, portable tanks are allowed to be temporarily used in conjunction with the dispensing of Class I, II or IIIA liquids into the fuel tanks of motor vehicles or motorized equipment on premises not normally accessible to the public.

The approval shall include a definite time limit.

\* \* \*

## SECTION 2210 MARINE MOTOR FUEL-DISPENSING FACILITIES

**F-2210.1 General.** The new construction of marine motor fuel-dispensing facilities shall be in accordance with the [International] *Philadelphia* Building Code and NFPA 30A. The storage of Class I, II or IIIA liquids at marine motor fuel-dispensing facilities shall be in accordance with this chapter and Chapter 34.

\* \* \*

## SECTION 2211 REPAIR GARAGES

**F-2211.1 General.** Repair garages shall comply with this section. [and] *New construction of repair garages shall comply with* the [International] *Philadelphia* Building Code. Repair garages for vehicles that use more than one type of fuel shall comply with the applicable provisions of this section for each type of fuel used.

\* \* \*

## CHAPTER 23 HIGH-PILED COMBUSTIBLE STORAGE

## SECTION 2301 GENERAL

\* \* \*

**[2301.2 Permits.** A permit shall be required as set forth in Section 105.6.]

\* \* \*

## SECTION ~~F~~-2303 COMMODITY CLASSIFICATION

\* \* \*

## CHAPTER 24 TENTS, CANOPIES AND OTHER MEMBRANE STRUCTURES

\* \* \*

## SECTION ~~F~~-2404 TEMPORARY AND PERMANENT TENTS AND MEMBRANE STRUCTURES

\* \* \*

## CHAPTER 25

## VEHICLE SALVAGE, TIRE REBUILDING AND TIRE STORAGE

### SECTION F-2501 GENERAL

\* \* \*

[2501.2 Permit required. Permits shall be required as set forth in Section 105.6.]

\* \* \*

### SECTION 2503 TIRE REBUILDING

**F-2503.1 Construction.** *The new construction of [T]ire rebuilding plants shall comply with the requirements of the [International] Philadelphia Building Code, as to construction, separation from other buildings or other portions of the same building, and protection.*

\* \* \*

### SECTION F-2510 VEHICLE SALVAGE AND WRECKING FACILITIES

\* \* \*

## CHAPTER 26 WELDING AND OTHER HOTWORK

### SECTION F-2601 GENERAL

\* \* \*

F-2601.2 Permits. Permits shall be required as set forth in Section F-105.6. ~~A hot work program as listed in Section F-105.6.5 shall be approved by the fire department.~~

\* \* \*

## CHAPTER 27 HAZARDOUS MATERIALS - GENERAL PROVISIONS

### SECTION F-2701 GENERAL

\* \* \*

*F-2701.7 Hazardous material emergency planning and response. Pursuant to SARA Title III and the Pennsylvania Hazardous Material Emergency Planning and Response Act of 1990 (~~HazMat Act 165~~), the requirements of Sections F-2701.7.1 through F-2701.7.10 have been established to provide for hazardous material emergency planning and response:*

*F-2701.7.1 Philadelphia Local Emergency Planning Committee. The Philadelphia Local Emergency Planning Committee (PLEPC) has been established pursuant to subsection 203(a) of ~~the HazMat Act 165~~ and is composed as follows:*

1. *Mayor or designee*
2. *Managing Director or designee*
3. *Chairperson of the Public Safety Committee of City Council or designee*
4. *Emergency Management Director of the City **or designee***
5. *At least one person from each of the following City departments, agencies or offices:*
  - 5.1. *Fire Department*
  - 5.2. *Police Department*
  - 5.3. *Department of Public Health*
  - 5.4. *Law Department*
  - ~~5.5. *City Planning Commission*~~
  - 5.6.5. *Department of Licenses and Inspections*
  - 5.7.6. *Water Department*
  - ~~5.8. *Streets Department*~~
  - 5.9. *Managing Director's Office of Emergency Management*
6. *At least ~~one~~ One person representing ~~each of~~ the following entities or groups **are invited to be members:***
  - 6.1. *United States Coast Guard Sector Delaware Bay.*
  - 6.2. *Southeastern Pennsylvania Transportation Authority.*
  - 6.3. *American Red Cross, Southeastern Pennsylvania Chapter.*
  - 6.4. *Hospitals and/or health care agencies.*
  - 6.5. *Environmental advocacy organizations.*
  - 6.6. *Owners and operators of regulated facilities.*
  - 6.7. *Community groups not affiliated with emergency service groups.*
  - 6.8. *Broadcast and print media.*
  - 6.9. *Railroads and or other transportation carriers.*
  - 6.10 Streets department.**
  - 6.11 City Planning Commissioner.**

