

# **DELAWARE STATE FIRE PREVENTION REGULATIONS**

Statutory Authority: 16 Delaware Code, Section 6603 (16 **Del.C.** §6603)

1 **DE Admin. Code** 700

## **FINAL**

## **ORDER**

### **Nature of the Proceedings**

The State Fire Prevention Commission ("the Commission") held a properly noticed, public hearing on August 18, 2009 to receive comment on proposed additions, revisions, deletions, modifications and reservations to the Commission Regulations. Pursuant to 29 Del.C. §10115, notice of the proposed amendments to the rules and regulations was published on July 1, 2009, in the *Delaware Register of Regulations*, Volume 13, Issue 12. In addition, the hearing notice was published in 2 newspapers of general circulation. The Commission deliberated on the public comment at its next regularly noticed and scheduled meeting on September 15, 2009.

### **Summary of the Evidence**

1. The Commission received one written comment from Ron Gahagan, Assistant General Counsel, Altria Client Services Inc., on behalf of Phillip Morris USA, Inc., suggesting multiple revisions to Chapter 1 under Section 704 of the proposed regulations related to Reduced Ignition Propensity Cigarettes. The submission included a marked up copy of the regulations with Mr. Gahagan's proposed changes. Mr. Gahagan's written submission was admitted as Commission **Public Hearing Exhibit 1**.

2. The Commission received a brief overview of the proposed updates to the Regulations from Fire Marshal Grover P. Ingle. The proposed amendments stem from the three (3) year review cycle. The summary of the proposed recommendations for 2009 is as follows:

#### **Part I**

- Chapter 2: New Definitions and recommended changes from the High Rise Committee.
- Chapter 4: Revision on Limitations of Plan Review approvals and permits.
- ANNEX A: Recommendation to adopt the most recent editions of NFPA Codes and Standards that are presently adopted by the Regulation.
- ANNEX B: Recommendations to update the proper section and paragraph numbers from the adopted NFPA Codes and Standards that are presently amended by the Regulation, including NFPA 1; which is being moved from Annex C to Annex B.

#### **Part II**

- Chapter 3, 4, and 5: Proposed recommendations to the High Rise and Large Area building Chapters as proposed by the High Rise Committee.

#### **Part III**

- Chapter 3: Proposed recommendation to allow the use of reflective paint or reflective tape on hydrants.
- Chapters 4, 5, 6, 7: Proposed recommendation to allow a company, business, or person(s) exempt from Workers' Compensation laws of the State (19 **Del.C.** Ch. 23 – Workers' Compensation) be licensed by providing written documentation to the Office of the State Fire Marshal stating the exemption.
- Chapter 5 and 7: Proposed recommendation to reflect the requirement in 16 **Del.C.** §6603(c) – to have a NICET – Level II – Inspection and Testing of Water-based Systems certification to be licensed to do testing and inspection on water based fire protection systems.

## **Part IV**

- Chapter 1: Proposed Regulations addressing Fire Safe Cigarettes.

## **Part V**

- Chapter 1: Proposed recommendations to the Gated Communities section.
- Chapter 5: Two public proposals submitted to revise the Fire Lane requirements.

## **Appendix E**

- Defines the meaning of “apartment complex”

3. Gil Moniz offered public comment in support of accepting the Fire Marshal’s recommendation to adopt the 2008 electrical code.

4. Ron Gahagan, Assistant General Counsel, Altria Client Services Inc., on behalf of Phillip Morris USA, Inc., offered public comment consistent with his written submission regarding proposed changes to Chapter 1 under Section 704 of the proposed regulations related to Reduced Ignition Propensity Cigarettes.

5. Michael Morton, a statistician with Altria Client Services Inc., on behalf of Phillip Morris USA, Inc., offered public comment recommending that the Commission not put a specific testing and sampling protocol in the regulations.

6. Ed Osienski offered public comment on behalf of Local 669 in regard to the NICET II qualifications. Mr. Osienski stated that he represents 110 sprinkler installers in the State of Delaware. He would like to have seen the law worded differently to give employers more time for testing periods. The current compliance date was July 1, 2009. Mr. Osienski stated that he understood that issue would require a change to the law.

## **Findings of Fact**

Based upon the evidence received, the Commission finds the following facts to be supported by the evidence:

1. There was no public comment presented at the public hearing in opposition to any of the proposed regulations with the exception of the implementation of regulations governing Reduced Ignition Propensity Cigarettes, Chapter 1 under Section 704.

2. The Commission has no authority to extend by regulation the effective date for the NICET II requirements that became effective on July 1, 2009.

3. In written correspondence, and at the hearing, Ron Gahagan raised a number of suggestions to clarify the regulations governing Reduced Ignition Propensity Cigarettes as proposed in Chapter 1 under Section 704. The Commission also received statistical information from Mr. Morton as to why it should not establish testing and sampling protocols.

4. The Commission finds that the issues raised by Mr. Gahagan and Mr. Morton on behalf of Altria Client Services Inc., on behalf of Phillip Morris USA, Inc., should be referred back to the Fire Marshal for further review using his expertise in the subject matter before implementing Reduced Ignition Propensity Cigarettes regulations. As a result, the Commission determined to delete the proposed regulations in Chapter 1 under Section 704 at this time. The Commission will reserve section and consider republishing Reduced Ignition Propensity Cigarette regulations at another public hearing to be held at a future date.

## **The Law**

The State Fire Prevention Commission’s rulemaking authority is provided by 16 **Del.C.** 6603 State Fire Commission Promulgation of Regulations:

“(a) The State Fire Prevention Commission shall have the power to promulgate, amend and repeal regulations for the safeguarding of life and property from the hazards of fire and explosion...”

### **Decision and Effective Date**

The Commission hereby adopts the amendments to the regulations to be effective 10 days following publication of this Order in the *Register of Regulations*. The Commission relies upon its expertise in this area and the evidence presented in the testimony and documents submitted.

### **Text and Citation**

The Commission hereby adopts the Regulations as published in *Register of Regulations*, Vol. 13, Issue 12, July 1, 2009 with the alterations to Section 704 noted in this Order. A copy of the Regulations as adopted is attached to this Order as Exhibit A.

**IT IS SO ORDERED this 20<sup>th</sup> day of October 2009.**

### **STATE FIRE PREVENTION COMMISSION**

Marvin C. Sharp, Chairman  
Bob Ricker, Vice-Chairman  
Willard (Bill) Betts  
Ron Marvel

Kenneth H. McMahon  
Douglas S. Murray, Sr.  
David J. Roberts

## **Delaware State Fire Prevention Regulations Summary of Proposed Recommendations for 2009**

### **701 Administration and Enforcement**

- Chapter 2: New Definitions and recommended changes from the High Rise Committee.
- Chapter 4: Revision on Limitations of Plan Review approvals and permits.
- ANNEX A: Recommendation to adopt the most recent editions of NFPA Codes and Standards that are presently adopted by the Regulation.
- ANNEX B: Recommendations to update the proper section and paragraph numbers from the adopted NFPA Codes and Standards that are presently amended by the Regulation, including NFPA 1; which is being moved from Annex C to Annex B.

### **702 Fire Protection in Building Construction**

- Chapter 3, 4, and 5: Proposed recommendations to the High Rise and Large Area building Chapters as proposed by the High Rise Committee.

### **703 Installation, Operation, Maintenance, Testing and Sales of Signalling Systems, Fire Protection Systems and Fire Extinguishers**

- Chapter 3: Proposed recommendation to allow the use of reflective paint or reflective tape on hydrants.
- Chapters 4, 5, 6, 7: Proposed recommendation to allow a company, business, or person(s) exempt from Workers' Compensation laws of the State (19 **Del.C.** Ch. 23 - Workers' Compensation) be licensed by providing written documentation to the Office of the State Fire Marshal stating the exemption.
- Chapter 5 and 7: Proposed recommendation to reflect the requirement in 16 **Del.C.** §6603(c) - to have a NICET - Level II - Inspection and Testing of Water-based Systems certification to be licensed to do testing and inspection on water based fire protection systems.

## **704 Hazardous Processes and Operations**

- Chapter 1: Proposed Regulations addressing Fire Safe Cigarettes.

## **705 General Fire Safety**

- Chapter 1: Proposed recommendations to the Gated Communities section.

## **706 Specific Occupancy Requirements**

- Chapter 1 Intermediate Care Facilities for the Mentally Retarded (ICFMR)
- Chapter 2 Bed and Breakfasts
- Chapter 3 Apartment Buildings/Multi-Family Dwellings

## **Appendix E**

- Defines the meaning of "apartment complex"

## **701 Administration and Enforcement**

### ***(Break in Continuity)***

### **Chapter 2 Definitions**

#### **1.0 Definitions.**

Words and phrases defined in this chapter are intended for use with all sections of these Regulations. Definitions set forth in any document referenced by these Regulations shall be the acceptable definition for use in that document as well as any other document or chapter referenced. Words and phrases not specifically defined in these Regulations or other referenced documents, shall be read with their context and shall be construed according to the common and approved usage of the English language. Technical words and phrases not defined herein which have acquired a particular and appropriate meaning in the industry shall be construed and understood according to the appropriate meaning.

### ***(Break in Continuity)***

**"High Rise Building"** Any building ~~which is over five (5) stories or fifty feet~~ that exceeds 75 feet in height.

**"High Hazard Occupancy"** Any building or area classified as high hazard within the Life Safety Code, NFPA 101, or as extra hazard within the Standard for the Installation of Sprinkler Systems, NFPA 13.

**"HVAC"** Systems or components which provide heating, ventilation, and air conditioning to a building or structure.

**"Incidental Use"** Where the use is supplemental to the main use of the building and the area devoted to such use does not occupy more than ten percent of the area of any floor, the building shall be classified according to the main use. Additionally, where the incidental use is a higher hazard than the main use, it shall be constructed and separated by fire resistance rated construction as required in this code.

**"Inclined Wheel Chair Lift"** A powered hoisting and lowering mechanism to transport mobility-impaired persons on a guided platform that travels on an incline.

**"Industrial Occupancy"** All buildings used for making products of all kinds and properties devoted to operations such as processing, assembly, mixing, packaging, finishing or decorating, and repairing.

**"Inimicable Hazard"** A condition or practice in an occupancy or structure that poses a danger that could reasonably be expected to cause death, serious physical harm, or serious property loss.

**"Institutional Occupancy"** All buildings used for purposes such as medical or other treatment or care of persons suffering from physical or mental illness, disease or infirmity; for the care of infants, convalescents or aged persons; and for penal or corrective purposes. Institutional buildings provide sleeping facilities for the occupants and are occupied by persons who are mostly incapable of self preservation because of age, physical or mental disability, or because of security measures not under the occupants' control.

**"Internal Fire Separation"** A wall, floor or wall/floor assembly constructed to meet specific standards for resisting the spread of fire and smoke.

**"Large Area Building"** Any building that exceeds ~~sixty thousand (60,000)~~ one hundred thousand (100,000) square feet gross floor area on any one floor.

**"License"** An official document issued by the State Fire Marshal for the purpose of authorizing performance of an activity on an annual basis.

**"Listed"** Equipment or materials included in a list published by an organization acceptable to the State Fire Marshal and concerned with product evaluation, that maintains periodic inspection of production of listed equipment or materials and whose listing states either that the equipment or material meets appropriate standards or has been tested and found suitable for use in a specified manner.

**"Loose House"** A separate detached building in which unbaled combustible fibers are stored.

**"Marine Vessel"** Every description of water craft or other artificial contrivance used as a means of transportation in or on the water.

**"Mercantile Occupancy"** All buildings used as shopping centers, stores, markets and rooms for the display and sale of merchandise. Mercantile occupancies are broken down into three (3) classes as noted below.

**"Class A"** All stores having aggregate gross area of 30,000 square feet or more, or utilizing more than three floor levels.

**"Class B"** All stores of less than 30,000 square feet aggregate gross area, but over 3,000 square feet or utilizing any floors above or below street floor level.

**"Class C"** All stores of 3,000 square feet or less aggregate gross area and limited to street floor only.

**"Mid Rise Building"** Any building within the following occupancy classification that exceeds 50 feet in height and up to 75 feet in height.

Health Care Occupancies

Ambulatory Health Care

Detention and Correction Occupancies

Residential to include Hotels, Dormitories, Lodging and Rooming Houses,

Apartments/Condominiums, Residential Board and Care

**(Break in Continuity)**

## **Chapter 4 Submittal of Plans**

**(Break in Continuity within Chapter)**

### **8.0 Limitation of Plan Approval.**

- 8.1 ~~Plan approvals~~ Plans submitted for review, other than Site plans, are valid for ~~one~~ two years from the date of issue. If no construction has started ~~at~~ by the end of this period, the plan ~~approvals~~ review approval, non-approval, and permit issued and ~~permits~~ shall be null and void.
- 8.2 Prior to issuing a new permit ~~the State Fire Marshal may require the~~ submittal of new plans and the payment of another fee shall be required.

## Annex A, Adopted NFPA Codes & Standards Numerical Listing

Each of the following Codes and Standards, published by the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269, are hereby adopted in their entirety with the exception of any changes, additions or deletions as listed in Annex B of these Regulations as a supplement and addition to the Delaware State Fire Prevention Regulations. The text of these adopted Codes and Standards shall be fully enforceable as provisions of these Regulations as if the same were incorporated and set forth at length herein. If a newer Code or Standard has been adopted and issued by the National Fire Protection Association, the State Fire Marshal may accept the newer Code or Standard as an alternative, provided that such Code or Standard affords an equivalent level of safety in the opinion of the State Fire Marshal. Where the Codes or Standards as listed herein, are updated versions of adopted Codes or Standards, the updated versions will replace the existing versions in these Regulations.

NFPA NO.	Date of Publication	Title
1 <sup>1,3</sup>	2009	NFPA 1, Fire Code
10 <sup>1</sup>	2007	Portable Fire Extinguishers
11	2005	Low-, Medium-, and High-Expansion Foam
12 <sup>1</sup>	2008	Carbon Dioxide Extinguishing Systems
12A <sup>1</sup>	2009	Halon 1301 Fire Extinguishing Systems
13 <sup>1,3</sup>	2007	Installation of Sprinkler Systems
13D <sup>1,3</sup>	2007	Installation of Sprinkler Systems in One- and Two- Family Dwellings and Manufactured Homes
13R <sup>1,3</sup>	2007	Installation of Sprinkler Systems in Residential Occupancies Up To and Including Four Stories in Height
14 <sup>1,3</sup>	2007	Installation of Standpipe and Hose Systems
15 <sup>1</sup>	2007	Water Spray Fixed Systems for Fire Protection
16 <sup>1</sup>	2007	Installation of Foam-Water Sprinkler and Foam-Water Spray Systems
17 <sup>1</sup>	2009	Dry Chemical Extinguishing Systems
17A <sup>1</sup>	2009	Wet Chemical Extinguishing Systems
18	2006	Wetting Agents
20 <sup>1</sup>	2007	Installation of Stationary Pumps for Fire Protection
22 <sup>1</sup>	2008	Water Tanks for Private Fire Protection
24 <sup>1</sup>	2007	Installation of Private Fire Service Mains and Their Appurtenances
25 <sup>1</sup>	2008	Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems
30 <sup>1,3</sup>	2008	Flammable and Combustible Liquids Code
30A <sup>1,3</sup>	2008	Motor Fuel Dispensing Facilities and Repair Garages
30B <sup>1</sup>	2007	Manufacture and Storage of Aerosol Products
31 <sup>1</sup>	2006	Installation of Oil-Burning Equipment
32 <sup>1</sup>	2007	Drycleaning Plants
33 <sup>1</sup>	2007	Spray Application Using Flammable and Combustible Materials
34 <sup>1</sup>	2007	Dipping and Coating Processes Using Flammable or Combustible Liquids
35	2005	Manufacture of Organic Coatings

36 <sup>1</sup>	2009	Solvent Extraction Plants
37 <sup>1</sup>	2006	Installation and Use of Stationary Combustion Engines and Gas Turbines
40 <sup>1</sup>	2007	Storage and Handling of Cellulose Nitrate Film
42 <sup>1</sup>	2009	Storage of Pyroxylin Plastic
45	2004	Fire Protection for Laboratories Using Chemicals
51 <sup>1</sup>	2007	Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting, and Allied Processes
51A <sup>1</sup>	2006	Acetylene Cylinder Charging Plants
51B <sup>1</sup>	2009	Fire Prevention During Welding, Cutting, and other Hot Work
52 <sup>1</sup>	2009	Vehicular Fuel Systems
54 <sup>1,3</sup>	2009	National Fuel Gas
55 <sup>1</sup>	2009	Storage, Use, and Handling of Compressed Gases and Cryogenic Fluids in Portable and Stationary Containers, Cylinders and Tanks
58 <sup>1,3</sup>	2008	Liquefied Petroleum Gas Code
59 <sup>1</sup>	2008	Utility LP-Gas Plant
59A <sup>1</sup>	2009	Production, Storage and Handling of Liquefied Natural Gas (LNG)
61 <sup>1</sup>	2008	Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities
68 <sup>1</sup>	2007	Venting of Deflagrations
69 <sup>1</sup>	2007	Explosion Prevention Systems
70 <sup>1,3</sup>	2008	National Electrical Code
72 <sup>1</sup>	2007	National Fire Alarm Code
73	2006	Electrical Inspection Code for Existing Dwellings
75 <sup>1</sup>	2009	Protection of Information Technology Equipment
76 <sup>1</sup>	2009	Fire Protection for Telecommunications Facilities
79 <sup>1</sup>	2007	Electrical Standard for Industrial Machinery
80 <sup>1</sup>	2007	Fire Doors and Fire Windows
82 <sup>1</sup>	2009	Incinerators and Waste and Linen Handling Systems and Equipment
86 <sup>1</sup>	2007	Ovens and Furnaces
88A <sup>1</sup>	2007	Parking Structures
90A <sup>1</sup>	2009	Installation of Air Conditioning and Ventilating Systems
90B	2006	Installation of Warm Air Heating and Air Conditioning Systems
91	2004	Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids
92A <sup>1</sup>	2009	Smoke-Control Systems Utilizing Barriers and Pressure Differences
92B <sup>1</sup>	2009	Smoke Management Systems in Malls, Atria and Large Spaces
96 <sup>1</sup>	2008	Ventilation Control and Fire Protection of Commercial Cooking Operations
99 <sup>3</sup>	2005	Health Care Facilities
101 <sup>1,3</sup>	2009	Life Safety Code
102 <sup>1</sup>	2006	Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures
110	2005	Emergency and Standby Power Systems
111	2005	Stored Electrical Energy Emergency and Standby Power Systems

120	2004	Fire Prevention and Control in Coal Mines
140 <sup>2</sup>	2004	Motion Picture and Television Production Studio and Approved Production Facilities
150 <sup>2</sup>	2009	Fire and Life Safety in Animal Housing Facilities
160 <sup>2</sup>	2006	Standard for the Use of Flame Effects Before an Audience
170 <sup>1</sup>	2009	Fire Safety and Emergency Symbols
211 <sup>1</sup>	2006	Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances
214	2005	Water-Cooling Towers
220 <sup>1</sup>	2009	Types of Building Construction
221 <sup>1</sup>	2009	High Challenge Fire Walls, Fire Walls, and Fire Barrier Walls
232 <sup>1</sup>	2007	Protection of Records
241 <sup>1</sup>	2009	Safeguarding Construction, Alteration, and Demolition Operations
302	2004	Fire Protection Standard for Pleasure and Commercial Motor Craft
303	2006	Fire Protection Standard for Marinas and Boatyards
306 <sup>1</sup>	2009	Control of Gas Hazards on Vessels
307	2006	Construction and Fire Protection of Marine Terminals, Piers and Wharves
312	2006	Fire Protection of Vessels During Construction, Conversion, Repair and Lay-up
326	2005	Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair
407 <sup>1</sup>	2007	Aircraft Fuel Servicing
408	2004	Aircraft Hand Portable Fire Extinguishers
409	2004	Aircraft Hangars
410	2004	Aircraft Maintenance
415 <sup>1</sup>	2008	Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways
418 <sup>1</sup>	2006	Heliports
430	2004	Storage of Liquid and Solid Oxidizers
434	2002	Storage of Pesticides
484 <sup>1</sup>	2009	Combustible Metals
490	2002	Storage of Ammonium Nitrate
495	2006	Explosive Materials
496 <sup>1</sup>	2008	Purged and Pressurized Enclosures for Electrical Equipment
498	2006	Safe Havens and Interchange Lots for Vehicles Transporting Explosives
501 <sup>1</sup>	2009	Manufactured Housing
501A <sup>1</sup>	2009	Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities
502 <sup>1</sup>	2008	Road Tunnels, Bridges, and Other Limited Access Highways
505	2006	Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations
560 <sup>1</sup>	2007	Storage, Handling, and Use of Ethylene Oxide for Sterilization and Fumigation
654 <sup>1</sup>	2006	Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids
655 <sup>1</sup>	2007	Prevention of Sulfur Fires and Explosions
664 <sup>1</sup>	2007	Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities
703 <sup>1</sup>	2009	Fire Retardant-Treated Wood and Fire-Retardant Coatings for Building Materials
704 <sup>1</sup>	2007	Identification of the Hazards of Materials for Emergency Response



750 <sup>1</sup>	2006	Water Mist Fire Protection Systems
780 <sup>1</sup>	2008	Installation of Lightning Protection Systems
804 <sup>1</sup>	2006	Fire Protection for Advanced Light Water Reactor Electric Generating Plants
909 <sup>1</sup>	2009	Protection of Cultural Resources Properties – Museums, Libraries, and Places of Worship
1122 <sup>1</sup>	2008	Model Rocketry
1123	2006	Fireworks Display
1124	2006	Manufacturer, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles
1125 <sup>1</sup>	2007	Manufacture of Model Rocket and High Power Rocket Motors
1126	2006	Use of Pyrotechnics before a Proximate Audience
1127 <sup>1</sup>	2008	High Power Rocketry
1142 <sup>1</sup>	2007	Water Supplies for Suburban and Rural Fire Fighting
1221 <sup>1</sup>	2007	Installation, Maintenance, and Use of Emergency Services Communication s Systems
1961 <sup>1</sup>	2007	Fire Hose
1962 <sup>1</sup>	2008	Inspection, Care, and Use of Fire Hose, Couplings, and Nozzles and the Service Testing of Fire Hose
1963 <sup>1</sup>	2009	Fire Hose Connections
2001 <sup>1</sup> 2008	Clean Agent Fire Extinguishing Systems	

(1) Updated Document; (2) New Document; (3) Amended Document, See Annex B.

#### **Annex A, Adopted NFPA Codes & Standards Alphabetical Listing**

Each of the following Codes and Standards, published by the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269, are hereby adopted in their entirety with the exception of any changes, additions or deletions as listed in Annex B of these Regulations as a supplement and addition to the Delaware State Fire Prevention Regulations. The text of these adopted Codes and Standards shall be fully enforceable as provisions of these Regulations as if the same were incorporated and set forth at length herein. If a newer Code or Standard has been adopted and issued by the National Fire Protection Association, the State Fire Marshal may accept the newer Code or Standard as an alternative, provided that such Code or Standard affords an equivalent level of safety in the opinion of the State Fire Marshal. Where the Codes or Standards as listed herein, are updated versions of adopted Codes or Standards, the updated versions will replace the existing versions in these Regulations.

51A <sup>1</sup>	2006	Acetylene Cylinder Charging Plants
407 <sup>1</sup>	2007	Aircraft Fuel Servicing
408	2004	Aircraft Hand Portable Fire Extinguishers
409	2004	Aircraft Hangars
410	2004	Aircraft Maintenance
415 <sup>1</sup>	2008	Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways
12 <sup>1</sup>	2008	Carbon Dioxide Extinguishing Systems
211 <sup>1</sup>	2006	Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances

2001 <sup>1</sup>	2008	Clean Agent Fire Extinguishing Systems
484 <sup>1</sup>	2009	Combustible Metals
307	2006	Construction and Fire Protection of Marine Terminals, Piers and Wharves
306 <sup>1</sup>	2009	Control of Gas Hazards on Vessels
51 <sup>1</sup>	2007	Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting, and Allied Processes
34 <sup>1</sup>	2007	Dipping and Coating Processes Using Flammable or Combustible Liquids
17 <sup>1</sup>	2009	Dry Chemical Extinguishing Systems
32 <sup>1</sup>	2007	Drycleaning Plants
73	2006	Electrical Inspection Code for Existing Dwellings
79 <sup>1</sup>	2007	Electrical Standard for Industrial Machinery
110	2005	Emergency and Standby Power Systems
91	2004	Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids
495	2006	Explosive Materials
69 <sup>1</sup>	2007	Explosion Prevention Systems
150 <sup>2</sup>	2009	Fire and Life Safety in Animal Housing Facilities
1 <sup>1,3</sup>	2009	Fire Code
80 <sup>1</sup>	2007	Fire Doors and Fire Windows
1961 <sup>1</sup>	2007	Fire Hose
1963 <sup>1</sup>	2009	Fire Hose Connections
1123	2006	Fireworks Display
120	2004	Fire Prevention and Control in Coal Mines
51B <sup>1</sup>	2009	Fire Prevention During Welding, Cutting, and other Hot Work
804 <sup>1</sup>	2006	Fire Protection for Advanced Light Water Reactor Electric Generating Plants
45	2004	Fire Protection for Laboratories Using Chemicals
303	2006	Fire Protection Standard for Marinas and Boatyards
302	2004	Fire Protection Standard for Pleasure and Commercial Motor Craft
76 <sup>1</sup>	2009	Fire Protection for Telecommunications Facilities
312	2006	Fire Protection of Vessels During Construction, Conversion, Repair and Lay-up
703 <sup>1</sup>	2009	Fire Retardant-Treated Wood and Fire-Retardant Coatings for Building Materials
170 <sup>1</sup>	2009	Fire Safety and Emergency Symbols
501A <sup>1</sup>	2009	Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities
505	2006	Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations
30 <sup>1,3</sup>	2008	Flammable and Combustible Liquids Code
102 <sup>1</sup>	2006	Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures
99 <sup>3</sup>	2005	Health Care Facilities
418 <sup>1</sup>	2006	Heliports
12A <sup>1</sup>	2009	Halon 1301 Fire Extinguishing Systems
221 <sup>1</sup>	2009	High Challenge Fire Walls, Fire Walls, and Fire Barrier Walls

1127 <sup>1</sup>	2008	High Power Rocketry
704 <sup>1</sup>	2007	Identification of the Hazards of Materials for Emergency Response
82 <sup>1</sup>	2009	Incinerators and Waste and Linen Handling Systems and Equipment
1962 <sup>1</sup>	2008	Inspection, Care, and Use of Fire Hose, Couplings, and Nozzles and the Service Testing of Fire Hose
25 <sup>1</sup>	2008	Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems
90A <sup>1</sup>	2009	Installation of Air Conditioning and Ventilating Systems
16 <sup>1</sup>	2007	Installation of Foam-Water Sprinkler and Foam-Water Spray Systems
780 <sup>1</sup>	2008	Installation of Lightning Protection Systems
1221 <sup>1</sup>	2007	Installation, Maintenance, and Use of Emergency Services Communication s Systems
31 <sup>1</sup>	2006	Installation of Oil-Burning Equipment
24 <sup>1</sup>	2007	Installation of Private Fire Service Mains and Their Appurtenances
13 <sup>1,3</sup>	2007	Installation of Sprinkler Systems
13D <sup>1,3</sup>	2007	Installation of Sprinkler Systems in One- and Two- Family Dwellings and Manufactured Homes
13R <sup>1,3</sup>	2007	Installation of Sprinkler Systems in Residential Occupancies Up To and Including Four Stories in Height
14 <sup>1,3</sup>	2007	Installation of Standpipe and Hose Systems
20 <sup>1</sup>	2007	Installation of Stationary Pumps for Fire Protection
37 <sup>1</sup>	2006	Installation and Use of Stationary Combustion Engines and Gas Turbines
90B	2006	Installation of Warm Air Heating and Air Conditioning Systems
101 <sup>1,3</sup>	2009	Life Safety Code
58 <sup>1,3</sup>	2008	Liquefied Petroleum Gas Code
11	2005	Low-, Medium-, and High-Expansion Foam
501 <sup>1</sup>	2009	Manufactured Housing
1125 <sup>1</sup>	2007	Manufacture of Model Rocket and High Power Rocket Motors
35	2005	Manufacture of Organic Coatings
30B <sup>1</sup>	2007	Manufacture and Storage of Aerosol Products
1124	2006	Manufacturer, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles
1122 <sup>1</sup>	2008	Model Rocketry
140 <sup>2</sup>	2004	Motion Picture and Television Production Studio and Approved Production Facilities
30A <sup>1,3</sup>	2008	Motor Fuel Dispensing Facilities and Repair Garages
70 <sup>1,3</sup>	2008	National Electrical Code
72 <sup>1</sup>	2007	National Fire Alarm Code
54 <sup>1,3</sup>	2009	National Fuel Gas
86 <sup>1</sup>	2007	Ovens and Furnaces
88A <sup>1</sup>	2007	Parking Structures
10 <sup>1</sup>	2007	Portable Fire Extinguishers
654	2006	Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids

664 <sup>1</sup>	2007	Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities
61 <sup>1</sup>	2008	Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities
655 <sup>1</sup>	2007	Prevention of Sulfur Fires and Explosions
59A <sup>1</sup>	2009	Production, Storage and Handling of Liquefied Natural Gas (LNG)
909 <sup>1</sup>	2009	Protection of Cultural Resources Properties – Museums, Libraries, and Places of Worship
75 <sup>1</sup>	2009	Protection of Information Technology Equipment
232 <sup>1</sup>	2007	Protection of Records
496 <sup>1</sup>	2008	Purged and Pressurized Enclosures for Electrical Equipment-
502 <sup>1</sup>	2008	Road Tunnels, Bridges, and Other Limited Access Highways
498	2006	Safe Havens and Interchange Lots for Vehicles Transporting Explosives
241 <sup>1</sup>	2009	Safeguarding Construction, Alteration, and Demolition Operations
326	2005	Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair
92A <sup>1</sup>	2009	Smoke-Control Systems Utilizing Barriers and Pressure Differences
92B <sup>1</sup>	2009	Smoke Management Systems in Malls, Atria and Large Spaces
36 <sup>1</sup>	2009	Solvent Extraction Plants
33 <sup>1</sup>	2007	Spray Application Using Flammable and Combustible Materials
40 <sup>1</sup>	2007	Storage and Handling of Cellulose Nitrate Film
560 <sup>1</sup>	2007	Storage, Handling, and Use of Ethylene Oxide for Sterilization and Fumigation
490	2002	Storage of Ammonium Nitrate
430	2004	Storage of Liquid and Solid Oxidizers
434	2002	Storage of Pesticides
42 <sup>1</sup>	2009	Storage of Pyroxylin Plastic
55 <sup>1</sup>	2009	Storage, Use, and Handling of Compressed Gases and Cryogenic Fluids in Portable and Stationary Containers, Cylinders and Tanks
111	2005	Stored Electrical Energy Emergency and Standby Power Systems
220 <sup>1</sup>	2009	Types of Building Construction
160 <sup>2</sup>	2006	Use of Flame Effects Before an Audience, Standard for the
1126	2006	Use of Pyrotechnics before a Proximate Audience
59 <sup>1</sup>	2008	Utility LP-Gas Plant
52 <sup>1</sup>	2009	Vehicular Fuel Systems
96 <sup>1</sup>	2008	Ventilation Control and Fire Protection of Commercial Cooking Operations
68 <sup>1</sup>	2007	Venting of Deflagrations
214 <sup>1</sup>	2005	Water-Cooling Towers
750 <sup>1</sup>	2006	Water Mist Fire Protection Systems
15 <sup>1</sup>	2007	Water Spray Fixed Systems for Fire Protection
1142 <sup>1</sup>	2007	Water Supplies for Suburban and Rural Fire Fighting
22 <sup>1</sup>	2008	Water Tanks for Private Fire Protection
17A <sup>1</sup>	2009	Wet Chemical Extinguishing Systems
18	2006	Wetting Agents

(1) Updated Document; (2) New Document; (3) Amended Document, See Annex B.

## **Annex B, Additions, Deletions, and Changes to Codes and Standards Listed in Annex A**

The following additions, deletions, or changes to the codes and standards listed in Annex A are hereby adopted.

### **MODIFY NFPA 1, ~~2006 Uniform Fire Code~~ Fire Code, 2009**

#### **Chapter 1 Administration**

DELETE entire Chapter 1 except 1.12

MODIFY 1.12.1 to read as follows

**1.12.1 Permits.** All permits required by another section of NFPA 1 shall comply with the requirements of the Delaware State Fire Prevention Regulations in effect.

DELETE 1.12.2 through 1.12.7

#### **Chapter 10 General Fire Safety**

MODIFY Chapter 10 – General Fire Safety as noted:

**10.1.2\*** Life Safety Code. Every new building shall comply with this Code and NFPA 101, Life Safety Code.

DELETE

**10.1.3 Building Code**

DELETE

**10-4.3**

DELETE

**10.9 Emergency Plans**

**MODIFY 10.11** as follows:

10.11.5\*

**10.11.2.1\*** It shall be unlawful to set fires to any brush or forest-covered land during anytime when a burning ban, as declared by the State Fire Marshal, is in effect.

**A-10.11.5**

**A-10.11.2.1** Department of Natural Resources Environmental Control (DNREC) should be contacted for their additional burning restrictions at (800) 662-8802 or (302) 739-9401 before performing any outdoor burning.

**10-11.6.1** Listed electrical equipment ~~permanently~~ installed in accordance with its listing, applicable codes, and manufacturing instructions shall be permitted. Equipment that involves the kindling of a combustible material, regardless if a gas, liquid, or solid, is prohibited.

#### **Section 10-12 Fire Protection Markings**

#### **~~10.12.1 Premises Identification.~~**

DELETE 10.12.1 and ~~10.12.1.1 through 10.12.2~~

#### **Section 10.14 Combustible Vegetation**

DELETE section ~~10.14.1~~ and Table ~~10.14.1~~ 10.14.1.1

DELETE Table 10.14.1.1

#### **Section 10.15 Special Outdoor Events, Carnivals, and Fairs.**

**10.15.4 Standby Fire Personnel.** Where required by the AHJ, standby fire personnel shall be provided and comply with the requirements established by the State Fire Marshal.

#### **~~10.15.11.13~~ 10.15.11.4 Fireworks.**

**~~10.15.11.13.2~~ 10.15.11.4.2** The use of display fireworks shall comply with the Delaware State Fire Prevention Regulations in addition to the requirements of ~~10.15.11.13~~ 10.15.11.4.

### **Chapter 13 Fire Protection Systems**

#### **AMEND 13.2.2.1 to read,**

**13.2.2.1** Where required by 702, Chapter 4-2 of the Delaware State Fire Prevention Regulations, this code, or the referenced codes and standards in ~~Chapter 2~~ the Delaware State Fire Prevention Regulations, standpipe systems shall be installed in accordance 13.2.1.

#### **AMEND 13.2.3.3 to read,**

**13.2.3.3** A standpipe system installed in accordance with this code shall be inspected, tested, and maintained in accordance with NFPA 25, *Standard for the Inspection, Testing And Maintenance of Water Based Fire Protection Systems* and Regulation 703, Chapter 1-4 of the Delaware State Fire Prevention Regulations.

#### **Section 13.3 Automatic Sprinkler**

##### **AMEND 13.3.2.1 to read,**

**13.3.2.1** Where required by 702, Chapter 4 Section 1.0 of the Delaware State Fire Prevention Regulations, this code, or the referenced codes and standards in ~~Chapter 2~~ the Delaware State Fire Prevention Regulations, automatic sprinkler systems shall be installed in accordance 13.3.1”.

##### **AMEND 13.3.2.3 to read,**

**13.3.2.3** Where not otherwise required by the Delaware State Fire Prevention Regulation to be protected by automatic sprinklers, new fire stations should be protected by an approved automatic fire sprinkler system.

##### **AMEND 13.3.3.2 to read,**

**13.3.3.2** A sprinkler system installed in accordance with this code shall be inspected, tested, and maintained in accordance with NFPA 25, *Standard for the Inspection, Testing And Maintenance of Water Based Fire Protection Systems* and 703, Chapter 1 of the Delaware State Fire Prevention Regulations.

#### **13.3.2.18 One and Two-Family Dwellings**

DELETE 13.3.2.18.1 through 13.3.2.18.2

#### **Section 13.3 Automatic Sprinkler**

DELETE ~~13.3.4~~ 13.3.3.4.2 Impairments

### **Chapter 17 Wildland Urban Interface**

DELETE entire Chapter 17

## **Chapter 18 Fire Department Access and Water Supply**

DELETE entire Chapter 18

## **Chapter 19 Combustible Waste and Refuse**

DELETE entire Chapter 19

## **Chapter 20 Occupancy Fire Safety**

~~20.1.4.3 Open~~ **20.1.5.3 Open Flame Devices and Pyrotechnics.** No open flame devices or pyrotechnic devices shall be used in any assembly occupancy, unless otherwise permitted by the following:

(1) Pyrotechnic special effect devices shall be permitted to be used on stages before proximate audiences for ceremonial or religious purposes, as part of a demonstration in exhibits, or as part of a performance, provided that both of the following criteria are met:

(a) Precautions satisfactory to the AHJ are taken to prevent ignition of any combustible material.

(b) Use of the pyrotechnic device complies with the Delaware State Fire Prevention Regulations.

(2) Flame effects before an audience shall be permitted in accordance with the Delaware State Fire Prevention Regulations.

## **Chapter 22 Automobile Wrecking Yards**

### **22.7 Tire Storage.**

The storage of tires shall be in accordance with Chapter 34 and the Delaware State Fire Prevention Regulations.

**22.9.1 General.** The storage, use, and handling of motor vehicle fluids and hazardous materials shall be in accordance with ~~Chapter 60~~ Chapter 66 and the Delaware State Fire Prevention Regulations.

DELETE 22.9.4

## **Chapter 33 Outside Storage of Tires**

DELETE entire Chapter 33

## **Chapter 52 Stationary Lead-Acid Battery Systems**

DELETE 52.2.2.

## **Chapter 53 Mechanical Refrigeration**

DELETE ~~53.4.2~~ 53.1.3.2

## **Chapter 60 Hazardous Material**

DELETE entire Chapter 60

## **Chapter 64 Corrosive Solids & Liquids**

DELETE entire Chapter 64

## **Chapter 65 Explosives, Fireworks, & Model Rocketry**

DELETE entire Chapter 65

## **Chapter 67 Flammable Solids**

DELETE entire Chapter 67

## **Chapter 68 Toxic Solids & Liquids**

DELETE entire Chapter 68

## **Chapter 71 Pyrophoric Solids & Liquids**

DELETE entire Chapter 71

## **Chapter 72 Unstable Solids & Liquids**

DELETE entire Chapter 72

## **Chapter 73 Water Reactive Solids & Liquids**

DELETE entire Chapter

**MODIFY NFPA 13, ~~2002~~, 2007, Standard for the Installation of Sprinkler Systems.**

### **Chapter 6, System Components and Hardware.**

#### **6.8 Fire Department Connections.**

**Amend ~~6.8.1~~ Replace 6.8.1, 6.8.1.1 and 6.8.1.2 with a new section 6.8.1 to read as follows:**

**6.8.1** The fire department connection(s) shall use hose connections compatible with the local fire company.

### **Chapter 7, System Requirements**

**AMEND §7-3.2.1 (3) by adding a sentence and an appendix section to read as follows:**

#### **7.3.2 Preaction Systems.**

**7.3.2.1** Preaction systems shall be one of the following types:

- (1) A single interlock system, which admits water to sprinkler piping upon operation of detection devices
- (2) A non-interlock system, which admits water to sprinkler piping upon operation of detection devices or automatic sprinklers
- (3) A double interlock system, which admits water to sprinkler piping upon operation of both detection devices and automatic sprinklers. A double interlock preaction system shall not be used except where specifically acceptable to the State Fire Marshal Office.

**A-7-3.2.1 (3)** The design of double interlock preaction systems was intended for only specific applications, such as cold warehouse buildings, where the presence of water into cold pipe may result in ice plugs. These type systems are not intended for use in applications where single interlock preaction systems adequately reduce inadvertent filling of the piping.

### **Chapter 8, Installation Requirements.**

#### **~~8-14~~ 8.15 Special Situations**

**AMEND ~~§8-14.7~~ §8-15.7 by adding ~~§8-14.7.1.1~~ replacing §8.15.7.1 as follows and deleting §8.15.7.2, §8.15.7.3, and §8.15.7.4.**

**~~8-14.7.1.1~~ 8-15.7.1** Sprinklers shall be required on porches, balconies, corridors, and stairs, regardless of whether or not they are open to outside air.

#### **~~8-16~~ 8.17 System Attachments.**

#### **~~8-16.2~~ 8.17.2 Fire Department Connection.**



Amend ~~§8.16.2.4.6~~ §8.17.2.4.6 by deleting the existing ~~§8.16.2.4.6~~ §8.17.2.4.6 and inserting a new section to read as follows:

~~8.16.2.4.6~~ **8.17.2.4.6** Fire Department Connections shall be located or arranged as required by the Chief Officer of the fire department having jurisdiction according to the following:

(a) The Office of State Fire Marshal will give notice to the Chief Officer of a building that is proposed for construction that is to be protected with an automatic sprinkler system, and the Chief Officer must respond, in writing, within 5 working days, as to their requirement for the location of the fire department connection.

(b) In the event that the Chief Officer does not respond according to (a) of this Section, the Office of State Fire Marshal will determine the location for the fire department connection. This provision will permit the Office of State Fire Marshal to locate the fire department connection so that hose can be readily and conveniently attached; and the fire department connections will be located in a manner consistent with nationally recognized practices.

(c) Each fire department connection to sprinkler systems shall be designated by a sign having raised letters at least 1 in. (25.4 mm) in height cast on plate or fitting, reading service design, e.g., "AUTOSPRK", "OPEN SPRK AND STANDPIPE." A sign shall also indicate the pressure required at the inlets to deliver the greatest system demand.