*F-2701.7.2 Appointment of members to PLEPC. Pursuant to ~~the HazMat~~ Act 165, the members of the PLEPC have been appointed by the Pennsylvania Emergency Management Agency. Should a vacancy occur in the PLEPC, the Emergency Management Services Director shall nominate to the Pennsylvania Emergency Management Agency a successor member who has been nominated by the represented organization or industry in which the vacancy occurs, if applicable. If the vacancy occurs within a represented category (listed in item 6 of Section F-2701.7.1), then the Emergency Management Director shall cause a nominating*



*committee to be formed consisting of PLEPC members to recommend a replacement member, who shall in turn be nominated to the Pennsylvania Emergency Management Agency.*

*F-2701.7.3 Emergency Management Director. Pursuant to ~~the HazMat~~ Act **0165**, the City's Emergency Management Director, who is the person designated by the Mayor to perform emergency management functions, shall have the lead responsibility for ensuring that the plans and activities of PLEPC comply with SARA Title III, ~~the HazMat~~ Act **165** and other applicable statutes, laws and ordinances.*

*F-2701.7.4 Emergency response plan. The Comprehensive Local Emergency Response Plan (Emergency Response Plan) required by Section 303 of SARA Title III and Section 203(k) of ~~the HazMat~~ Act **165** shall include, but not be limited to, each of the following:*

- 1. Identification of each Regulated Facility within the City, identification of routes likely to be used for the transportation of substances on the list of Extremely Hazardous Substances and identification of additional facilities contributing or subject to additional risk due to their proximity to the Regulated Facility subject to the requirement of this section, such as hospitals or natural gas facilities.*
- 2. Methods and procedures to be followed by Regulated Facility owners and operators and local emergency and medical personnel to respond to any Release of such substances.*
- 3. Designation of a community emergency coordinator and Regulated Facility emergency coordinators who shall make determinations necessary to implement the Emergency Response Plan.*
- 4. Procedures providing reliable, effective and timely notification by the Regulated Facility emergency coordinators and the City Emergency Management Director to persons designated in the Emergency Response Plan and to the public, that a Release has occurred, consistent with the notification requirements of Section 304 of SARA Title III.*
- 5. Methods for determining the occurrence of a Release, and the area of population likely to be affected by such Release.*
- 6. A description of emergency equipment and facilities in the City and at each Regulated Facility and an identification of persons responsible for such equipment and facilities.*
- 7. Evacuation plans, including provisions for a precautionary evacuation and alternative traffic routes.*
- 8. Training programs, including schedules for training of local emergency response and medical personnel. Training shall meet the minimum standards outlined in 29 Code of Federal Regulations 1910.1200, Hazardous Waste Operations and Emergency Response.*
- 9. Methods and schedules for exercising the Emergency Response Plan.*

*F-2701.7.5 Hazardous Material Emergency Response Preparedness Assessment. The City Emergency Management Director shall develop and submit to the Pennsylvania Emergency Management Agency a Hazardous Material Emergency Response Preparedness Assessment (the Assessment) in accordance with Section 204(a)(3) of ~~the HazMat~~ Act **165**. The Assessment shall be updated annually. The City shall assess the potential dangers and risks that hazardous material Releases from Regulated Facilities and transportation accidents pose to public health and the environment, identify the City's needs and resources for hazardous material response teams to deal with those dangers and risks and outline its plan for*

implementing City emergency planning functions under ~~the HazMat~~ Act 165. The Assessment shall include the following:

1. Potential threats posed by Regulated Facilities required to be included in the City's Emergency Response Plan under Section 303 of SARA Title III, and other concentrations of hazardous material in the City or in areas immediately adjacent to the City that may pose a threat.
2. Potential threats posed by hazardous material transported by highway and railroad in the City.
3. Identification of existing capabilities to respond to hazardous material Releases, including personnel, equipment, training, planning and identification of existing hazardous material response zones.
4. Organization and operation of a certified hazardous material response team under Section 209(e) of ~~the HazMat~~ Act 165 and identification of the need for personnel, equipment, training and planning needed to respond to potential threats, including the designation of proposed levels of preparedness for the City's hazardous material response team.
5. Identification of other resources needed to implement the provisions of ~~the HazMat~~ Act 165 and to support the PLEPC.
6. An audit of the Hazardous Material Emergency Response Account.

*F-2701.7.6 Hazardous Material Emergency Response Account. A non-lapsing restricted account, known as the Hazardous Material Emergency Response Account (~~HazMat~~ **HMER** Account) and established within the Grants Revenue Fund by the City Finance Department shall consist of all fees authorized by this subsection, City, federal, or state funds, grants, loans or penalties and any private donations provided to finance the hazardous material safety program established pursuant to ~~the HazMat~~ Act 165. Expenditures from the ~~HazMat~~ **HMER** Account shall be made pursuant to appropriations from the ~~HazMat~~ **HMER** Account of the Grants Revenue Fund and consistent with the needs identified in the City's Assessment. The PLEPC shall be consulted with respect to the consistency of proposed expenditures with the needs identified in the assessment.*