*Exception to (c): The sign is not required where the system demand pressure is less than 150 psi (10.3 bars).*

#### **Chapter 14, Chapter 22, Plans and Calculations.**

#### **14.4 22.4 Hydraulic Calculation Procedures.**

#### **14.4.4 22.4.4 Calculation Procedures.**

~~14.4.4.10~~ For all systems, the design area shall be the hydraulically most demanding based on the criteria of Chapter 11, Chapter 12, or the special design approaches in accordance with the requirements of Chapter 21. A hydraulically designed sprinkler system shall be designed to provide a 10 PSI safety factor over and above the system demand.

#### **ADD new section 22.4.4.10.3 to read as follows:**

22.4.4.10.3 A hydraulically designed sprinkler system shall be designed to provide a 10 PSI safety factor over and above the system demand.

#### **MODIFY NFPA 13D, ~~2002~~, 2007, Standard for the Installation of Sprinkler Systems In One- And Two-Family Dwellings And Manufactured Homes.**

#### **Chapter 7, System Components.**

#### **7.6 Alarms.**

**AMEND §7.6**, Alarms, by modifying text to read as follows:

Local waterflow alarms shall be provided on all sprinkler systems. The alarm shall be of sufficient intensity to sound an alarm at 15 dBA above ambient noise level throughout all indoor areas of the protected property.

#### **MODIFY NFPA 13R, ~~2002~~, 2007, Standard for the Installation of Sprinkler Systems In Residential Occupancies Up To And Including Four Stories.**

#### **1.1 Scope**

This standard covers design and installation of automatic sprinkler systems for protection against fire hazards in residential occupancies up to and including ~~four~~ three stories in height and not exceeding 10,000 square feet in aggregate gross floor area.

#### **~~6.6.8~~ 6.7.8 Alarms.**

**AMEND ~~§6.6.8.4~~ §6.7.8.1, Alarms, by deleting ~~§6.6.8.4~~ revising §6.7.8.1 to read as follows:**

**~~6.6.8.4~~ 6.7.8.1** All residential (13R) sprinkler systems shall have a water flow alarm installed that will provide an audible sound. The alarm shall be of sufficient intensity to sound an alarm at 15 dBA above ambient noise level both inside and outside the residence.

**~~6.8~~ 6.9** Location of Sprinklers

**AMEND ~~§6.8.4~~, and ~~§6.8.6~~ §6.9 to read as follows:**

**~~6.8.4~~ 6.9.5** Sprinklers shall be required on porches, balconies, corridors, and stairs regardless of whether or not they are open to outside air.

**~~6.8.6~~ 6.9.7** Sprinklers shall be required in closets on exterior balconies regardless of whether or not it opens directly into the dwelling unit.

**MODIFY NFPA 14, 2003 2007, Standard for the Installation of Standpipe, Private Hydrant and Hose Systems.**

**Chapter 6, Installation Requirements.**

**~~6.3~~ 6.4 Fire Department Connections.**

**~~6.3.5~~ 6.4.5 Location and Identification.**

**AMEND ~~§6.3.5.2~~ §6.4.5 by deleting the existing ~~§6.3.5.2~~ §6.4.5.1.1, 6.4.5.2, and 6.4.5.2.1 and inserting a new section and replacing with a new §6.4.5.2 to read as follows:**

**6.4.5.2** Fire Department Connections shall be located or arranged as required by the Chief Officer of the fire department having jurisdiction according to the following:

(a) The Office of State Fire Marshal will give notice to the Chief Officer of a building that is proposed for construction that is to be protected with a standpipe system, and the Chief Officer must respond, in writing, within 5 working days, as to their requirement for the location of the fire department connection.

(b) In the event that the Chief Officer does not respond according to (a) of this Section, the Office of State Fire Marshal will determine the location for the fire department connection. This provision will permit the Office of State Fire Marshal to locate the fire department connection so that hose can be readily and conveniently attached; and the fire department connections will be located in a manner consistent with nationally recognized practices.

(c) Each fire department connection to standpipe systems shall be designated by a sign having raised letters at least 1 in. (25.4 mm) in size cast on the plate or fitting, reading, "STANDPIPE." If automatic sprinklers are also supplied by the fire department connection, the sign or combination of signs shall indicate both designated services, e.g., "STANDPIPE AND AUTOSPRK." or "AUTOSPRK AND STANDPIPE." A sign shall also indicate the pressure required at the inlets to deliver the system demand.

**Chapter 7, Design.**

**7.3 Location of Hose Connections.**

**7.3.2 Class I Systems**

**AMEND § 7.3.2 by deleting the 7.3.2.1**

**7.8\* Minimum and Maximum Pressure Limits.**

**7.8.1 Minimum Design Pressure for Hydraulically Designed Systems.**

**AMEND §7.8.1 by inserting a new section and a new Appendix section to read as follows:**

**7.8.1.2** Where the local fire department has the capability of providing the required pressure, hydraulically designed standpipe systems in fully sprinklered, non-highrise buildings shall be designed to provide the waterflow rate required by Section 7.10.

**A.7.8.1.2** It is not necessary to install a fire pump merely to provide minimum pressure to standpipe systems when the building is fully sprinklered, the sprinkler system is adequately designed to control a fire, and the responding fire department has the ability to sufficiently charge the standpipe system in a non highrise building. That is, an adequately designed sprinkler system is expected to control a fire and as the fire department arrives to finish extinguishment, they can provide the pressure in the standpipe system as needed.

**MODIFY NFPA 30, ~~2003~~ 2008 Flammable And Combustible Liquids Code.**

**~~Chapter 4, Tank Storage, Chapter 22. Storage of Liquids in Tanks — Aboveground Storage Tanks~~**

**~~4.3 Installation of Tank and Tank Appurtenances~~ 22.4 Location of Aboveground Storage Tanks.**

**~~4-3.2.1~~ 22.4.1 Location with Respect to Property Lines, Public Ways, and Important Buildings ~~on the Same Property.~~**

**AMEND ~~§4-3.2.1, §22.4.1~~ by adding a new an Exception to ~~Subsection 4-3.2.1.1,~~ to read as follows:**

*Exception: The State Fire Marshal may increase the distances to property lines, public ways and important buildings when in his opinion the increases are justified.*

**MODIFY NFPA 30A, ~~2003~~, 2008, Motor Fuel Dispensing and Repair Garages Code.**

**Chapter 5, Piping for Liquids.**

**5.2 General Requirements for All Piping**

**AMEND §5.2, General Requirements for All Piping to read as follows:**

**5.2.5** Each fill pipe shall be identified by color code or other marking to identify the product for which it is used. The color code or marking shall be maintained in legible condition throughout the life of the installation. All underground petroleum storage tank fill pipes shall be marked and maintained with colors and symbols consistent with API Recommended Practice 1637.

**Chapter 6, Fuel Dispensing System.**

**6.2 General Requirements.**

**AMEND §6.2, General Requirements, by adding new subsections to read as follows:**

**6.2.3** Dispensing units for kerosene shall not be located within 25' of Class I liquid dispensing units.

**6.2.4** Islands with dispensing units for kerosene shall be located a minimum of 10' from islands with Class I liquid dispensing units.

**6.2.5** Dispensing units for kerosene shall be provided with a legible sign, bearing the word "KEROSENE" in a minimum 4" high letter, with such letters to be in blue with a contrasting background color.

**Chapter 9, Operational Requirements.**

**9.2 Basic Requirements**

**9.2.1 Inventory Control**

**AMEND §9.2.1, Inventory Control by adding new subsections to read as follows:**

**9.2.1.1** The seasonal exchange of product shall be prohibited in underground storage tanks.

**9.2.1.2**No change of class of product within storage tanks shall be made without prior approval of the State Fire Marshal.

### **9.2.3 Dispensing Into Containers.**

**AMEND §9.2.3.2, Inventory Control** by adding a new subsection to read as follows:

**9.2.3.2.1**No sale or purchase of kerosene shall be made in containers unless such containers meet the provisions of this standard and are a color other than red with the word "KEROSENE" marked thereon. (The recommended color is blue with white lettering.)

## **Chapter 11, Marine Fueling**

### **11.10 Operating Requirements.**

**AMEND Chapter 11, Marine Fueling, by renumbering §11.10.6 to §11.10.6.1 and adding new §11.10.6.2, §11.10.6.3 and §11.10.6.4 to read as follows:**

**11.10.6.2**The dispensing of Class I Liquids into the fuel tanks of self-propelled water craft must be accomplished at a designated marine Service Station, and that service station must be in accordance with the applicable provisions of these Regulations.

**11.10.6.3\***The dispensing of Class I Liquids into the fuel tanks of self-propelled water craft shall be prohibited from a tank truck vehicle.

A-11.10.6.3 It is the express intent of this section to prohibit the transfer of Class I liquids from a tank truck vehicle directly into the fuel tanks of a boat or any other self-propelled water craft.

**11.10.6.4\*** The dispensing of Class II Liquids into the fuel tanks of self-propelled water craft, is permitted provided the tank truck vehicle is equipped with an automatic shut off nozzle.

A-11.10.6.4 This change is based on an appeal filed by the Delaware Captains Association. This appeal was heard by the State Fire Prevention Commission on September 20, 1994 and was subsequently approved by the State Fire Prevention Commission on September 20, 1994.

## **Chapter 13, Farms and Remote Sites**

### **13.1 Scope**

**AMEND §13.1 (1) to read as follows:**

(1) in rural areas

**MODIFY NFPA 54, ~~2006~~ 2009, National Fuel Gas Code.**

## **Chapter ~~40~~ 9, Installation of Specific Equipment.**

### **~~40.23~~ 9.23 Room Heaters.**

**~~40.23.4~~ 9.23.1** Unvented room heaters shall not be installed in bathrooms and bedrooms.

**Delete** Exception #1

**Delete** Exception #2

**MODIFY NFPA 58, ~~2004~~, 2008, Liquefied Petroleum Gases Code.**

## **Chapter 4, General Requirements.**

### **4.3 Notification Of Installations.**

**AMEND §4.3.1** Stationary Installations, by deleting the existing section and inserting two new subsections to read as follows:

**4.3.1.1\*** Plans shall be submitted to the Office of State Fire Marshal for review and approval for the following liquefied petroleum gas (LPG) installations:

- (a) At consumer sites having an aggregate water capacity of 1,000 gallons or more tank storage; and
- (b) For all portable cylinder exchange at consumer sites or dispensing stations, where not connected for use, and in storage for resale or exchange by dealer or reseller.

**A.4.3.1.1** This section still requires the submission of plans for all LP Gas installations with an aggregate capacity of 1,000 gallons or more, and now requires the submission of plans for all portable cylinder exchange installations.

**4.3.1.2\*** Plans shall be submitted to the Office of State Fire Marshal for review and approval regarding liquefied petroleum gas (LPG) installations for all sites and locations where LPG is dispensed by a retail operation to the public, regardless of tank storage capacity.

**A.4.3.1.2** Submission of plans for all LP Gas Installations where tanks are filled as a retail operation for the public.

Exception to 4.3.1.1. and 4.3.1.2: One- and Two-Family Dwellings are not required to comply with these sections.

## **Chapter 5, LP Gas Equipment and Appliances.**

### **~~5.18~~ 5.20 Appliances.**

**AMEND ~~§5.18.1, §5.20.1~~** by adding a subsection to read as follows:

**~~5.18.1.1~~ 5.20.1.1** **Patio Heaters** ~~Patio heaters shall be listed and for outdoor use only.~~

**5.20.1.1.1** Patio heaters shall be listed and for outdoor use only.

~~**A-5.18.1.1**~~ **A-5.20.1.1.1** All gas-fired heaters are to be used only in adequately ventilated areas. In order to support the combustion air requirements of the heater and to minimize the potential for the accumulation of carbon monoxide, ample fresh air ventilation in accordance with the Manufacturer's Installation Instructions and/or Owner's Manual should be provided.

**5.18.1.2 5.20.1.1.2** When used, they shall be located in an area either outside the confines of a building or an area sheltered from the elements by overhead cover that is open on all exterior sides. Any obstruction of the exterior boundary of the area by any material to any degree shall be prohibited. Walls, part walls or partitions, roll-down see-through curtains or drapes, awnings, or components by any other name shall be considered an obstruction.

~~**A-5.18.1.2**~~ **5.20.1.1.2** It should be further noted that roll-down and retractable materials are considered "not open". Since they are adjustable, it is expected that they will be less open during inclement weather in order to protect against the exposure

**Exception 1:** Exterior sides of the area do not include the wall(s) common to the deck/patio and the building to which the deck/patio adjoins.

~~A-5.18.1.2~~ **A-5.20.1.1.2 Exception 1:** Typically, most deck/patios will have three (3) exterior sides and one (1) side adjacent to the building.

~~5.18.1.3~~ **5.20.1.1.3** Hot surfaces of the appliance shall be at least 36 inches in all directions from all other materials. Clearances of less distance shall be permitted if in accordance with the Manufacturer's Installation Instructions and/or Owner's Manual

## **Chapter 6, Installation of LP-Gas Systems.**

### **~~6.23~~ 6.25 Fire Protection.**

**ADD New ~~§6.23.7~~ 6.25.7:**

**~~6.23.7~~ 6.25.7 Fire Protection At Bulk Plants.**

**~~6.23.7.4~~ 6.25.7.1 Application.** This section regulating bulk plants applies to facilities whose primary purpose is to receive gas by tank car, tank truck, or piping, and distribute the gas to the end user by use of portable container delivery, tank truck, or gas piping.

*Exception No. 1: ~~§6.23.7~~ 6.25.7 shall not apply to those facilities that fall within the definition of "REMOTE" with respect to location, as defined in ~~§6.23.7.2~~ 6.25.7.2. Under this exception, the requirements of ~~§6.23.7~~ 6.25.7.5, Water Supply for Fire Protection, are retained and required.*

### **~~6.23.7.2~~ 6.25.7.2 Definitions.**

**Remote.** A location for a facility that is termed to be remote is where a clear distance, with no inhabited or occupied buildings, are within 1,250 feet of any end of any LP-Gas storage tank, and within 1,250 feet of the side of any LP-Gas storage tank that is to be installed on the site; and the property area in question is owned or under the control of the owners of the tanks, and the property may not be built upon, inhabited, or occupied by any such occupancy other than that as may be associated with the operation of the LP-Gas storage facility.

**~~6.23.7.3~~\* 6.25.7.3\*** Notwithstanding any provisions of this Section to the contrary, all LP-Gas facilities having storage containers with a combined aggregate water capacity of more than 18,000 gallons, where LP-Gas is transferred from railcar to tank storage, from railcar to vehicle, from tank storage to vehicle, from vehicle to vehicle, from tank storage to railcar, or from vehicle to tank storage, shall incorporate the following additional fire protection measures:

(a) If the facility employs a total product containment system with emergency internal and shutoff valves having remote and thermal shutoff capability and pullaway protection, then the facility shall also employ:

(i) Non-automated fixed water monitor nozzle(s) of sufficient number and specification to saturate all areas of the tank which might be exposed to fire from piping, valves and pumps associated with filling or transfer operations (typically referred to as the "Business End" of the tank and including railroad tank car transfer points), or

(ii) Listed open sprinkler heads of sufficient number and specification to saturate all areas of the tank which might be exposed to fire from piping valves and pumps associated with filling or transferring operations (typically referred to as the "Business End" of the tank).

**~~A-6.23.7.3~~ 6.25.7.3 (a)(i) & (ii)** To cool a vessel receiving high-intensity flame impingement ("Business End") and to protect against vessel failure, an application rate of at least 0.25 gpm/sqft should be used to design. An application rate of 0.10 gpm/sqft should be used in the design for the rest of the vessel. API Standard 2510 Design and Construction of LPG Installations (1995 edition)

(iii) Heat sensors and hydro-carbon vapor detectors with off-site monitoring and reporting capability, installed according to the standards of the American Petroleum Institute (API) and applicable NFPA Standards as adopted and/or modified by these Regulations.

(b) If the facility does not employ a total product containment system with emergency internal and shutoff valves having remote and thermal shutoff capability and pullaway protection, then the facility shall employ:

(i) Automated water monitor nozzles of sufficient number and specification to saturate at least seventy-five percent (75%) of the total container surface, including the entire surface of each end of the container; and

**~~A-6.23.7.3~~ 6.25.7.3 (b)(i)** To cool a vessel receiving high-intensity flame impingement ("Business End") and to protect against vessel failure, an application rate of at least 0.25 gpm/sqft should be used to design. An application rate of 0.10 gpm/sqft should be used in the design for the rest of the vessel. API Standard 2510 Design and Construction of LPG Installations (1995 edition)

(ii) Heat sensors and hydrocarbon vapor detectors with off-site monitoring and reporting capability, installed according to the standards of the American Petroleum Institute (API) and applicable NFPA Standards as adopted and/or modified by these Regulations.

(c) For storage containers which are mounded, buried, or insulated, the additional fire protection measures specified in paragraphs (a) and (b) above shall not be required.

(d) Where water monitor nozzles are required, as specified by paragraphs (a) and (b) above, whether automated or non-automated, such water monitor nozzles shall be installed no further than 50 feet from the storage container serviced by such water monitor nozzles. Furthermore, such water monitor nozzles shall employ a hook-up connection for the use of the local fire department. If no protective barrier exists between the water monitor nozzles and said hook-up connection, then the hook-up connection shall be at least 100 feet from the water monitor nozzles. If a protective barrier exists between the water monitor nozzles and said hook-up connection, then the hook-up connection shall be at least 50 feet from the water monitor nozzles.

(e) Where water monitor nozzles are required, as specified by paragraphs (a) and (b) above, either automated or non-automated, plans and specifications for such water monitor nozzles shall be submitted for review in accordance with Regulation 701, Chapter 4 of these Regulations. During the plan review process, the Office of State Fire Marshal will contact the local fire chief for input as to the location of the hook-up connections for the water monitor nozzles.

**~~A-6.23.7.3~~ A.6.25.7.3 Total Product Containment System.** A total product containment system includes emergency internal and shutoff valves having remote and thermal capability and pullaway protection, such installation in accordance with standards and specifications of both the American Petroleum Institute (API) and NFPA 58.

**~~6.23.7.4~~ 6.25.7.4** No persons, other than the plant management or plant employees, shall have access to any bulk LP-Gas storage facility.

**~~6.23.7.5~~ 6.25.7.5** Water Supply For Fire Protection. Notwithstanding other provisions of these Regulations, water supply for fire protection shall be provided as follows for all bulk LP-Gas storage facilities:

(a) Tank/Piping Protection. A minimum water supply of 1,500 gpm for a minimum duration of 2 hours shall be required, and may be provided from a public water utility, from stored water on site (either in a tank with a hydrant or in a pond with a dry hydrant), or any combination of the foregoing.

(b) The water supply for fire protection as required in this section of this Regulation shall be the minimum water supply required. If the fire protection engineering design indicates an increase in the water supply for fire protection at a site, then the higher capacity water supply shall be the amount so required.

(c) If a detailed fire protection engineering analysis, based upon hydraulic calculations, demonstrates that the additional fire protection measures specified in Section ~~6.23.7.3~~ 6.25.7.3 of this Regulation requires less than the minimum water supply specified by paragraph (a) above, then the lesser capacity water supply shall be the amount so required.

(d) Water For Fire Department Operations. In addition to the minimum water supply specified by paragraph (a) above, a water supply of 500 gpm for a minimum duration of 1 hours shall be provided on site for fire department operations.

#### **~~6.23.7.6~~ 6.25.7.6 Fire Department Chief Officer.**

~~6.23.7.6.1~~ 6.25.7.6.1 The Office of State Fire Marshal shall hand deliver to the Fire Department Chief Officer having jurisdiction a site plan and set of structural or building plans that have been submitted for review and approval by the Office of State Fire Marshal; the Fire Department Chief Officer shall sign when accepting the plans from the Office of State Fire Marshal.

~~6.23.7.6.2~~ 6.25.7.6.2 Within ten working days of the Fire Department Chief Officer having received the plans and specifications as identified in ~~§6.23.7.6.4~~ §6.25.7.6.1 of this Regulation, the Fire Department Chief Officer shall respond in writing to the Office of State Fire Marshal and will provide the following information:

- a) Location of the fire department connections that supply the monitor nozzles, if applicable; and
- b) Location of the fire hydrants or the on-site water supply, if applicable; and
- c) Accessibility pattern on the site to be prepared for fire department operations (fire lanes).

~~6.23.7.6.3~~ 6.25.7.6.3 If the Fire Department Chief Officer does not respond within ten working days as required in ~~6.23.7.6.2~~ 6.25.7.6.2 of this Regulation, the Office of State Fire Marshal will incorporate the necessary fire protection features consistent with generally accepted fire protection practices.

### **Chapter 7, LP-Gas Liquid Transfer.**

#### **7.2 Operational Safety.**

##### **7.2.2 Filling and Evacuating Containers.**

**AMEND §7.2.2.1 by deleting the existing §7.2.2.1 and inserting a new §7.2.2.1 to read as follows:**

**7.2.2.1\*** Containers shall be filled only by the owner or upon the owner's authorization.

**A.7.2.2.1** This modification retains the language of NFPA Pamphlet No. 58, 1989 Standard for the Storage and Handling of LP Gases.

- (a) This requirement is in keeping with 16 Del.C. §7202.

### **Chapter 8, Storage Of Portable Containers Awaiting Use, Resale, Or Exchange.**

#### **8.4.2 Protection Of Containers.**

**AMEND §8.4.2.2 by deleting §8.4.2.2 and inserting a new §8.4.2.2 to read as follows:**



**8.4.2.2\*** Protection against vehicle impact shall be provided by installing traffic/bumper posts, or other protection acceptable to the State Fire Marshal.

A.8.4.2.2 The intent of this requirement is to ensure the protection of the portable cylinders from vehicular damage and to emphasize that the standard curbs are not considered adequate protection.

**MODIFY NFPA 70, ~~2005~~ 2008, The National Electrical Code.**

**Article 210, Branch Circuits**

210.12 Arc-Fault Circuit-Interrupter Protection.

**AMEND §210.12(B), by adding a second third and fourth sentences to read:**

**(B)** Dwelling Units: All 120-volt, single phase, 15- and 20-ampere branch circuits supplying outlets installed in dwelling unit family rooms, dining rooms, living rooms, parlors, libraries, dens, bedrooms, sunrooms, recreation rooms, closets, hallways, or similar rooms or areas shall be protected by a listed arc-fault circuit interrupter, combination type installed to provide protection of the branch circuit. Smoke alarms shall not be placed on branch circuits protected by arc-fault circuit interrupter. All smoke alarms shall be supplied by branch circuits dedicated to smoke alarm equipment. The connection of the smoke alarm branch circuit to the power service shall be mechanically protected by utilizing lock-on devices.

**Article 550, Mobile Homes/Manufactured Homes**

550.25 Arc-Fault Circuit-Interrupter Protection.

**AMEND §550.25(B), by adding a second third and fourth sentences to read:**

**(B)** Bedrooms of Mobile Homes and Manufactured Homes. All 120-volt branch circuits that supply 15- and 20-ampere outlets installed in bedrooms of mobile homes and manufactured homes shall comply with 210.12B. Smoke alarms shall not be placed on branch circuits protected by arc-fault circuit interrupter. All smoke alarms shall be supplied by branch circuits dedicated to smoke alarm equipment. The connection of the smoke alarm branch circuit to the power service shall be mechanically protected by utilizing lock-on devices.

**MODIFY NFPA 99, 2005, Health Care Facilities**

**Chapter 4, Electrical Systems.**

**4.4 Essential Electrical System Requirements – Type 1.**

**4.4.2 Distribution (Type 1 EES)**

**4.4.2.2 Specific Requirements.**

**AMEND §4.4.2.2.2, Life Safety Branch, by adding a new subsection to read as follows:**

**4.4.2.2.2(9) Electric Fire Pumps**

No function other than those listed in items 4.4.2.2.2.2(1) through 4.4.2.2.2.2(9) shall be connected to the life safety branch.

**MODIFY NFPA 101, ~~2006~~ 2009, The Life Safety Code.**

**Chapter 9, Building Service and Fire Protection Equipment.**

**9.2 Heating, Ventilating, and Air Conditioning.**

**AMEND §9.2.1, by adding a new §9.2.1.1, Unvented Fuel-Fired Heating Equipment, to read as follows:**

**9.2.1 Air Conditioning, Heating, Ventilating Ductwork, and Related Equipment.**

**9.2.1.1** Unvented fuel-fired heating equipment shall be prohibited in bathrooms and sleeping areas of all occupancies. In all other areas, gas space heaters installed in compliance with NFPA 54, National Fuel Gas Code, as adopted and modified by these Regulations shall be permitted.

**Chapter 16, New Day Care Occupancies.**

**16.2 Means of Egress Requirements.**

**16.2.2 Means of Egress Components.**

**16.2.2.2 Doors.**

**AMEND §16.2.2.2.2, Panic Hardware or Fire Exit Hardware, by deleting the existing §16.2.2.2.2, and inserting a new §16.2.2.2.2 to read as follows:**

**16.2.2.2.2 Panic Hardware Or Fire Exit Hardware.** Any door in a required means of egress from an area having an occupant load of 13 or more clients shall be permitted to be provided with a latch or lock only if the latch or lock is panic hardware or fire exit hardware.

**16.3 Protection.**

**16.3.4 Detection, Alarm, and Communication Systems.**

**AMEND §16.3.4.4, Emergency Forces Notification, by deleting the existing §16.3.4.4 and inserting a new §16.3.4.4 to read as follows:**

**16.3.4.4 Emergency Forces Notification.** Fire department notification shall be accomplished in accordance with §9.6.4.

*Exception: Day-care centers with not more than 100 clients.*

**Chapter 24, One- And Two-Family Dwellings.**

**24.1.1 Application.**

**AMEND §24.1.1, Application, by deleting the existing §24.1.1.2 and inserting a new §24.1.1.2 to read as follows:**

**24.1.1.2** This Chapter shall not be utilized by the Office of State Fire Marshal during the plan review process, except when individual, specified sections are referenced by other Chapters of the Life Safety Code.

**Chapter 26, Lodging Or Rooming Houses.**

**26.3 Protection.**

**26.3.4 Detection, Alarm, And Communication Systems.**

**AMEND §26.3.4, Detection Alarm, And Communication Systems, by adding a new Subsection to read as follows:**

**26.3.4.4** A corridor smoke detection system in accordance with §9.6 shall be installed in all lodging or rooming houses.

**Chapter 30, New Apartment Buildings.**

**30.3.4 Detection, Alarm, and Communication Systems.**

**AMEND §30.3.4.1, General, by deleting §30.3.4.1, and inserting a new §30.3.4.1 and exception to read as follows:**

**30.3.4.1 General.** All new apartment buildings shall be provided with a fire alarm system in accordance with §9.6, except as modified by 30.3.4.2 through 30.3.4.5.2.

*Exception: Where each dwelling unit is separated from other contiguous dwelling units by fire barriers having a fire resistance rating of not less than one hour, and where each dwelling unit has either its own independent exit or its own independent stairway or ramp discharging at grade.*

**AMEND §30.3.4.4, Detection, by adding a new Subsection to read as follows:**

**30.3.4.4.1** A corridor smoke detection system in accordance with §9.6, shall be installed in all apartment buildings.

**30.3.5 Extinguishment Requirements.**

**AMEND §30.3.5.4, by revising §30.3.5.4 to read as follows:**

In buildings not exceeding 10,000 sq. ft. of aggregate gross floor area and sprinklered in accordance with NFPA 13, Standard for the Installation of Sprinkler Systems, closets less than 12 ft<sup>2</sup> (1.1 m<sup>2</sup>) in area in individual dwelling units shall not be required to be sprinklered. Closets that contain equipment such as washers, dryers, furnaces, or water heaters shall be sprinklered regardless of size.

**Chapter 32, New Residential Board And Care Occupancies.**

**32.2 Small Facilities.**

**AMEND §32.2, Small Facilities, by adding new Subsections to read as follows:**

**32.2.2.7 Emergency Lighting.** Emergency lighting shall be installed in accordance with §7.9.

**32.2.2.8 Marking Of Means Of Egress.** Means of egress shall be marked in accordance with §7.10.

**32.2.2.9 Portable Fire Extinguishers.** Portable fire extinguishers shall be provided near hazardous areas in accordance with §9.7.

**32.2.3.4 Detection, Alarm, and Communication Systems.**

**AMEND §32.2.3.4, Detection, Alarm, and Communication Systems, by adding ~~§32.2.3.4.4~~ §32.2.3.4.5, Emergency Forces Notification, to read as follows:**

~~**32.2.3.4.4**~~ **32.2.3.4.5 Emergency Forces Notification.** Fire department notification shall be accomplished in accordance with §9.6.4.

**32.3 Large Facilities.**

**32.3.3.4 Detection, Alarm, and Communication Systems.**

**AMEND §32.3.3.4.6, Emergency Forces Notification, by deleting the existing §32.3.3.4.6 and inserting a new §32.3.3.4.6 to read as follows:**

**32.3.3.4.6 Fire Department Notification.** Fire department notification shall be accomplished in accordance with §9.6.4.

**MODIFY NFPA 101, 2009, The Life Safety Code.**

**Chapter 43, Building Rehabilitation.**

**DELETE the entire Chapter**

**Annex C, Additions, Deletions, and Changes to Codes and Standards Listed in Annex A**

**Delete entire Annex C . Now included in Annex B**

## 702 Fire Protection in Building Construction

### *(Break in Continuity between Chapters)*

#### Chapter 3 Special Fire Safety Provisions For Physically Handicapped People

##### 1.0 Areas of Refuge.

- 1.1 Definition. An area of refuge for a floor area is that space which is sufficiently protected from the heat and toxic gases produced by a developing fire in the floor area and which provides a direct access to an exit. An area of refuge is intended to facilitate a safe delay in egress from the story containing the floor area, thus constituting a safe space for the handicapped or otherwise disabled persons to await assistance for their safe evacuation.
- 1.2 Every mid rise building and high rise building in ~~excess of fifty feet (50')~~ in height shall incorporate areas of refuge which shall be established and maintained in accordance with this chapter.
- 1.3 Every floor area of a mid rise building and high rise building where barrier free access is provided above the first story shall have not less than one area of refuge ~~provided from that floor area~~.
- 1.4 An area of refuge shall consist of one of the following:
  - 1.4.1 A protected space within the floor area acceptable to the State Fire Marshal that:
    - 1.4.1.1 Is separated from the remainder of the floor area by a fire separation having a fire resistance rating of not less than one hour and a level of smoke control at least equal to that required of an accredited exit;
    - 1.4.1.2 Is served by a fire fighters elevator;
    - 1.4.1.3 Provides an aggregate clear floor space of not less than 30" X 48" per non ambulatory occupant, with a minimum of two such spaces provided; (See ANSI A117.1 1986)
  - 1.4.2 A horizontal exit providing an accessible route from one floor area to another floor area;
  - 1.4.3 A protected space that is either part of an accredited exit or connected by a door to an accredited exit and that:
    - 1.4.3.1 Is separated from the remainder of the floor area by a fire separation having a fire resistance rating and level of smoke control at least equal to that required of the accredited exit;
    - 1.4.3.2 Provides an aggregate floor space of not less than 30" X 48" per non ambulatory occupant, with a minimum of two such spaces provided; (See ANSI A117.1 1986)
- 1.5 Areas of refuge shall be designated as such on all building plans and identified as such within the building. Identification within the building shall incorporate the "International Symbol of Accessibility" and be tactile in texture in accordance with ANSI Standard A117.1-1986. Except for doors, glazed openings shall not be permitted in walls separating areas of refuge from the remainder of the floor area.

#### Chapter 4 Automatic Sprinkler Systems and Standpipe Systems

##### 1.0 Automatic Sprinkler Systems.

- 1.1 Installation Required. Automatic sprinkler systems shall be installed in accordance with the Standard for the Installation of Sprinkler Systems (NFPA 13) in all areas and occupancies as required in the applicable codes and standards as listed in Regulation 701, Annex A of these Regulations as well as the following:
  - 1.1.1 In all buildings exceeding 10,000 square feet of aggregate, gross floor area.

*Exception No. 1: One- and Two-Family dwellings.*

*Exception No. 2: Where no public or private water distribution system is available, a Class "B" Fire Barrier may be utilized to subdivide a one story building into fire areas of less than 10,000 square feet.*

*\*Exception No. 3: Buildings or structures of one story in height where:*

- 1. This Exception does not apply to places of assembly, educational or institutional occupancies.*
  - ~~2.~~ The exterior and interior bearing walls, columns, beams, girders, trusses or arches are constructed of noncombustible material, per the Standard on Types of Building Construction, NFPA 220, ~~Chapter 2~~, as adopted and/or modified by these Regulations; and*
  - ~~23.~~ The construction is noncombustible; and*
  - ~~34.~~ The occupant load is low; and*
  - ~~45.~~ The means of egress components comply with these Regulations and the Life Safety Code, NFPA 101, as adopted and/or modified by these Regulations; and*
  - ~~56.~~ The fuel load is identifiable, permanent, and noncombustible.*
- (a) ~~Exception #3 does not apply to places of assembly, educational, nor institutional occupancies.~~*

**Note:** Exception No. 3: It is the intent of this exception not to require the installation of automatic sprinklers in buildings or structures in excess of 10,000 square feet when used for the storage of an identifiable, noncombustible fuel load where the number of occupants is low. For example a building used for the storage of concrete block, concrete pipe, steel, etc.

*Exception No. 4: Open parking structures, per the Standard for Parking Structures, NFPA 88A, as adopted and/or modified by these Regulations, constructed of noncombustible materials, per the Standard on Types of Building Construction, NFPA 220, Chapter 2, as adopted and/or modified by these Regulations. Under this exception, open parking structures without automatic fire suppression systems shall not be located beneath any other occupancy. Also under this exception, open parking structures without automatic fire suppression systems that are located adjacent to any other occupancy shall be properly separated by a Two Hour Rated Fire Wall in accordance with Regulation 702 Chapter 2, §3.0 of these Regulations.*

- 1.1.2 In all buildings in excess of 40 feet in height or more than four (4) stories in height.
- 1.1.3 In all buildings or areas thereof used for the storage, fabricating, assembling, manufacturing, processing, display or sale of combustible goods, wares, merchandise, products, or materials when more than two (2) stories or 25 feet in height.
- 1.1.4 In all basement areas exceeding 2,500 square feet floor area.
- 1.1.5 In residential occupancies when of:
  - 1.1.5.1 Type V (0,0,0) or Type III (2,0,0) construction and exceeding two (2) stories or 25 feet in height.
  - 1.1.5.2 Type V (1,1,1) and Type III (2,1,1) or Type IV (2,H,H) construction exceeding three (3) stories or 35 feet in height.

**Note:** Above referenced construction classifications are defined under the Standard on Types of Building Construction, NFPA 220.

*Exception No. 1: Single family detached dwellings are exempted from this requirement.*

*Exception No. 2: Attached One- and Two-Family dwellings are exempted from this requirement when dwelling units are separated by two hour rated construction, in accordance with Regulation 702, Chapter 2 of these Regulations.*

- 1.1.6 In all residential apartment buildings storage areas except individual unit closets that are located within individual residential living units.
- 1.1.7 In all buildings used as health care occupancies as defined in the Life Safety Code, NFPA 101, as adopted and/or modified by these Regulations.
- 1.1.8 In all buildings or areas classified as "high hazard" under §4.2.2 of the Life Safety Code, NFPA 101, or "extra hazard" under §1 7 of the Standard for the Installation of Sprinkler Systems, NFPA 13, as adopted and/or modified by these Regulations.
- 1.1.9 All buildings used as dormitories, in whole or in part, to house students at a public or private school or public or private institution of higher education. (16 **Del.C.** Chapter 88) This applies to all such dormitories regardless if new or existing.
- 1.2 Installation and Plan Review.
  - 1.2.1 All automatic fire suppression systems shall be installed in accordance with the applicable codes and standards as listed in Regulation 701, Annex A of these Regulations.

*Exception No. 1: The State Fire Marshal may accept a fire suppression system which does not meet the strict provisions of the applicable codes and standards when in his opinion the proposed system will provide an equivalent level of life safety.*

*Exception No. 2: Whenever an NFPA 13R system is proposed, the Fire Marshal shall evaluate the effect of NFPA 13R exceptions on the fire safety of the building. When in the opinion of the Fire Marshal an adequate level of fire safety cannot be achieved with the application of the exception, he may disapprove the use of the exception.*

- 1.2.2 Plans of all proposed automatic fire suppression systems shall be submitted to the State Fire Marshal for review and approval in accordance with the provisions of Regulation 701, Chapter 4 of these Regulations.

## **2.0 Standpipes.**

- 2.1 Where Required.
  - 2.1.1 Standpipes shall be provided in all areas and buildings as required in the codes and standards listed in Regulation 701, Annex A of these Regulations as well as the following areas or buildings:
  - 2.1.2 In all Class A and Class B places of assembly and institutional occupancies two (2) stories or 25 feet in height or over.
  - 2.1.3 In any building over three (3) stories..
  - 2.1.4 In any building over 35 feet in height.
  - 2.1.5 In any building that has a floor above the first floor over 10,000 square feet gross floor area.
  - 2.1.6 In all buildings where the 1st floor exceeds 60,000 gross square feet, a Class I horizontal standpipe system installed in accordance with the applicable codes and standards listed in Regulation 701, Annex A of these Regulations shall be provided.
- 2.2 Installation.
  - 2.2.1 All standpipe systems shall be installed in accordance with the applicable codes and standards listed in Regulation 701, Annex A of these Regulations.
  - 2.2.2 The standpipe system shall be carried up with each floor and shall be installed and ready for use as each floor progresses. Standpipes shall not be more than one floor below the highest forms of staging.
- 2.3 Floor Level Identification.
  - 2.3.1 A sign shall be provided at each landing, in all interior stairways, designating the floor level.

## **Chapter 5 Mid Rise, High Rise and Large Area Buildings**

## **1.0 ~~General High Rise~~ Mid Rise Building Fire Protection Features Required.**

### **1.1 ~~(Reserved)~~ Fire Command Center**

1.1.1 Every Mid Rise building shall contain a fire command center for fire department operations in a location reviewed by the responsible Fire Chief and approved by the Office of the State Fire Marshal.

1.1.2 The fire command center shall contain the following:

1.1.2.1 Fire detection and alarm system annunciator panels and smoke management panels

1.1.2.2 Status indicator for elevator and annunciator indicating which elevators are operational

1.1.2.3 Status indicators and controls for air handling

1.1.2.4 Emergency power, light and system controls; and status indicators

1.1.2.5 Telephone and internet access for fire department use

1.1.2.6 Emergency and standby power status indicators

1.1.2.7 Generator supervision devices and manual start and transfer features

1.1.2.8 Controls for unlocking fire exit stairway doors simultaneously

1.1.2.9 Controls required for smoke control

1.1.2.10 Important Keys to include

1.1.2.10.1 Elevator machine room

1.1.2.10.2 Elevator hoistway door access key

1.1.2.10.3 Side access door elevator car key

1.1.2.10.4 Electric room keys

1.1.2.10.5 Fire pump room keys

1.1.2.10.6 Mechanical room keys

1.1.2.10.7 Any master key

1.1.2.11 As built drawings. Specific types and format of drawings to be determined by the Office of the State Fire Marshal at time of plan review.

1.1.3 The Office of the State Fire Marshal may reduce the requirements of 5-1.1.2 if the Office of the State Fire Marshal determines that a specific item is not necessary for a specific building.

1.1.4 It is not the intent of this section to require a room solely for the purpose of a fire command center. The fire command center can be constructed as part of a lobby, security office, or other accessible gathering area. However, this area must meet the minimum criteria specified in this section for equipment, location, and personnel use.

### **1.2 Fire Alarm and Detection**

1.2.1 Every Mid Rise building shall be provided with a fire alarm and detection system in accordance with the Life Safety Code, (NFPA 101) and other provisions of the Delaware State Fire Prevention Regulations.

1.2.2 Every Mid Rise building shall be provided with a standard manual fire alarm system with audio and visual devices in accordance with the National Fire Alarm Code (NFPA 72).

### **1.3 Smoke Management**

1.3.1 Every Mid Rise building shall have fire exit stair tower pressurization in accordance with NFPA 92A and include Areas of Refuge if located in an enclosed area other than an exit stair tower.

1.3.2 Except for the lobby at main entrance level, all elevator lobbies shall be separated from the remainder of the floor by a smoke barrier. The elevator lobby is permitted to serve additional elevators.

1.3.3 The elevator lobbies shall be permitted to be open to the remainder of the floor in buildings equipped with a mechanical smoke control system that will restrict smoke and hot gases from entering the elevator shaft on the fire floor.

## 1.4 Standby Power, Light, and Emergency Systems

- 1.4.1 Every Mid Rise building shall be provided with an emergency power supply.
- 1.4.2 Standby power, light and emergency systems shall comply with the provisions of NFPA 110, or NFPA 111 as adopted and modified by these Regulations.
- 1.4.3 The fuel supply located on premises shall be sufficient for not less than two hours of the full demand operation of the system.
- 1.4.4 The standby system shall have a rated capability needed to simultaneously supply all equipment required to be operational during an emergency.
- 1.4.5 All required lighting, smoke management pressurization, electrically powered fire pumps and at least one elevator shall be connected to the standby power source. Elevators shall be provided with a selective load switch to allow transfer of power to each elevator. This will permit each elevator to be returned to the lobby and placed out of service except for fire department service.
- 1.4.6 Emergency Systems. Exit signs, exit illumination, and elevator car lighting shall be considered emergency systems, shall be connected to the standby source and shall operate within ten seconds of failure of the normal power supply.
- 1.4.7 Areas of Refuge. Areas of Refuge shall be provided in accordance with the requirements of 702, Chapter 3.