*F-2701.7.7 Hazardous Chemical Fee. By March 1 of every year, each owner or operator of a Regulated Facility shall pay to the City Revenue Department (via the PLEPC Tier II Coordinator), to be deposited in the ~~HazMat~~ **HMER** Account, a Hazardous Chemical Fee for each hazardous chemical which is required by Section 312 of SARA Title III to be listed on the hazardous chemical inventory form (Tier II) which the owner or operator of a Regulated Facility submits to the PLEPC, provided that no fee may be applied to additional facilities or hazardous materials because of changes made by the United States Environmental Protection Agency in lists of hazardous materials, threshold planning quantities or other requirements under SARA Title III, unless there has been compliance with the provisions of Section 213 of ~~the HazMat~~ Act 165. A credit in an amount up to 100 percent of the Hazardous Chemical Fee obligation shall be given to Regulated Facility owners or operators for training, equipment or other in-kind services donated to the City to support the hazardous material safety program, if such training, equipment or in-kind services are accepted by the City upon approval of the Emergency Management Director following a review by the PLEPC of a written proposal of donation. The PLEPC shall recommend to the City's Emergency Management Director whether or in what amount a credit for such training, equipment or in-kind services shall be extended to a Regulated Facility owner or operator. Each agreement by the City to accept such a donation in exchange for a credit toward the Hazardous Chemical Fee obligation shall be written, and shall specify the amount of credit to be awarded, based on the fair market value of equipment donated and the agreed-upon value of training or in-kind services donated. The owners or operators of family farm enterprises, service stations (as such terms*

are defined in ~~the HazMat~~ Act **165**) and Regulated Facilities owned by state and local governments shall be exempt from payment of the fees required in this section.

*F-2701.7.8 Emergency Planning Fee. By March 1 of every year, each owner or operator of a Regulated Facility that manufactures, produces, uses, stores, supplies or distributes any Extremely Hazardous Substance in quantities larger than the threshold planning quantities shall pay to the City Revenue Department for each Regulated Facility an Emergency Planning Fee. A credit in the amount of 100 percent of this Emergency Planning Fee shall be available to Regulated Facility owners or operators for training, equipment or other in-kind services donated to the City to support the hazardous material safety program if such training, equipment or in-kind services are accepted by the City in the same manner provided for acceptance of donations credited to the Hazardous Chemical Fee in Section 2701.7.7 and are in addition to those for which credit is claimed under Section 2701.7.7. The owners or operators of family farm enterprises, service stations (as such terms are defined in [the HazMat] Act **165**) and Regulated Facilities owned by state and local governments shall be exempt from payment of the fees required by this section.*

*F-2701.7.9 Limited liability of members of the PLEPC. Pursuant to [the HazMat] Act **165**, no member of the PLEPC shall be liable for the death of, or any injury to persons or loss or damage to property or the environment or any civil damages resulting from any act or omission arising out of the performance of the functions, duties and responsibilities of the PLEPC, except for acts or omissions which constitute willful misconduct.*

\* \* \*

*F-2701.8 Emergency information required on site. Material Safety Data Sheets (**MSDS**) or **Safety Data Sheets (SDS)**, for quantities of hazardous materials requiring a permit in accordance with Section 105.6 or a Tier II Chemical Inventory Form required by Subtitle B, Sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III), shall be stored on the exterior of a facility (building wall, fence, post mounted, etc.) in an Emergency Information Container at a location readily available to emergency responders on a 24-hour basis. The container shall be weather-resistant and locked by a padlock. The location of the container shall be subject to approval by the fire department.*

\* \* \*

*F-2701.10.1 Emergency procedures. Facilities that have hazardous materials in quantities exceeding 10,000 pounds (4540 kg) or who have extremely hazardous substances as regulated by the Environmental Protection Agency (EPA) and Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) and appearing on the EPA's Community Right to Know Chemical List shall prepare procedures to be followed during an emergency at their facility, including the immediate notification of the fire department. A copy of the procedures shall be sent to the fire department and the Philadelphia Local Emergency Planning Committee. Managers shall ensure that employees are knowledgeable of their responsibilities during emergencies. Emergency procedures shall be posted in prominent locations **or stored in readily available locations** throughout a facility.*

\* \* \*

## SECTION F-2702 DEFINITIONS

\* \* \*

F-2702.1 Definitions. The following words and terms shall, for the purposes of this chapter, Chapters 28 through 44, and as used elsewhere in this code, have the meanings shown herein.

\* \* \*

HAZARDOUS MATERIALS. Those chemicals or substances which are physical hazards or health hazards as defined and classified in this chapter, whether the materials are in usable or waste condition. *Hazardous materials shall also include any of the following as defined in [the] Pennsylvania [HazMat] Act 165 or regulations promulgated thereto:*

1. *A hazardous substance.*
2. *An extremely hazardous substance.*
3. *A hazardous chemical.*
4. *A toxic chemical.*

\* \* \*

## SECTION F-2703 GENERAL REQUIREMENTS

\* \* \*

### **F-2703.8.1 Buildings. *New [B]***