## **2.0 Requirements For Buildings Over Fifty Feet or Five (5) Stories In Height High Rise Building Fire Protection Features Required.**

### 2.1 Central Control Station:

- 2.1.1 Every high rise building in excess of fifty feet or five stories in height shall contain a central control station for fire department operations which shall be provided in a location approved by the State Fire Marshal. It shall contain the voice alarm and public address panels; the fire department communications panel; fire detection and alarm system annunciator panels; status indicator for elevator and annunciator indicating which elevators are operational; status indicators and controls for air handling systems; controls for unlocking all stairway doors simultaneously; sprinkler valve and waterflow detector display panels; emergency power, light and system controls; and status indicators and a telephone for fire department use with controlled access to the public telephone system.

### 2.2 Alarm and Emergency Communication Systems:

- 2.2.1 Every high rise building in excess of fifty feet or five stories in height shall be equipped with an alarm and communication system which shall be installed in accordance with the applicable codes and standards listed in Part I, Annex A of these Regulations; and approved by the State Fire Marshal.
- 2.2.2 The alarm and communications system shall be so designed and installed that damage to any terminal unit or speaker will not render more than one zone of the system inoperative.
- 2.2.3 The operation of any smoke detector, sprinkler waterflow device or manual fire alarm shall automatically activate a voice alarm system. Activation of the system shall automatically sound an alert signal of the desired areas. The voice alarm system shall provide a predetermined message on a selective basis to the area where the alarm originated and shall provide information and give directions to the occupants. The alarm shall be designed to be heard clearly by all occupants within the building or designated portions thereof as is required for the public address system.
- 2.2.4 The central control station shall contain controls for the voice alarm system so that a selective or general voice alarm may be manually initiated.
- 2.2.5 The system shall be continuously electrically supervised against component failure of the audiopath including amplifiers, speaker wiring, switches, and electrical contacts and shall detect opens, shorts and grounds which might impair the function of the system.

### 2.3 Public Address System:

- 2.3.1 A public address communication system designed to be clearly heard by all occupants of the building shall operate from the central control station. It shall be established on a selective or



general basis to the following terminal areas: elevators, elevator lobbies, corridors, exit stairways, rooms, and tenant spaces exceeding 1,000 square feet in area, dwelling units, and guest rooms or suites.

2.4 Fire Department Communication System.

2.4.1 A two-way fire department communication system in accordance with the National Fire Alarm Code (NFPA 72) shall be provided for fire department use.

2.5 Door Operation.

2.5.1 All stairway doors which are to be locked from the stairway side shall have the capability of being unlocked simultaneously without unlatching upon a signal from the central control station.

2.6 Elevators.

2.6.1 In every high rise building in excess of fifty feet or five stories in height elevator service shall be provided for fire department emergency access to all floors. Said elevator cab shall be of such size to accommodate an ambulance cot 24 inches by 76 inches in its horizontal open position. Except for the main entrance level, all elevators shall open into a lobby (which may serve additional elevators) separated from the remainder of the building by one-hour fire resistance-rated construction. Janitor closets, chutes, guest or tenant rooms, and service rooms shall not open into the elevator lobby. In addition, the provisions of ANSI Standard A 17.1 shall apply.

*Exception: In completely sprinklered buildings, 1-hour rated elevator lobbies are not required in a building equipped with a mechanical smoke control system that will restrict smoke and hot gases from entering the elevator shaft on the fire floor.*

2.7 Mechanical Smoke Control.

2.7.1 In every high rise building in excess of fifty feet or five stories in height a mechanical smoke control system shall be installed in accordance with sound engineering judgment and approved by the State Fire Marshal. Such a system shall be installed to the "state of the art" utilizing any future design criteria published by an agency approved by the State Fire Marshal as a guideline. The designer of such a system shall be responsible, by calculations, and subsequent field testing to prove the system meets design specifications.

2.8 Standby Power, Light, And Emergency Systems.

2.8.1 In every high rise building in excess of fifty feet or five stories in height an emergency power supply shall be installed.

2.8.2 Standby power, light and emergency systems shall comply with the provisions of the Standard for Emergency and Standby Power Systems, NFPA 110, as adopted and/or modified by these Regulations.

2.8.3 Fuel Supply. An on-premises fuel supply sufficient for not less than two hours full demand operation of the system shall be provided.

2.8.4 Generating Capacity. The standby system shall have a capacity and rating that will supply all equipment required to be operational at the same time. The generating capacity need not be sized to operate all the connected electrical equipment simultaneously.

2.8.5 Connected Facilities. All power, lighting, signal, and communication facilities specified in this Regulation as applicable, as well as electrically powered fire pumps required to maintain pressure shall be transferable to the standby source.

2.8.6 Separate Standby Circuits And Fixtures. Separate lighting circuits and fixtures shall be required sufficient to provide light with an intensity of not less than one foot candle (10.76 lux) measured at floor level in all egress corridors, stairways, smokeproof enclosures, elevator cars and lobbies and other areas which are clearly a part of the escape route.

2.8.7 Other Circuits. All circuits supplying lighting for the central control station and mechanical equipment rooms shall be transferable to the standby source.

- ~~2.8.8 Emergency Systems. Exit signs, exit illumination, and elevator car lighting are classified as emergency systems and shall operate within ten seconds of failure of the normal power supply and must also be connected to the standby source.~~

## 2.1 Fire Command Center

- 2.1.1 Every High Rise building shall contain a fire command center for fire department operations in a location reviewed by the responsible Fire Chief and approved by the Office of the State Fire Marshal.

- 2.1.2 The fire command center shall contain the following:

- 2.1.2.1 Voice alarm and public address panels
- 2.1.2.2 Fire department communications panel
- 2.1.2.3 Fire detection and alarm system annunciator panels and smoke management panels
- 2.1.2.4 Status indicator for elevator and annunciator indicating which elevators are operational
- 2.1.2.5 Status indicators and controls for air handling systems
- 2.1.2.6 Controls for unlocking all fire exit stairway doors simultaneously
- 2.1.2.7 Emergency power, light and system controls; and status indicators
- 2.1.2.8 Telephone and internet access for fire department use
- 2.1.2.9 Emergency and standby power status indicators
- 2.1.2.10 Generator supervision devices and manual start and transfer features
- 2.1.2.11 Public address system, where specifically required by other sections of this Code
- 2.1.2.12 Controls required for smoke control
- 2.1.2.13 Important Keys to include
  - 2.1.2.13.1 Elevator machine room
  - 2.1.2.13.2 Elevator hoistway door access key
  - 2.1.2.13.3 Side access door elevator car key
  - 2.1.2.13.4 Electric room keys
  - 2.1.2.13.5 Fire pump room keys
  - 2.1.2.13.6 Mechanical room keys
  - 2.1.2.13.7 Any master key

- 2.1.2.14 As built drawings. Specific types and format of drawings to be determined by the Office of the State Fire Marshal at time of plan review.

- 2.1.3 The fire command center shall be separated from the remainder of the building by one-hour construction and equipped with a heating, ventilating and air conditioning system that will prevent smoke laden air from entering the space.

- 2.1.4 It is not the intent of this section to require a room dedicated for this purpose, but the area provided must be available for immediate use in case of emergency.

- 2.1.5 The room shall be a minimum of 96 square feet with a minimum dimension of 8 feet.

- 2.1.6 The fire command room door shall be clearly identified for use by the fire department.

## 2.2 Emergency Voice/Alarm Communications and Detection System

- 2.2.1 Every High Rise building shall be equipped with a voice alarm, communication and detection system which shall be installed in accordance with the applicable codes and standards listed in Regulation 701, Annex A of these Regulations; and approved by the Office of the State Fire Marshal.

## 2.3 Public Address System

- 2.3.1 A public address communication system shall be part of the Emergency Voice/Alarm Communications System as required in 5-2.2. The system shall be designed to be clearly heard by all occupants of the building and shall operate from the fire command center. It shall be established on a selective or general basis to the following terminal areas:

- 2.3.1.1 Elevators

- 2.3.1.2 Elevator lobbies
- 2.3.1.3 Corridors
- 2.3.1.4 Exit stairways
- 2.3.1.5 Rooms and tenant spaces exceeding 1,000 square feet in area
- 2.3.1.6 Dwelling units and guest rooms or suites.

## 2.4 Fire Department Communication System

- 2.4.1 A two way fire department communication system in accordance with the *National Fire Alarm Code* (NFPA 72) shall be provided for fire department use.
- 2.4.2 An alternative fire department radio enhancement system installed within the building shall be permitted in lieu of a two way fire department communications system, when approved by the Office of the State Fire Marshal.

## 2.5 Door Operation

- 2.5.1 All fire exit stairway doors which are to be locked from the stairway side shall have the capability of being unlocked simultaneously without unlatching upon a signal from the Fire Command Center.

## 2.6 Elevators

- 2.6.1 In every High Rise building at least one elevator service shall be provided for fire department emergency access to all floors.
- 2.6.2 Except for the main entrance level, all elevators shall open into a lobby (which may serve additional elevators) separated from the remainder of the building by a smoke barrier. Janitor closets, chutes, guest or tenant rooms, and service rooms shall not open into the elevator lobby. In addition, the provisions of ANSI Standard A 17.1 shall apply.
- 2.6.3 The elevator lobbies shall be permitted to be open to the remainder of the floor in buildings equipped with a mechanical smoke control system that will restrict smoke and hot gases from entering the elevator shaft on the fire floor.

## 2.7 Smoke Management Systems

- 2.7.1 In every High Rise building a Smoke Management system shall be installed in accordance with NFPA 92A, 92B and approved by the Office of the State Fire Marshal. Such system shall provide the following:
  - 2.7.1.1 Egress Stair Tower Pressurization
  - 2.7.1.2 Area of Refuge Pressurization
  - 2.7.1.3 Horizontal Exit Passageway Pressurization
  - 2.7.1.4 Fire Floor Smoke Exhaust
  - 2.7.1.5 Floor Above and Below Fire Floor Pressurization
  - 2.7.1.6 Other criteria as deemed necessary by the Office of the State Fire Marshal for Unusual Spaces.
- 2.7.2 Smoke management system operation/actuation shall be approved by the Office of the State Fire Marshal.

Note: As per NFPA 92A and 92B, the smoke management system shall be provided with a graphic annunciator and manual override panel to be located in the Fire Command Center. The design and operation of the graphic annunciator shall be proposed by the designer and approved by the Office of the State Fire Marshal.

## 2.8 Standby Power, Light, And Emergency Systems

- 2.8.1 In every High Rise building an emergency power supply shall be installed.
- 2.8.2 Standby power, light and emergency systems shall comply with the provisions of the Standard for Emergency and Standby Power Systems, NFPA 110, as adopted and/or modified by these Regulations.
- 2.8.3 Fuel Supply. An on premises fuel supply sufficient for not less than two hours full demand operation of the system shall be provided.

2.8.4 Generating Capacity. The standby system shall have a capacity and rating that will supply all equipment required to be operational at the same time. The generating capacity need not be sized to operate all the connected electrical equipment simultaneously.

2.8.5 All power, lighting, signal, and communication systems required by this Regulation shall automatically transfer to a standby source. The standby power system shall be connected to all systems listed in the NFPA 101 Life Safety Code.

## 2.9 Emergency Systems

2.9.1 Exit signs, exit illumination, and elevator car lighting are classified as emergency systems and shall operate within ten seconds of failure of the normal power supply and must also be connected to the standby source.

2.9.2 All required lighting, smoke management pressurization, electrically powered fire pumps and at least one elevator shall be connected to the standby power source. Elevators shall be provided with a selective load switch to allow transfer of power to each elevator. This will permit each elevator to be returned to the lobby and placed out of service except for fire department service.

2.10 Areas of Refuge. Areas of Refuge shall be provided in accordance with the requirements of Regulation 701, Chapter 3.

## **3.0 Large Area Buildings.**

### **3.1 Purpose, Scope, and Application.**

**3.1.1 Purpose.** ~~To establish the minimum requirements for life safety and property protection requirements of Large Area Buildings.~~

**3.1.2 Scope.** ~~This Regulation addresses the types of life safety systems and property protection systems that are to be installed in Large Area Buildings.~~

**3.1.3 Application.** ~~The application of this Regulation pertains to any building exceeding sixty thousand (60,000) square feet gross floor area on any one floor. This Regulation does not apply to Strip Shopping/Office Center with no individual tenant exceeding 60,000 sq. ft.~~

**Note:** ~~If any one individual tenant in a Strip Shopping/Office Center exceeds 60,000 sq. ft., the intent of this Regulation is that these requirements shall apply only to that tenant.~~

### **3.2 Horizontal Standpipes.**

**3.2.1** ~~Large area buildings shall be equipped with horizontal standpipe systems installed in accordance with the applicable codes and standards listed in Part I, Annex A of these Regulations.~~

*Exception: If the occupancy is so arranged that the fire department has access on the perimeter of the building, so that a maximum of 150 feet of fire hose can be utilized in assisting to control a fire, to any location within the building, the State Fire Marshal may waive this requirement for a single story building.*

### **3.3 Emergency Voice/Alarm Communications.**

**3.3.1** ~~Large area buildings shall be equipped with an emergency voice/alarm communications system installed in accordance with the National Fire Alarm Code, NFPA 72, as adopted and or modified by these Regulations.~~

### **3.4 Fire Command Station.**

**3.4.1** ~~Large area buildings containing Institutional Occupancies shall be equipped with a fire command station for fire department operations which shall be provided in a location approved by the State Fire Marshal. It shall contain the emergency voice/alarm communications control equipment; the fire department communications panel; fire detection and alarm system annunciator panels; status indicator for elevator and annunciator indicating which elevators are operational; status indicators and controls for air handling systems; controls for unlocking all stairway doors simultaneously; sprinkler valve and waterflow detector display panels; emergency power, light and system~~

- controls; and status indicators and a telephone for fire department use with controlled access to the public telephone system.
- 3.4.2 ~~The State Fire Marshal may require a Fire Command Station for other Large Area Buildings exceeding one hundred thousand (100,000) square feet gross floor area on any one floor.~~
- 3.5 ~~Paging System.~~
- 3.5.1 ~~A paging system utilizing the voice/alarm signaling service of the emergency voice/alarm communications system to be clearly heard by all occupants of the building shall operate from the fire command station. The paging system shall provide for voice direction on a selective and all-call basis, as determined by the State Fire Marshal to include the following areas: elevator cars, elevator lobbies, corridors, exit stairways, rooms, tenant spaces, dwelling units, and guest rooms or suites.~~
- 3.6 ~~Mechanical Smoke Control.~~
- 3.6.1 ~~Large area buildings shall be equipped with a mechanical or manual smoke control system approved by the State Fire Marshal and shall be capable of being operated by the fire department.~~
- 3.6.2 ~~This smoke control system shall, at a minimum, consist of smoke vents installed to the following criteria:~~
- 3.6.2.1 ~~One, 100 sq. ft. vent per 25,000 sq. ft. of floor area.~~
- 3.6.2.2 ~~Each vent shall be centrally located within the 25,000 sq. ft. protected area.~~
- 3.7 ~~Standby Power, Light, and Emergency Systems.~~

**Note:** ~~Stand-By Power, Light, and Emergency Systems. In applying this regulation, consideration to the type of occupancy is the "yard stick." A Mercantile of a single story would not benefit from such equipment, but a place of assembly or an educational occupancy would most certainly benefit, and therefore, it should be required.~~

- 3.7.1 ~~Large area buildings shall be equipped with standby power, light, and emergency systems which shall comply with the provisions of the Standard for Emergency and Standby Power Systems, NFPA 110, as adopted and/or modified by these Regulation.~~
- 3.1 Application. The application of this Regulation pertains to any building exceeding one-hundred thousand (100,000) square feet gross floor area on any one floor. This Regulation does not apply to Strip Shopping/Office Center with no individual tenant exceeding 100,000 sq. ft.
- 3.1.1 If any one individual tenant in a Strip Shopping/Office Center exceeds 100,000 sq. ft. per floor, these requirements shall apply only to those tenants.
- 3.2 Horizontal Standpipes.
- 3.2.1 Horizontal Standpipes shall be required in accordance with Regulation 702, Chapter 4 of these Regulations
- 3.3 Emergency Voice/Alarm Communications and Detection System.
- 3.3.1 Large area buildings shall be equipped with a voice alarm, communication and detection system which shall be installed in accordance with the applicable codes and standards listed in Regulation 701, Annex A of these Regulations; and approved by the Office of the State Fire Marshal
- 3.4 Fire Command Station.
- 3.4.1 Large area buildings containing Health Care Occupancies, Ambulatory Health Care and Detention and Correction Occupancies shall contain a fire command center for fire department operations in a location reviewed by the responsible Fire Chief and approved by the Office of the State Fire Marshal. The Office of the State Fire Marshal may require a Fire Command Center for other Large Area Buildings.
- 3.4.2 The fire command center shall contain the following:
- 3.4.2.1 Voice alarm and public address panels
- 3.4.2.2 Fire department communications panel
- 3.4.2.3 Fire detection and alarm system annunciator panels and smoke management panels

- 3.4.2.4 Status indicator for elevator and annunciator indicating which elevators are operational
- 3.4.2.5 Status indicators and controls for air handling systems
- 3.4.2.6 Controls for unlocking all fire exit stairway doors simultaneously
- 3.4.2.7 Emergency power, light and system controls; and status indicators
- 3.4.2.8 Telephone and internet access for fire department use
- 3.4.2.9 Emergency and standby power status indicators
- 3.4.2.10 Generator supervision devices and manual start and transfer features
- 3.4.2.11 Public address system, where specifically required by other sections of this Code
- 3.4.2.12 Controls required for smoke control
- 3.4.2.13 Important Keys to include
  - 3.4.2.13.1 Elevator machine room
  - 3.4.2.13.2 Elevator hoistway door access key
  - 3.4.2.13.3 Side access door elevator car key
  - 3.4.2.13.4 Electric room keys
  - 3.4.2.13.5 Fire pump room keys
  - 3.4.2.13.6 Mechanical room keys
  - 3.4.2.13.7 Any master key
- 3.4.2.14 As built drawings. Specific types and format of drawings to be determined by the Office of the State Fire Marshal at time of plan review.
- 3.4.3 The fire command center shall be separated from the remainder of the building by one-hour construction and equipped with a heating, ventilating and air conditioning system that will prevent smoke laden air from entering the space.
- 3.4.4 It is not the intent of this section to require a room dedicated for this purpose, but the area provided must be available for immediate use in case of emergency.
- 3.4.5 The room shall be a minimum of 96 square feet with a minimum dimension of 8 feet.
- 3.4.6 The fire command room door shall be clearly identified for use by the fire department.
- 3.5 Smoke Management Systems
  - 3.5.1 Large area buildings shall be equipped with a smoke management system approved by the Office of the State Fire Marshal, designed in accordance with 5-3.5.2 or 5-3.5.3, and shall be capable of being operated by the fire department.
  - 3.5.2 This smoke control system shall, at a minimum, consist of manually operated smoke vents installed in accordance with NFPA 204 with the following criteria:
    - 3.5.2.1 One, 100 sq. ft. vent per 25,000 sq. ft. of floor area.
    - 3.5.2.2 Each vent shall be centrally located within the 25,000 sq. ft. protected area.
  - 3.5.3 Large Area buildings using mechanical means of smoke management shall be installed in accordance with NFPA 92A, 92B and approved by the Office of the State Fire Marshal. Such system shall provide the following:
    - 3.5.3.1 Egress Stair Tower Pressurization if stairs are more than three (3) communicating floor levels
    - 3.5.3.2 Area of Refuge Pressurization
    - 3.5.3.3 Horizontal Exit Passageway Pressurization
    - 3.5.3.4 Fire Floor or Fire Area Smoke Exhaust
    - 3.5.3.5 Other Criteria as deemed necessary by the Office of the State Fire Marshal for Unusual Spaces
  - 3.5.4 Smoke management system operation/actuation shall be approved by the Office of the State Fire Marshal.

Note: As per NFPA 92A and 92B, the smoke management system shall be provided with a graphic annunciator and manual override panel to be located in the fire command center. The design and operation of the graphic annunciator shall be approved by the Office of the State Fire Marshal.

### **3.6 Standby Power, Light, and Emergency Systems.**

#### **3.6.1 Large area buildings shall be equipped with standby power, light, smoke management system and emergency systems which shall comply with the provisions of the Standard for Emergency and Standby Power Systems, NFPA 110, as adopted and/or modified by these Regulations.**

*Exception: If the occupancy is such that "standard" battery operated emergency systems (emergency lighting, exit signs, fire alarm signaling system backup power, etc.), are deemed to be adequate by the State Fire Marshal.*

## **703 Installation, Operation, Maintenance, Testing and Sales of Signalling Systems, Fire Protection Systems and Fire Extinguishers**

### **Chapter 1 Operation, Maintenance, and Testing Of Fire Protection Systems**

#### **4.0 Periodic Inspections, Testing, And Maintenance Service.**

##### **4.1 General.**

- 4.1.1 Periodic inspections, testing, and maintenance of fire alarm signaling, fire suppression, and any other fire protection systems, devices, and equipment shall be conducted in accordance with the National Fire Protection Association's National Fire Codes and Standards, as adopted and/or modified by these Regulations. The required inspection, testing, and maintenance service shall be conducted by a licensed company or by an owners representative at the intervals established by the National Fire Protection Association's National Fire Codes and Standards, as adopted and/or modified by these Regulations and as referenced in Appendix F of these Regulations.
- 4.1.2 Before testing any suppression system, standpipe, or fire alarm system which is connected to a central station or connected directly to a fire dispatch center, or the fire or police department, notification shall be given to the central station, fire dispatch center, fire department or police department before initiation of the tests.
- 4.1.3 It shall be the responsibility of the owner of the protected property to see that the required periodic inspections, testing, and maintenance of the system are conducted, as well as having the system serviced whenever an unexplained activation of the system occurs or if the system is found to be inoperative.
- 4.1.4 Annual Inspection, Testing, and Maintenance Service. Annual inspection, testing, and maintenance is required for all fire alarm signaling, fire suppression, and any other fire protection systems, devices, and equipment installed within the State of Delaware. This annual inspection, testing, and maintenance service shall be completed by a company licensed in accordance with Regulation 703, Chapters 2, 4, 5, 6, and/or 7 of this Regulation. Upon completion of this annual inspection, testing, and maintenance service, the licensed company shall submit an Annual Certificate of Inspection along with the appropriate fees as listed in Appendix E of these Regulations, in accordance with §4.1.5 of this Chapter.
- 4.1.5 Certificate of Inspection. A separate Certificate of Inspection is required to be forwarded to the State Fire Marshal on an annual basis and on the prescribed form for all such fire alarm, fire suppression, and other fire protection systems that are required to be inspected, tested, and/or maintained by these Regulations. The Annual Certificate of Inspection must be submitted to the Office of State Fire Marshal within 30 working days of the completion of the required annual testing, inspection, or maintenance by a company licensed in accordance with Regulation 703, Chapters 4, 5, 6, and/or 7 of these Regulations. A Certificate of Inspection shall also be completed after each periodic inspection, test, or maintenance, and shall be maintained on site as part of the permanent systems record.

4.1.6 ~~The failure of the licensed company to comply with the provisions of this Section, shall constitute a violation of the Delaware State Fire Prevention Regulations~~ Fire Protection Major Deficiencies.

4.1.6.1 Where a fire protection system major deficiency is found, it shall be reported to the Office of the State Fire Marshal within one business day on a form prescribed by the Office of the State Fire Marshal.

4.1.6.2 When a fire protection system major deficiency is repaired, it shall be reported to the Office of the State Fire Marshal within one business day on a form prescribed by the Office of the State Fire Marshal.

4.1.7 The failure of the licensed company to comply with the provisions of this Section, shall constitute a violation of the Delaware State Fire Prevention Regulations.

#### 4.2 Standpipes.

4.2.1 All standpipe fire lines in all buildings and structures shall be tested at least every five years. In buildings and structures having floors used for human occupancy located more than 50 feet above the lowest level of fire department vehicle access, tests shall be made at intervals of not more than two years. Wet and dry pipe systems shall meet the flow demands required at the time of installation or as required by §5.1.2 of this chapter. At the time of the test all control valves, including those inside hose cabinets, shall be operated and then reset in their proper position to insure the workability of these valves. Wet and dry systems unable to meet the flow requirements at the time of installation or as required by §5.1.3 of this chapter shall be required to install automatic fire pumps or tanks if deemed necessary by the State Fire Marshal for the occupancy of the building.

#### 4.3 Sprinkler System Tests.

4.3.1 All sprinkler systems shall have the proper inspections, tests, and maintenance performed at the prescribed intervals in accordance with the National Fire Protection Association's National Fire Codes and Standards as adopted and/or modified by these Regulations and as referenced in Appendix F of these Regulations.

#### 4.4 Fire Pumps.

4.4.1 All fire pumps shall have the proper inspections, tests, and maintenance performed at the prescribed intervals in accordance with the National Fire Protection Association's National Fire Codes and Standards as adopted and/or modified by these Regulations and as referenced in Appendix F of these Regulations. Where the water supply is from a public service main, pump operation and testing shall not draw the residual suction pressure at the pump below 10 PSI.

*Exception: This requirement may be waived where the water supply is consistently above the sprinkler system demand.*

#### 4.5 Fire Suppression Systems for Cooking Operations.

4.5.1 Every fire suppression system for cooking operations shall be inspected at least every six months and whenever the system activated or found inoperative. Inspections shall be made only by companies or individuals licensed under the provisions of these Regulations. All actuation components, including remote manual pull stations, mechanical or electrical devices, detectors, actuators, etc., shall be checked for proper operation during inspection. All fusible links and fusible link sprinkler heads shall be replaced annually. Manual stations shall be sealed and safety pinned or latched. An inspection tag shall be located at the manual pull station indicating the date of the last inspection and the name and license number of the company who performed the work as well as the signature of the responsible party.

4.5.2 A Certificate of Inspection shall be forwarded to the Office of State Fire Marshal on an annual basis, or whenever any system is placed back into service after being discharged. This Certificate of Inspection must be submitted by a company licensed in accordance with Regulation 703, Chapters 4, 5, 6, and/or 7 of this Regulation. A Certificate of Inspection shall also be completed after each periodic inspection, test, or maintenance and shall be maintained on site as part of the



permanent systems record. Certificates of Inspection shall be submitted in such form as the State Fire Marshal may prescribe.

#### 4.6 Fire Alarm Systems.

- 4.6.1 All fire alarm signaling systems shall have the proper inspection, testing and maintenance service performed at the prescribed intervals in accordance with the National Fire Protection Association's National Fire Codes and Standards as adopted and/or modified by these Regulations and as referenced in Appendix F of these Regulations.
- 4.6.2 In Non-Transient Tenant Occupied Households, such as apartments, rental condominiums, and one- and two-family rental property, the landlord shall provide the tenant with information describing the operation, method, and frequency of testing and proper maintenance of household fire warning equipment. The tenant shall test the household fire warning equipment in accordance with the National Fire Code, NFPA 72, as adopted and/or modified by these Regulations.
- 4.6.3 In Transient Tenant Occupied Households such as apartments, hotels, motels, dormitories, residential board and care and boarding houses. The landlord shall be required to have a licensed fire alarm signaling system company test the household fire warning equipment in accordance with the National Fire Code, NFPA 72, as adopted and/or modified by these Regulations. A written record of the tests and inspections shall be completed in accordance with Regulation 703, §4.8 of these Regulations.

#### 4.7 Fire Safety Devices.

- 4.7.1 Special fire safety devices including automatic smoke removal and control equipment, emergency generators and any other special fire safety equipment shall be tested annually by the owner or an authorized representative and the results of such tests shall be logged in a journal kept available for inspection in accordance with procedures approved by the State Fire Marshal.

#### 4.8 Test Records; Tagging.

- 4.8.1 Written Record. A log or other complete written record of all tests and inspections required under this Chapter shall be maintained on the premises by the owner or occupant in charge of said premises. The written record shall document the inspection or testing of each individual system component required to be tested or inspected. The written record must reference each component by use of an identification number.
- 4.8.2 Identification Number. All system components required to be tested or inspected under this Chapter shall have a unique identification number assigned. The assigned number shall be displayed on the device in such a way so that each component shall be easily and readily identified in the installed state. If it is impossible to identify the device by the display of a tag, the State Fire Marshal may approve an alternative method.
- 4.8.3 Certificate of Inspection. A separate Certificate of Inspection is required to be forwarded to the Office of State Fire Marshal, on an annual basis, and on the prescribed form, for all such fire alarm, fire suppression, or other fire protection systems that are required to be serviced, tested, or maintained by these Regulations. This Certificate of Inspection must be submitted by a company licensed in accordance with Regulation 703, Chapters 4, 5, 6, and/or 7 of this Regulation. A Certificate of Inspection shall also be completed after each periodic service, test, or inspection and shall be maintained on site as part of the permanent systems record.
- 4.8.4 Inspection and Maintenance Tag. An inspection and maintenance tag shall be affixed to the face of the system's main control after each completed inspection or test. The inspection and maintenance tag shall indicate the following:
  - 4.8.4.1 Location or identification of system;
  - 4.8.4.2 Name, address, telephone number, and license number of the fire alarm signaling/suppression systems company;
  - 4.8.4.3 Date of inspection or maintenance visit;
  - 4.8.4.4 Name and certificate number of employee in responsible charge of inspection or maintenance visit;

4.8.4.5 Type of system inspected or maintained. (Types of systems shall be per the Certificate of Installation.)

4.9 Dry Hydrants.

- 4.9.1 Where dry hydrants are installed in any subdivision, development, complex, or community that has a common maintenance agreement to which the landowners either subscribe to or pay a fee, for any maintenance, repair or other improvements, it shall be the responsibility of the landowners to maintain and test all such dry hydrants as may be installed according to the specifications set out in this section.
- 4.9.2 The provisions of §4.9.1 of this chapter shall apply to all dry hydrants that may be installed on any private property, be it residential, commercial, or industrial, and the owner of such properties or occupancies shall be responsible for the periodic inspections, maintenance, and testing of the dry hydrants.
- 4.9.3 All dry hydrants will be reverse flushed on an annual basis.
- 4.9.4 All dry hydrants shall be inspected and operated on an annual basis with particular attention paid to the general condition of the dry hydrant to include:
  - 4.9.4.1 Caps present and free turning;
  - 4.9.4.2 Threads in good condition;
  - 4.9.4.3 Hydrant operates properly;
  - 4.9.4.4 Hydrant drains properly;
  - 4.9.4.5 All piping is in good condition with no visible breaks or cracks;
  - 4.9.4.6 Fire department connection facing in the right direction;
  - 4.9.4.7 There are no physical obstructions; and
  - 4.9.4.8 Fire department access is not blocked, impeded, nor hindered.
- 4.9.5 A copy of the annual inspection and maintenance report shall be submitted to the local Fire Chief.
- 4.9.6 The owner will have all necessary repairs made or deficiencies corrected within 30 days of any periodic inspection, maintenance, or testing that indicates such action is needed.
- 4.9.7 Records of inspections and corrective actions for noted deficiencies shall be maintained by the owner at their main office for a period of three (3) years.

## **Chapter 2 Sales and Servicing of Portable Fire Extinguishers (Excluding Automatic Sprinkler Systems)**

### **3.0 Fire Extinguisher Servicing Licensure Procedure.**

3.1 Testing of Service Persons.

- 3.1.1 Anyone requesting a license to service, repair, or maintain portable fire extinguishers as required under this chapter, must appear in person at the Office of the State Fire Marshal with the payment of a licensure fee as prescribed in Appendix D. That individual will be permitted to take a written test for licensure to service, maintain, or repair portable fire extinguishers.
- 3.1.2 A passing grade of 70% must be attained in order to qualify the applicant for licensure.
- 3.1.3 If an applicant fails to make the passing grade of 70%, he may reapply for re-testing after a waiting period of not less than three months.
- 3.1.4 Successful completion of the written examination for portable fire extinguishers will result in licensure by the State Fire Marshal's Office.

3.2 Length of Licensure; Renewal.

- 3.2.1 The license year period shall expire on a date as scheduled by the State Fire Marshal, pursuant to the provisions of 16 **Del.C.** §6607, (g)(5)(d). The State Fire Marshal shall charge such fees in the application of these Regulations as defined in Appendix E of these Regulations.
- 3.2.2 All licensed service persons shall be required to submit to a written re-certification test not more than every three (3) years from the original date of licensure.

## Chapter 3 Standard for Fire Hydrant Maintenance, Inspection, Testing, and Marking

### 4.0 Color Coding.

- 4.1 Hydrant barrels shall be provided with reflective material, such as paint, durable for highway/roadway markings or a reflective tape of a minimum of 2" in width around the barrel under the top flange.
- 4.2 Hydrant bonnets shall be color coded based on the following criteria:
  - 4.2.1 Class AA ~~over~~ 1500 GPM painted light blue
  - 4.2.2 Class A 1,000 - ~~4500~~1499 GPM painted green
  - 4.2.3 Class B 500 - 999 GPM painted ~~yellow~~ orange
  - 4.2.4 Class C 250 499 GPM painted red
  - 4.2.5 Class D under 250 GPM painted black
- 4.3 Bonnet color coding shall be maintained current based on the most recent flow test data for that area.

A-4.2 Existing hydrants that were painted a different color in accordance with a previous edition of the Regulation in effect at the time, shall be permitted to remain that color until such time that it needs to be repainted. At that time, it shall be painted a color in compliance with the current Regulation.

## Chapter 4 Licensing Regulations for Fire Alarm Signaling Systems

### 3.0 Licenses.

- 3.1 License Required.
  - 3.1.1 Every Fire Suppression Systems Company operating in the State of Delaware shall obtain a license issued by the Office of State Fire Marshal.
  - 3.1.2 The application for such license shall be in accordance with the provisions of §3.2 of this chapter of this Regulation.
  - 3.1.3 All licenses issued under this section shall be valid for one year and renewed annually by the license holder on a form provided by the Office of State Fire Marshal.
  - 3.1.4 The license year period shall expire on a date as scheduled by the State Fire Marshal, pursuant to the provisions of 16 **Del.C.** §6607, (g)(5)(d).
- 3.2 Licensure Requirements.
  - 3.2.1 Application and Fees. The Fire Suppression Systems Company shall make application to the Office of State Fire Marshal, meet the requirements of this Regulation, and pay the required fees.
  - 3.2.2 Address. A specific current business address shall be maintained by the licensee. The licensee shall notify the Office of State Fire Marshal in writing within fourteen (14) days of any change of address.
  - 3.2.3 Certificate Holder. Each Fire Suppression Systems Company, shall have a CERTIFICATE HOLDER, who shall be in a position of RESPONSIBLE CHARGE, with the licensed company. This person, or persons, shall pass an examination on and become certified in the categories pertaining to the activities of the Fire Suppression Systems Company.
  - 3.2.4 Delaware Business License. The Fire Suppression Systems Company shall hold a current Delaware Business License as defined in 30 **Del.C.** §2301, and must be qualified to do business in the State of Delaware and must be registered with the Secretary of State. A copy of the current Delaware Business License shall be submitted at the time of application for a license and upon each subsequent renewal request.
- 3.3 Licensure Limitations
  - 3.3.1 The Fire Suppression Systems Company shall be limited to performing functions related only to those types of activities for which the Certificate Holder has been certified.

- 3.3.2 If the Certificate Holder and the Fire Suppression Systems Company terminate their relationship, the Certificate Holder and the Company, each must notify the Office of State Fire Marshal, in writing, within five (5) business days.

3.4 Insurance Required.

- 3.4.1 The State Fire Marshal shall not issue a license under these Regulations unless:

3.4.1.1 The Fire Suppression Systems Company files with the Office of State Fire Marshal proof of liability insurance coverage of not less than \$250,000 per person minimum and \$500,000 per accident minimum;

3.4.1.2 The Fire Suppression Systems Company must file proof of State of Delaware Worker's Compensation Insurance in accordance with 19 Del.C. Ch. 23 - Workers' Compensation. Any company, business, or person(s) claiming an exemption from Workers' Compensation laws of this State shall provide proof in the form of a written correspondence to the Office of the State Fire Marshal that the company, business, or person(s) is not required by the laws of this State to maintain Workers' Compensation coverage.

3.4.2 Any insurance required by this Section must be in the form of a Certificate of Insurance executed by an insurer authorized to do business in this State.

3.4.3 Insurance Certificates filed with the Office of State Fire Marshal under this Section shall remain current and in force until the insurer has terminated future liability by a 10 day notice to the Office of State Fire Marshal.

3.4.4 Failure to maintain the required insurance constitutes grounds for denial, suspension or revocation of a license by the State Fire Marshal.

## 4.0 Certification.

4.1 Certificate Holder.

4.1.1 A Certificate Holder is the individual who has met the requirements of this Regulation and has been granted a Certificate for one or more of the Certificate Classifications defined in this Chapter. This person shall be the individual of RESPONSIBLE CHARGE, as defined in these Regulations.

4.1.2 The Certificate holder is the individual in RESPONSIBLE CHARGE of ensuring that the functions for which they have been certified have been performed in accordance with the standards and specifications of the Delaware State Fire Prevention Regulations.

4.1.3 All Certificates issued under this Section shall be valid for one year and renewed annually on a form provided by the Office of State Fire Marshal.

4.1.4 The Certificate year period shall expire on a date as scheduled by the State Fire Marshal, pursuant to the provisions of 16 Del.C. §6607, (g)(5)(d).

4.1.5 The Office of State Fire Marshal has the authority to require all Certificate Holders to submit to a re-certification or continuing education process at a frequency, set as a minimum, of five (5) years. The re-certification or continuing education cannot occur more frequently than every five (5) years.

4.2 Classification of Certificates.

4.2.1 Class I: All types of fire alarm signaling systems under Classes II, III, IV, V, and VI.

4.2.2 Class II: Limited to fire alarm signaling and related systems in the following categories:

II(a) Proprietary Systems;

II(b) Emergency Voice/Alarm Communications;

II(c) Emergency and Standby Power Systems (typical of NFPA 110 systems).

4.2.3 Class III: Limited to fire alarm signaling and related systems in the following categories:

III Central Station Facilities and Systems.

4.2.4 Class IV: Limited to fire alarm signaling systems in the following categories:

IV(a) Local Alarm;

IV(b) Auxiliary Alarm;

IV(c) Remote Alarm;

4.2.5 Class V: Limited to household fire warning equipment systems in one and two family dwellings.

~~V(a) Household Fire Warning Systems.~~

~~V(b) Single Station Units.~~

4.2.6 Class VI: Limited to performing the Inspection, Testing and Maintenance Service of fire alarm signaling systems as specified in the National Fire Protection Association's National Fire Codes and Standards, as adopted and/or modified by these Regulations, for all fire alarm signaling systems covered under Certificate Classifications I, II, III, IV, and V.

4.2.7 Class VII: Limited to installation, only, of all types of fire alarm signaling systems. A prerequisite to being certified in this Class is that the fire alarm signaling system to be installed, would have had technical documents submitted by a company licensed under the provisions of these Regulations and by a Certificate Holder so qualified under these Regulations, to the Office of State Fire Marshal for review and approval.

4.2.7.1 A company applying for a license or an individual seeking to be certified in this Class, acknowledges in so applying, that they may install only those fire alarm signaling systems that have had technical documents prepared by a Class I through Class V licensed Fire Alarm Signaling Systems Company and Certificate Holder pursuant to these Regulations.

4.2.7.2 The testing of the fire alarm signaling system during installation is the responsibility of the Class I through V Licensed Fire Alarm Signaling Systems Company's Certificate Holder. The Certificate Holder may delegate that testing which is appropriate during installation to the Class VII license holder pursuant to the Responsible Charge provisions for the Certificate Holder. Delegation of testing to a Class VII License holder shall not include acceptance testing.

4.2.7.3 The acceptance testing for the fire alarm signaling system is the responsibility of the Class I through V licensed Fire Alarm Signaling Systems Company and Certificate Holder, who has submitted the technical documents to the Office of State Fire Marshal.

4.2.7.4 Notwithstanding any other requirements found in these Regulations, a company may be licensed or an individual may be certified for this Class, Class VII, if the company or the individual is licensed by the State of Delaware as a MASTER ELECTRICIAN. Any person or company who is not installing fire alarm signaling systems in accordance with (a) above, must be licensed and certified in accordance with §3.0 and §4.0 of this chapter of these Regulations.

4.2.8 Class VIII: Limited to Inspection, Testing and Maintenance Service of holly owned or proprietary fire alarm signaling systems. This class of certificate is for those In-House Licensees as defined elsewhere in these Regulations.

#### 4.3 Qualifications.

4.3.1 To qualify as a Certificate Holder an individual shall:

4.3.1.1 Be a resident of the United States of America or be entitled to work in the United States of America and be at least 18 years of age;

4.3.1.2 Apply to the Office of State Fire Marshal, meet the requirements as set forth in these Regulations, and pay the required fees as listed in Appendix E;

4.3.1.3 Be a full time employee, as defined herein, of the Fire Alarm Signaling Systems Company, and be in Responsible Charge of the preparation of technical documents, installation, inspection, testing, or maintenance of fire alarm signaling systems;

4.3.1.4 Have passed an examination prescribed by the Delaware State Fire Prevention Commission or an equivalent examination approved by the Delaware State Fire Prevention Commission. Any examination that has been passed as prescribed by the Delaware State Fire Prevention Commission, must have been completed within five (5) years of the application date or, when an individual submits such examination results for the Commission's review and acceptance.

4.3.1.5 For the purposes of this Regulation, a Registered Delaware Professional Engineer shall be recognized as a Certificate Holder without further qualification.

#### 4.4 Limitations.

- 4.4.1 A Certificate Holder may only be in a position of Responsible Charge for the functions for which they have been certified.
- 4.4.2 The authority of the Certificate Holder on behalf of the licensed Fire Alarm Signaling Systems Company shall cease immediately upon separation from the Fire Alarm Signaling Systems Company.
- 4.4.3 The Fire Alarm Signaling Systems Company and the Certificate Holder each must notify the Office of State Fire Marshal, in writing, within five business days after the separation.
- 4.4.4 Upon separation of the Certificate Holder from the licensed company, the Fire Alarm Signaling Systems Company may complete existing work in progress, which has been submitted, reviewed and approved by the Office of State Fire Marshal, but may not commence any new work or conduct any inspection work until a Certificate Holder is hired.
- 4.4.5 Upon the expiration of the current license or within six months (whichever occurs last) if the Fire Alarm Signaling Systems Company has not obtained a Certificate Holder, the State Fire Marshal shall terminate the Fire Alarm Signaling Systems Company's license.

### **Chapter 5 Licensing Regulations for Fire Suppression Systems**

#### **3.0 Licenses.**

##### 3.1 License Required.

- 3.1.1 Every Fire Suppression Systems Company operating in the State of Delaware shall obtain a license issued by the Office of State Fire Marshal.
- 3.1.2 The application for such license shall be in accordance with the provisions of §3.2 of this chapter of this Regulation.
- 3.1.3 All licenses issued under this section shall be valid for one year and renewed annually by the license holder on a form provided by the Office of State Fire Marshal.
- 3.1.4 The license year period shall expire on a date as scheduled by the State Fire Marshal, pursuant to the provisions of 16 **Del.C.** §6607, (g)(5)(d).

##### 3.2 Licensure Requirements.

- 3.2.1 Application and Fees. The Fire Suppression Systems Company shall make application to the Office of State Fire Marshal, meet the requirements of this Regulation, and pay the required fees.
- 3.2.2 Address. A specific current business address shall be maintained by the licensee. The licensee shall notify the Office of State Fire Marshal in writing within fourteen (14) days of any change of address.
- 3.2.3 Certificate Holder. Each Fire Suppression Systems Company, shall have a CERTIFICATE HOLDER, who shall be in a position of RESPONSIBLE CHARGE, with the licensed company. This person, or persons, shall pass an examination on and become certified in the categories pertaining to the activities of the Fire Suppression Systems Company.
- 3.2.4 Delaware Business License. The Fire Suppression Systems Company shall hold a current Delaware Business License as defined in 30 **Del.C.** §2301, and must be qualified to do business in the State of Delaware and must be registered with the Secretary of State. A copy of the current Delaware Business License shall be submitted at the time of application for a license and upon each subsequent renewal request.

##### 3.3 Licensure Limitations

- 3.3.1 The Fire Suppression Systems Company shall be limited to performing functions related only to those types of activities for which the Certificate Holder has been certified.
- 3.3.2 If the Certificate Holder and the Fire Suppression Systems Company terminate their relationship, the Certificate Holder and the Company, each must notify the Office of State Fire Marshal, in writing, within five (5) business days.

##### 3.4 Insurance Required.

- 3.4.1 The State Fire Marshal shall not issue a license under these Regulations unless:
- 3.4.1.1 The Fire Suppression Systems Company files with the Office of State Fire Marshal proof of liability insurance coverage of not less than \$250,000 per person minimum and \$500,000 per accident minimum;
  - 3.4.1.2 The Fire Suppression Systems Company must file proof of State of Delaware Worker's Compensation Insurance in accordance with 19 Del.C. Ch. 23 - Workers' Compensation. Any company, business, or person(s) claiming an exemption from Workers' Compensation laws of this State shall provide proof in the form of a written correspondence to the Office of the State Fire Marshal that the company, business, or person(s) is not required by the laws of this State to maintain Workers' Compensation coverage.
- 3.4.2 Any insurance required by this Section must be in the form of a Certificate of Insurance executed by an insurer authorized to do business in this State.
- 3.4.3 Insurance Certificates filed with the Office of State Fire Marshal under this Section shall remain current and in force until the insurer has terminated future liability by a 10 day notice to the Office of State Fire Marshal.
- 3.4.4 Failure to maintain the required insurance constitutes grounds for denial, suspension or revocation of a license by the State Fire Marshal.

#### **4.0 Certification.**

##### **4.1 Certificate Holder.**

- 4.1.1 A Certificate Holder is the individual who has met the requirements of this Regulation and has been granted a Certificate for one or more of the Certificate Classifications defined in this Chapter. This person shall be the individual of RESPONSIBLE CHARGE, as defined in these Regulations.
- 4.1.2 The Certificate Holder is the person in RESPONSIBLE CHARGE of ensuring that the functions for which they have been certified have been performed in accordance with the standards and specifications of the Delaware State Fire Prevention Regulations.
- 4.1.3 All Certificates issued under this Section shall be valid for one year and renewed annually on a form provided by the Office of State Fire Marshal.
- 4.1.4 The Certificate year period shall expire on a date as scheduled by the State Fire Marshal, pursuant to the provisions of 16 Del.C. §6607, (g)(5)(d).
- 4.1.5 The State Fire Marshal has the authority to require all Certificate Holders to submit to a re-certification or continuing education program at a frequency, set as a minimum, of five (5) years. The re-certification or continuing education cannot occur more frequently than every five (5) years.

##### **4.2 Classification of Certificates.**

- 4.2.1 Class I: All types of fire suppression systems under Classes II, III, IV and VI(b).
- 4.2.2 Class II: Limited to the design, preparation of technical documents, maintenance, and installation of sprinkler and standpipe systems beginning at the point where the water supply is used exclusively for the fire suppression system.
- 4.2.3 Class III: Limited to the design, preparation of technical documents, maintenance, and installation of engineered systems in the following categories:
  - III(a) Limited to CO2 fire suppression systems.
  - III(b) Limited to clean agent fire suppression systems.
  - III(c) Limited to foam fire suppression systems.
  - III(d) Limited to dry chemical fire suppression systems.
  - III(e) Limited to water mist fire suppression systems
- 4.2.4 Class IV: Limited to the design, preparation of technical documents, maintenance, and installation of ~~fire suppression~~ sprinkler systems in one- and two-family dwellings and/or manufactured homes.
- 4.2.5 Class V: Limited to the design, preparation of technical documents, maintenance, and installation of pre-engineered systems in the following categories:

- V(a) Limited to pre-engineered CO2 fire suppression systems
- V(b) Limited to pre-engineered clean agent fire suppression systems
- V(c) Limited to pre-engineered foam fire suppression systems
- V(d) Limited to pre-engineered dry chemical fire suppression systems
- V(e) Limited to pre-engineered wet chemical fire suppression systems
- V(f) Limited to pre-engineered water mist suppression systems.

~~NOTE: A manufacturer's certification in specific systems is to be considered equivalent to a Class V Certificate in the specific category.~~

- 4.2.6 ~~Class VI: Limited to performing the inspection, testing and maintenance service of fire suppression protection systems as specified in the National Fire Protection Association's National Fire Codes, for all fire suppression systems covered under Certificate Classifications II, III, and IV in the following categories.~~

Class VI (a): Limited to performing the inspection and testing service of water based fire protection systems as specified in the National Fire Protection Association's National Fire Codes, for all fire suppression systems covered under Certificate Classifications II and IV.

Class VI (b): Limited to performing the inspection, testing and maintenance service of fire suppression systems that are not water based as specified in the National Fire Protection Association's National Fire Codes, for all fire suppression systems covered under Certificate Classification III and performing maintenance service of water based fire protection systems as specified in the National Fire Protection Association's National Fire Codes, for all fire suppression systems covered under Certificate Classifications II and IV.

- 4.2.7 ~~Class VII: Limited to underground fire service mains and their appurtenances which supply fire suppression systems or equipment~~ Reserved.

- 4.2.8 Class VIII: Limited to In-House Fire Suppression Systems.

Class VIII(a): Limited to inspection and testing of wholly owned or proprietary water-based fire suppression systems in accordance with Chapter 7 - Licensing Requirements for Fire Suppression System In-House Licensee's. This class of certificate is for In-House Licensees.

Class VIII(b): Limited to inspection, testing, and maintenance service of wholly owned or proprietary fire suppression systems that are not water-based and the maintenance of water-based fire suppression systems in accordance with Chapter 7 - Licensing Requirements for Fire Suppression System In-House Licensee's. This class of certificate is for In-House Licensees.

#### 4.3 Qualifications.

- 4.3.1 To qualify as a Certificate Holder an individual shall:

- 4.3.1.1 Be a resident of the United States of America, or be entitled to work in the United States of America, and be at least 18 years of age;
- 4.3.1.2 Apply to the Office of State Fire Marshal, meet the requirements set forth in this Regulation and pay the required fees as listed in Appendix E;
- 4.3.1.3 Be a full time employee, as defined herein, of the Fire Suppression Systems Company, and be in Responsible Charge of the preparation of technical documents, installation, inspection, testing, or maintenance of fire suppression systems;
- 4.3.1.4 Have passed an examination prescribed by the Delaware State Fire Prevention Commission or an equivalent examination approved by the Delaware State Fire Prevention Commission. Any examination that has been passed as prescribed by the Delaware State Fire Prevention Commission, must have been completed within five (5) years of the application date or, when an individual submits such examination results for the Commission's review and acceptance.
- 4.3.1.5 For the purposes of this Regulation Chapter, a Registered Delaware Professional Engineer shall be recognized as a Certificate Holder without further qualification for all Classifications of Certificates except Class VI(a) and VIII(a).

#### 4.4 Limitations.



- 4.4.1 A Certificate Holder may only be in a position of RESPONSIBLE CHARGE for the functions for which they have been certified.
- 4.4.2 The authority of the Certificate Holder on behalf of the licensed Fire Suppression Systems Company shall cease immediately upon separation from the Fire Suppression Systems Company.
- 4.4.3 The Fire Suppression Systems Company and the Certificate Holder, each must notify the Office of State Fire Marshal, in writing, within five (5) business days after the separation.
- 4.4.4 Upon separation of the Certificate Holder from the licensed company, the Fire Suppression Systems Company may complete existing work in progress which has been submitted, reviewed and approved by the Office of State Fire Marshal, but may not commence any new work or conduct any inspection work until a Certificate Holder is hired.
- 4.4.5 Upon the expiration of the current license or within six (6) months (whichever occurs last), if the Fire Suppression Systems Company has not obtained a Certificate Holder, the State Fire Marshal shall terminate the Fire Suppression Systems Company's license.

## **5.0 (Reserved) Persons Inspecting or Testing Water-Based Fire Protection Systems**

- 5.1 All persons involved in the inspection and testing of water-based fire protection systems shall maintain current certification in the National Institute for Certification in Engineering Technologies (NICET) Level II - Inspection and Testing of Water-based Systems certification program or substantially similar and equivalent course of instruction, as determined by the State Fire Marshal, as a condition of obtaining or renewing a certificate, license, or permit pursuant to 16 Del.C. § 6603(b).
  - 5.1.1 It is incumbent on the applicant to provide all documentation and any other supporting material to substantiate a similar or equivalent certification program for consideration by the State Fire Marshal.
- 5.2 All person involved in the inspection and testing of water-based fire protection systems shall complete sixteen (16) contact hours of continuing education or similar course of instruction during each biennial period of renewal.
  - 5.2.1 Any and all continuing education requirements completed pursuant to 5-5.1 of this Chapter may be used to meet the continuing education requirements pursuant to 16 Del.C. §6603(c).

## **Chapter 6 Licensing Regulations for Fire Alarm Signaling System In-House Licensee's**

### **3.0 Licenses.**

- 3.1 License Required.
  - 3.1.1 Every In-House Licensee operating in the State of Delaware shall obtain a license issued by the Office of State Fire Marshal.
  - 3.1.2 The application for such license shall be in accordance with the provisions of §3.2 of this chapter of this Regulation.
  - 3.1.3 All licenses issued under this Section shall be valid for one year and renewed annually by the license holder on a form provided by the Office of State Fire Marshal.
  - 3.1.4 The license year period shall expire on a date as scheduled by the State Fire Marshal, pursuant to the provisions of 16 Del.C. §6607, (g)(5)(d).
- 3.2 Licensure Requirements.
  - 3.2.1 Application and Fees. The In-House Licensee shall make application to the Office of State Fire Marshal, meet the requirements of this Regulation and pay the required fees.
  - 3.2.2 Address. A specific current business address shall be maintained by each In-House Licensee. The In-House Licensee shall notify the Office of State Fire Marshal, in writing, within fourteen (14) days of any change of address.
  - 3.2.3 Certificate Holder. Each In-House Licensee shall have a CERTIFICATE HOLDER, who shall be in a position of RESPONSIBLE CHARGE, with the In-House Licensee. This person or persons shall

- pass an examination on and become certified in the categories pertaining to the activities of the In-House Licensee.
- 3.2.4 Delaware Business License. The In-House Licensee shall hold a current Delaware Business License as defined in 30 **Del.C.** §2301, and must be qualified to do business in the State of Delaware and must be registered with the Secretary of State. A copy of the current Delaware Business License shall be submitted at the time of application for a license and upon each subsequent renewal request.
- 3.3 Licensure Limitations.
- 3.3.1 The In-House Licensee shall be limited to performing testing, inspection, and maintenance functions only to those types of fire alarm signaling systems for which the Certificate Holder has been certified.
- 3.3.2 If the Certificate Holder and the In-House Licensee, terminate their relationship, the Certificate Holder and the In-House Licensee, each must notify the Office of State Fire Marshal, in writing, within five (5) business days.
- 3.4 Insurance Required.
- 3.4.1 The State Fire Marshal shall not issue a license under these Regulations unless:
- 3.4.1.1 The In-House Licensee files with the Office of State Fire Marshal, proof of liability insurance of not less than \$250,000 per person minimum and \$500,000 per accident minimum.
- 3.4.1.2 The In-House Licensee must file proof of State of Delaware Workmen's Compensation Insurance in accordance with 19 **Del.C.** Ch. 23 - Workers' Compensation. Any company, business, or person(s) claiming an exemption from Workers' Compensation laws of this State shall provide proof in the form of a written correspondence to the Office of the State Fire Marshal that the company, business, or person(s) is not required by the laws of this State to maintain Workers' Compensation coverage.
- 3.4.1.3 For In-House Licensees that are self-insured, an affidavit to that fact must be filed with the Office of State Fire Marshal stating the conditions for self-insurance.
- 3.4.2 Any insurance required by this Section must be in the form of a Certificate of Insurance executed by an insurer authorized to do business in this State.
- 3.4.3 Insurance Certificates filed with the Office of State Fire Marshal under this Section shall remain current and in force until the insurer has terminated future liability by a ten (10) day notice to the Office of State Fire Marshal.
- 3.4.4 Failure to maintain the required insurance constitutes grounds for denial, suspension, or revocation of a license by the Office of State Fire Marshal.

## **Chapter 7 Licensing Regulations for Fire Suppression System In-House Licensee's**

### **3.0 Licenses.**

- 3.1 License Required.
- 3.1.1 Every In-House Licensee operating in the State of Delaware shall obtain a license issued by the Office of State Fire Marshal.
- 3.1.2 The application for such license shall be in accordance with the provisions of §3.2 of this Regulation.
- 3.1.3 All licenses issued under this Section shall be valid for one year and renewed annually by the license holder on a form provided by the Office of State Fire Marshal.
- 3.1.4 The license year period shall expire on a date as scheduled by the State Fire Marshal, pursuant to the provisions of 16 **Del.C.** §6607 (g)(5)(d).
- 3.2 Licensure Requirements.
- 3.2.1 Application and Fees. The In-House Licensee shall make application to the Office of State Fire Marshal, meet the requirements of this Regulation and pay the required fees.

- 3.2.2 Address. A specific current business address shall be maintained by each In-House Licensee. The In-House Licensee shall notify the Office of State Fire Marshal, in writing, within fourteen days of any change of address.
- 3.2.3 Certificate Holder. Each In-House Licensee shall have a CERTIFICATE HOLDER, who shall be in a position of RESPONSIBLE CHARGE, with the In-House Licensee. This person or persons shall pass an examination on and become certified in the categories pertaining to the activities of the In-House Licensee.
- 3.2.4 Delaware Business License. The In-House Licensee shall hold a current Delaware Business License as defined in 30 **Del.C.** §2301, and must be qualified to do business in the State of Delaware and must be registered with the Secretary of State. A copy of the current Delaware Business License shall be submitted at the time of application for a license and upon each subsequent renewal request.
- 3.3 Licensure Limitations.
  - 3.3.1 The In-House Licensee shall be limited to performing testing, inspection, and maintenance functions related only to those types of activities for which the Certificate Holder has been certified.
  - 3.3.2 If the Certificate Holder and the In-House Licensee terminate their relationship, the Certificate Holder and the In-House Licensee, each must notify the Office of State Fire Marshal, in writing, within five (5) business days of the termination.
- 3.4 Insurance Required.
  - 3.4.1 The State Fire Marshal shall not issue a license under these Regulations unless:
    - 3.4.1.1 The In-House Licensee files with the Office of State Fire Marshal, proof of liability insurance coverage of not less than \$250,000 per person minimum and \$500,000 per accident minimum;
    - 3.4.1.2 The In-House Licensee must file proof of State of Delaware Worker's Compensation Insurance in accordance with 19 **Del.C.** Ch. 23 - Workers' Compensation. Any company, business, or person(s) claiming an exemption from Workers' Compensation laws of this State shall provide proof in the form of a written correspondence to the Office of the State Fire Marshal that the company, business, or person(s) is not required by the laws of this State to maintain Workers' Compensation coverage;
    - 3.4.1.3 For In-House Licensees that are self-insured, an affidavit to that fact must be filed with the Office of State Fire Marshal stating the conditions for self-insurance.
  - 3.4.2 Any insurance required by this Section must be in the form of a Certificate of Insurance executed by an insurer authorized to do business in this State.
  - 3.4.3 Insurance Certificates filed with the Office of State Fire Marshal under this Section shall remain current and in force until the insurer has terminated future liability by a ten (10) day notice to the Office of State Fire Marshal.
  - 3.4.4 Failure to maintain the required insurance constitutes grounds for denial, suspension or revocation of a license by the Office of State Fire Marshal.

#### **4.0 Certification.**

- 4.1 Certificate Holder.
  - 4.1.1 A Certificate Holder is the individual who has met the requirements of this Regulation and has been granted a Certificate under the appropriate classification for this Chapter. This person shall be the individual of RESPONSIBLE CHARGE, as defined in these Regulations.
  - 4.1.2 The Certificate Holder is the person in RESPONSIBLE CHARGE of ensuring that the required Inspection, Testing, and Maintenance Services for which they have been certified, have been performed in accordance with the specifications and standards of the Delaware State Fire Prevention Regulations.
  - 4.1.3 All Certificates issued under this Section shall be valid for one year and renewed annually on a form provided by the Office of State Fire Marshal.

- 4.1.4 The Certificate year period shall expire on a date as scheduled by the State Fire Marshal, pursuant to the provisions of 16 Del.C. §6607(g)(5)(d).
- 4.1.5 The Office of State Fire Marshal has the authority to require all Certificate Holders to submit to a re-certification or continuing education process at a frequency set, as a minimum, of five (5) years. The re-certification or continuing education cannot occur more frequently than every five (5) years.
- 4.2 Classification of Certificates.
  - 4.2.1 ~~Class VIII: Limited to Inspection, Testing, or Maintenance Service of wholly owned or proprietary fire suppression systems in accordance with the PURPOSE, SCOPE AND APPLICATION; AND DEFINITIONS, for the periodic and annual inspection, testing or maintenance requirements of the Delaware State Fire Prevention Regulations. This class of certificate is reserved for those In-House Licensees as defined in §2.0 of this Chapter In-House Fire Suppression Systems.~~  
Class VIII(a): Limited to inspection and testing of wholly owned or proprietary water-based fire suppression systems in accordance with Chapter 7 - Licensing Requirements for Fire Suppression System In-House Licensee's. This class of certificate is for In-House Licensees.  
Class VIII(b): Limited to inspection, testing, and maintenance service of wholly owned or proprietary fire suppression systems that are not water-based and the maintenance of water-based fire suppression systems in accordance with Chapter 7 - Licensing Requirements for Fire Suppression System In-House Licensee's. This class of certificate is for In-House Licensees.
- 4.3 Qualifications for a Certificate Holder.
  - 4.3.1 To qualify as a Certificate Holder, an individual shall:
    - 4.3.1.1 Be a resident of the United States of America or be entitled to work in the United States of America and be at least 18 years of age;
    - 4.3.1.2 Apply to the Office of State Fire Marshal, meet the requirements as set in these Regulations and pay the required fees as listed in Appendix E;
    - 4.3.1.3 Be a full time employee, as defined herein, of the In-House Licensee, and be in Responsible Charge of the inspection, testing or maintenance of the fire suppression systems;
    - 4.3.1.4 Have passed an examination prescribed by the Delaware State Fire Prevention Commission or an equivalent examination approved by the Delaware State Fire Prevention Commission. Any examination that has been passed as prescribed by the Delaware State Fire Prevention Commission must have been completed within five (5) years of the application date or, when an individual submits such examination results for the Commission's review and acceptance.
    - 4.3.1.5 For the purposes of this Regulation, a Registered Delaware Professional Engineer shall be recognized as a Certificate Holder without further qualification.
- 4.4 Limitations.
  - 4.4.1 A Certificate Holder may only be in a position of RESPONSIBLE CHARGE for the functions for which they have been certified.
  - 4.4.2 The authority of the Certificate Holder on behalf of the In-House Licensee shall cease immediately upon separation from the In-House Licensee.
  - 4.4.3 The In-House Licensee and the Certificate Holder, each must notify the Office of State Fire Marshal, in writing, within five (5) business days after the separation.
  - 4.4.4 Upon separation of the Certificate Holder from the In-House Licensee, the Certificate Holder must be replaced within six (6) months. Existing work in progress which has been submitted, reviewed and approved by the Office of State Fire Marshal may continue, but new work may not commence and inspection work may not be conducted until a Certificate Holder is hired.
  - 4.4.5 Upon the expiration of the current license or within six (6) months (whichever occurs last), if the In-House Licensee has not obtained a Certificate Holder, the State Fire Marshal shall terminate the In-House Licensee's license.

## **5.0 (Reserved) Persons Inspecting or Testing Water-Based Fire Protection Systems**

- 5.1** All persons involved in the inspection and testing of water-based fire protection systems shall maintain current certification in the National Institute for Certification in Engineering Technologies (NICET) Level II - Inspection and Testing of Water-based Systems certification program or substantially similar and equivalent course of instruction, as determined by the State Fire Marshal, as a condition of obtaining or renewing a certificate, license, or permit pursuant to 16 Del.C. § 6603(b).
- 5.1.1** It is incumbent on the applicant to provide all documentation and any other supporting material to substantiate a similar or equivalent certification program for consideration by the State Fire Marshal.
- 5.2** All person involved in the inspection and testing of water-based fire protection systems shall complete sixteen (16) contact hours of continuing education or similar course of instruction during each biennial period of renewal.
- 5.2.1** Any and all continuing education requirements completed pursuant to 5-5.1 of this Chapter may be used to meet the continuing education requirements pursuant to 16 Del.C. §6603(c).

## **704 Hazardous Processes and Operations**

### **Chapter 1 ~~Fumigation or Thermal Insecticidal Fogging~~ [Standard for] Reduced Ignition Propensity Cigarettes**

~~This Chapter Has Been Reserved. [This Chapter Has Been Reserved.]~~

#### **1.0 General**

##### **1.1 Scope**

**1.1.1** ~~This Chapter implements regulations for the Reduced Ignition Propensity Cigarettes Law under 16 Del. C. Ch. 71A. Reduced Ignition Propensity Cigarettes.~~

##### **1.2 Purpose**

**1.2.1** ~~The purpose of this regulation is to promulgate regulations as necessary to implement and administer 16 Del. C. Ch. 71A Reduced Ignition Propensity Cigarettes, and;~~

**1.2.2** ~~To promulgate regulations to conduct random inspections of wholesale dealers, agents, and retail dealers to ensure that only cigarettes complying with 16 Del. C. Ch. 71A are sold in the State.~~

##### **1.3 Application**

**1.3.1** ~~This regulation shall apply to those operating in the State of Delaware in manufacturing, wholesaling, and/or retail sales of cigarettes.~~

**1.3.2** ~~This regulation does not apply to cigarettes purchased outside of the State of Delaware that are not offered for sale in the State.~~

#### **2.0 Definitions**

**2.1** ~~The definitions found in this Chapter shall be in addition to the definitions found in other sections of these Regulations and shall be inclusive for this Chapter only.~~

~~“Agent” Any person authorized by the State to purchase and affix tax stamps on packages of cigarettes.~~

~~“Cigarette”~~

- ~~• Any roll for smoking whether made wholly or in part of tobacco or any other substance, irrespective of size or shape and whether or not such tobacco or substance is flavored, adulterated or mixed with any other ingredient, the wrapper or cover of which is made of paper or any other substance or material other than leaf tobacco; or~~
- ~~• Any roll for smoking wrapped in any substance containing tobacco which, because of its appearance the type of tobacco used in the filler or its packaging and labeling, is~~

~~likely to be offered, or purchased by, consumers as a cigarette as described in paragraph (2)a. of this section above.~~

~~“Manufacturer”~~

- ~~■ Any entity which manufactures or otherwise produces cigarettes or causes cigarettes to be manufactured or produced anywhere that such manufacturer intends to be sold in this State, including cigarettes intended to be sold in the United States through an importer; OR~~
- ~~■ The first purchaser anywhere that intends to resell in the United States cigarettes manufactured anywhere that the original manufacturer or maker does not intend to be sold in the United States; or~~
- ~~■ Any entity that becomes a successor of an entity described in paragraph (a) or (b) of this section.~~

~~“Quality Control” and “Quality Assurance Program” The laboratory procedures implemented to ensure that operator bias systematic and nonsystematic methodological errors and equipment related problems do not affect the results of the testing. This program ensures that the testing repeatability remains within the required repeatability values stated in 16 Del. C. § 7117(a)(6) for all test trials used to certify cigarettes in accordance with this Regulation and 16 Del. C. Ch. 71A.~~

~~“Repeatability” The range of values within which the repeat results of cigarette test trials from a single laboratory will fall 95 percent of the time.~~

~~“Retail Dealer” Any person other than a manufacturer or wholesale dealer engaged in selling cigarettes or tobacco products.~~

~~“Sale” In addition to its usual meaning, any sale, transfer, exchange, theft, barter, gift or offer for sale and distribution, in any manner or by any means whatsoever.~~

~~“Sell” To sell or to offer or agree to do the same.~~

~~“State Fire Marshal” The Delaware State Fire Marshal or the State Fire Marshal's deputies.~~

~~“Wholesale Dealer” Any person who sells cigarettes or tobacco products to retail dealers or other persons for purposes of resale, and any person who owns, operates or maintains 1 or more cigarette or tobacco product vending machines in, at or upon premises owned or occupied by any other person.~~

**3.0 Fundamental Requirements**

- 3.1 Every cigarette brand style sold in the State of Delaware must comply with the Reduced Ignition Propensity Cigarettes law under 16 Del. C. Ch. 71A.**
- 3.2 Every cigarette offered for sale in the State of Delaware must exhibit package markings indicating that the cigarette has been tested and certified under the requirements of the Reduced Ignition Propensity Cigarettes Law. (16 Del. C. Ch. 71A)**
- 3.3 Every cigarette brand style must be certified by the State Fire Marshal prior to being offered for sale in Delaware.**
  - 3.3.1 Every cigarette brand style must be recertified by the State Fire Marshal every three years from the last date that the cigarette brand style was approved.**

**4.0 Testing Method and Performance Standard**

- 4.1 Cigarettes offered for sale in the State must comply with the testing method and performance standard defined in 16 Del. C. §7117.**
  - 4.1.1 No cigarette may be sold or offered for sale in this State or offered for sale or sold to persons located in this State unless such cigarettes have been tested in accordance with the test method and meet performance standard specified in 16 Del. C. §7117.**

~~4.2 The Office of the State Fire Marshal will certify and register cigarette brand styles that are permitted to be sold or offered for sale in the State of Delaware after reviewing and approving the cigarette manufacturer's submission as outlined in 16 Del. C. §7118.~~

~~4.3 The Office of the State Fire Marshal will maintain a directory of cigarette brand styles that are permitted to be sold or offered for sale in the State.~~

#### **5.0 Package Markings**

~~5.1 All packages containing reduced ignition propensity cigarettes shall be marked indicating that the cigarettes have been certified by the manufacturer in compliance of 16 Del. C. Ch. 71A.~~

~~5.1.1 Prior to certification of any cigarette, a manufacturer shall present its proposed marking to the State Fire Marshal for approval.~~

~~5.1.2 Upon receipt of the request, the State Fire Marshal or State Fire Marshal designee shall approve or disapprove the marking offered.~~

~~5.2 Manufacturers requesting their markings to be approved must submit an exemplar to the Office of the State Fire Marshal for each brand style.~~

#### **6.0 Enforcement**

~~6.1 The Office of the State Fire Marshal is responsible to administer and manage the Reduced Ignition Propensity Cigarettes Program.~~

~~6.2 Enforcement of the Reduced Ignition Propensity Cigarettes program will be coordinated through the Office of the State Fire Marshal.~~

#### **7.0 Penalties**

~~7.1 The State Fire Marshal shall assess all civil penalties as outlined in 16 Del. C. Ch. 71A.~~

~~7.2 All civil penalties will be paid within 30 days of assessment.~~

#### **8.0 Inspections**

~~8.1 The Office of the State Fire Marshal will conduct random inspections of wholesale and retail businesses engaged in the selling of cigarettes in the State of Delaware to ensure compliance with this Chapter.~~

~~8.2 Random selections of cigarettes in random locations throughout the State that sell or offer for sale cigarettes will be purchased and sent to a third party independent testing facility selected by the State Fire Marshal.~~

~~8.2.1 A total of 80 specific cigarettes from one cigarette brand style will be collected from various locations in the State selling or offering for sale that specific cigarette brand style.~~

~~8.2.2 A total of 40 specific cigarettes from one cigarette brand style will be tested by an independent accredited testing facility selected by the State Fire Marshal.~~

~~8.2.3 The remaining 40 specific cigarettes from one cigarette brand style will be held with the Office of the State Fire Marshal.~~

~~8.3 Any cigarette brand style that fails the compliance test will be retested from the remaining 40 specific cigarettes being held by the Office of the State Fire Marshal.~~

~~8.3.1 The manufacturer shall be notified by the Office of the State Fire Marshal of the initial compliance test failure.~~

~~8.4 Any cigarette brand style that fails the second confirmation test will be decertified by the Office of the State Fire Marshal.~~

~~8.4.1 The manufacturer shall be notified by the Office of the State Fire Marshal of the second failed test. The manufacturer will have no less than or no more than thirty calendar days to appeal the test results from the second test only. The manufacturer may not appeal the results of the first test.~~

~~8.4.2 The State Fire Marshal shall seek an injunction from the Attorney General's office for the removal of the decertified cigarette brand style from retail businesses selling or offering for sale the noncompliant cigarette brand style.~~

~~8.5 The Office of the State Fire Marshal will confiscate all noncompliant cigarettes being sold or offered for sale in the State.~~

## **9.0 Certification Renewal**

~~9.1 Every cigarette brand style must be certified by the State Fire Marshal every three years after the initial certification date on file with the Office of the State Fire Marshal.~~

~~9.2 Certification tests conducted by the manufacturer or manufacturer's representative must have been successfully completed no more than one year prior to the certification renewal date of the specific cigarette brand style.~~

~~9.2.1 Certification test data will not be accepted if the test completion date is greater than one year.~~

~~9.3 A registration fee of \$250 USD is required for each cigarette brand style certification.~~

~~9.3.1 Only domestic checks or money orders made payable to the State of Delaware will be accepted.~~

## **10.0 Statute**

~~10.1 No regulation promulgated in this Chapter is intended to supersede the requirements of 16 Del.C. Ch. 71A.]~~

# **705 General Fire Safety**

## **Chapter 1 General Fire Safety Requirements**

### **2.0 Required Access for Fire Apparatus and Fire Department.**

- 2.1 All premises which the fire department may be called upon to protect in case of fire and which are not readily accessible from public roads shall be provided with suitable gates, access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus.
- 2.2 Fire lanes shall be provided in accordance with the provisions of Regulation 705, Chapter 5 of these Regulations.
- 2.3 In the case of one- and two-family dwellings fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 feet of the front door.
- 2.4 Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The turn-around or cul-de-sac shall be arranged as follows:
  - 2.4.1 Turn-around - Turn-arounds must be arranged in accordance with one of the four standard designs shown in Regulation 705, Chapter 1, Figure 1.
  - 2.4.2 Cul-de-sac - The minimum paved radius of a cul-de-sac is 38 feet.
  - 2.4.3 Parking - Parking shall be prohibited in the turn-arounds and cul-de-sacs.
- 2.5 It shall be unlawful for any person to park motor vehicles on, or otherwise obstruct, any fire lane.
- 2.6 A lock box containing keys for fire department access shall be provided at the following occupancies:
  - 2.6.1 Any occupancy that contains a fire alarm signaling system that is monitored off-site, or
  - 2.6.2 Any occupancy that contains an automatic sprinkler system.

*Exception No. 1: Where an occupancy has on-site 24 hour guard service or is operating on a manned 24 hour operational cycle.*

*Exception No. 2: Where the fire department, in whose district the occupancy is located, indicates in writing to the State Fire Marshal that the lock box is not necessary.*



*Exception No. 3: One- and Two-Family dwellings.*

2.7 The lock box, as specified in §2.6, shall be listed or approved by the State Fire Marshal for the intended use and installed in such a manner that the fire department will have access to the box.

2.8 Gated Communities

2.8.1 The requirements of this section shall apply to all new gates installed and for any gate replacing more than 50% of the hardware and software after September 13, 2004.

2.8.2 Fire Department access shall be provided to all otherwise inaccessible gated communities, subdivisions, developments, or property by any other name through the use of a system or device authorized by the local Fire Chief and approved by the Office of the State Fire Marshal's Office after consultation with the local Fire Chief.

2.8.23 The system or device required in 2.8.42 shall be located in an area accessible to the fire department as determined by the local Fire Chief and approved by the Office of the State Fire Marshal's Office after consultation with the local Fire Chief.

2.8.3.1 A system shall consist of one manual and one automated means to open the gate. The owner or their representative shall meet with the local Fire Chief prior to submission to the Office of the State Fire Marshal to agree on the system. A letter of agreement shall be created, and signed by both parties. The letter shall include a detailed description of both the manual and automated means

A-2.8.3.1 The owner or representative, such as a Homeowner's Association or a Real Estate Management Company, should invite the gate contractor to the meeting with the Fire Chief so issues can be resolved prior to the plan submission. A representative of the Office of the State Fire Marshal can also be invited to the meeting if deemed necessary by either party.

2.8.3.2 To be considered accessible for fire department apparatus the actual clear openings shall be not less than 14 feet, the paved surface through the gate shall be not less than 12 feet, and the gate shall be setback from the perpendicular street by at least 50 feet.

Exception: If the 50 foot setback above is not possible, the actual clear openings and the paved surface through the gate shall be made wider than set forth above in order to accommodate all responding emergency response apparatus.

2.8.3.3 Plans submitted to the Office of the State Fire Marshal shall be provided at 1:20, 1:30, 1:40, or 1:50 scale.

2.8.34 The owner and/or occupant of the property requiring fire department access as specified in 2.8.42 and 2.8.23 shall maintain the approved system or device in strict accordance with the manufacturer's guidelines.

2.8.45 The owner and/or occupant of the property requiring fire department access shall not modify access in any manner that could prevent fire department access without obtaining prior approval from the Office of the State Fire Marshal's Office.

## **706 Specific Occupancy Requirements**

### **Chapter 1 Intermediate Care Facilities for the Mentally Retarded (ICFMR)**

#### **3.0 Fire Protection Required.**

3.1 Automatic fire suppression systems, automatic sprinklers, shall be installed as applicable, pursuant to the Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes, NFPA 13D, or the Standard for the Installation of Sprinkler Systems in Residential Occupancies Up To and Including Four Stories In Height, NFPA 13R, as adopted and/or modified by these Regulations.

3.2 All automatic sprinkler valves shall be electronically supervised and emergency forces notification shall be in accordance with ~~§7-6.4~~ of the Life Safety Code, NFPA 101, as adopted and/or modified by these Regulations.

3.3 (Reserved)

3.4 Fire department notification shall be accomplished in accordance with ~~§7-6.4~~ of the Life Safety Code, as adopted and/or modified by these Regulations.

**Note:** This requirement also appears in Regulation 701, Annex B, of these Regulations, and reappears in this specific occupancy chapter for clarification.

3.45 Portable fire extinguishers shall be provided near hazardous areas in Small Facilities in accordance with ~~§7-7~~ of the Life Safety Code, as adopted and/or modified by these Regulations.

**Note:** This requirement also appears in Regulation 701, Annex B, of these Regulations, and reappears in this specific occupancy chapter for clarification.

3.56 Emergency lighting shall be installed in Small Facilities in accordance with ~~§5-9~~ of the Life Safety Code, as adopted and/or modified by these Regulations.

**Note:** This requirement also appears in Regulation 701, Annex B, of these Regulations, and reappears in this specific occupancy chapter for clarification.

3.67 Means of egress shall be marked in Small Facilities in accordance with ~~§5-10~~ of the Life Safety Code, as adopted and/or modified by these Regulations.

**Note:** This requirement also appears in Regulation 701, Annex B, of these Regulations, and reappears in this specific occupancy chapter for clarification.

## Chapter 2 Bed and Breakfasts

### 2.0 General Requirements.

- 2.1 Not more than the second floor of the structure will be utilized for the rented rooms.
- 2.2 Each rented room shall have at least one primary means of escape and one secondary means of escape in accordance with ~~§24-2.2~~ the Chapter of the Life Safety Code, NFPA 101 that addresses One and Two-Family Dwellings, as adopted and/or modified by these Regulations.
- 2.3 A comprehensive smoke detection system is installed throughout the structure, and in accordance with ~~§24-3.3~~ the Chapter of the Life Safety Code, NFPA 101 that addresses One and Two-Family Dwellings and ~~§7-6.2.10~~ of the Chapter of the Life Safety Code, NFPA 101 that addresses Building Services and Fire Protection Equipment, as adopted and/or modified by these Regulations.
- 2.4 Unvented fuel-fired heating equipment shall be prohibited in bathrooms and sleeping areas.

*Exception: In all other areas, gas space heaters installed in compliance with NFPA 54, National Fuel Gas Code, as adopted and/or modified by these Regulations.*

**Note:** This requirement also appears in Regulation 701, Annex B, of these Regulations, and reappears in this specific occupancy chapter for clarification.<sup>1</sup>

## Chapter 3 Apartment Buildings/Multi-Family Dwellings

### 4.0 Fire Protection Required in New and Existing Apartment Buildings.

- 4.1 **Smoke Detection Systems Required.** All new apartment buildings shall be provided with an automatic smoke detection system in the interior corridors and/or hallways and/or stairways, in accordance with the Life Safety Code, NFPA 101, and the National Fire Alarm Code, NFPA 72, as adopted and/or modified by these Regulations.

*Exception: Where each dwelling unit is separated from other contiguous dwelling units by fire barriers having a fire resistance rating of not less than one hour, and where each dwelling unit has either its own independent exit or its own independent stairway or ramp discharging at grade.*

**Note:** This requirement also appears in Regulation 701, Annex B, of these Regulations, and reappears in this specific occupancy chapter for clarification.

- 4.1.1 All required corridor smoke detection systems shall initiate the building fire alarm signaling system.
- 4.2 A corridor smoke detection system shall be installed in all apartment buildings in accordance with ~~§7-6,~~ of the Life Safety Code, NFPA 101, as adopted and/or modified by these Regulations.

**Note:** This requirement also appears in Regulation 701, Annex B, of these Regulations, and reappears in this specific occupancy chapter for clarification.

- 4.3 **Multiple Station Smoke Detectors.** In each apartment or residential unit of an apartment building or multi-family residential occupancy, hardwired, battery back-up, single or multiple station smoke detectors shall be installed according to the following:
- 4.3.1 One in each living unit located near the bedroom area(s); and
- 4.3.2 One in each sleeping room and/or bedroom.
- 4.4 **Portable Fire Extinguishers.** All apartment buildings shall be provided with portable fire extinguishers, placed as follows:
- 4.4.1 At least one extinguisher with a rating of at least 2A-10BC shall be located on each stairway landing of every stairway common to two or more apartment units.
- Exception: In lieu of the above, the owner may provide at least one extinguisher with a rating of at least 1A-10BC to each individual apartment unit.*
- 4.4.2 Each hazard area (such as laundry room, storage area, etc.) shall be provided with at least one extinguisher with a minimum rating of 2A-20BC.

## Appendix E

Modify by adding text to explain the use of the words, “per complex in the exceptions

Fire Alarm Certificate of Inspection      \$ 25.00 per System

*Exception: Apartment or other multi-family dwellings:*

- (1) Five (5) or less buildings per complex: \$25.00 for each fire alarm system;

The term “complex” as is referenced in these portions of the Delaware State Fire Prevention Regulation, is to indicate apartments or multi-family buildings that are located in the same general geographic area and owned by the same individual(s) or management group or other business entity.

- (2) More than five (5) buildings per complex: \$15.00 for each fire alarm system up to a maximum of twenty (20) buildings. Maximum fee per complex not to exceed \$300.00 for fire alarm systems.

Fire Alarm Company License	\$25.00
Fire Extinguisher License	\$50.00
Fire Suppression Certificate Holder	\$25.00

Fire Suppression Certificate of Inspection    \$25.00 per System

*Exception: Apartment or other multi-family dwellings:*

*(1) Five (5) or less buildings per complex: \$25.00 for each fire suppression system;*

The term "complex" as is referenced in these portions of the Delaware State Fire Prevention Regulation, is to indicate apartments or multi-family buildings that are located in the same general geographic area and owned by the same individual(s) or management group or other business entity.

*(2) More than five (5) buildings per complex: \$15.00 for each fire suppression system up to a maximum of twenty (20) buildings. Maximum fee per complex not to exceed \$300.00 for fire suppression systems.*

**13 DE Reg. 629 (11/01/09) (Final)**