# DELAWARE STATE FIRE PREVENTION COMMISSION

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

## FINAL

### ORDER

### 2006 Delaware State Fire Prevention Regulations

The Delaware State Fire Prevention Commission ("the Commission") held a properly noticed public hearing on June 20, 2006, to receive comment on proposed additions, revisions, deletions, modifications and reservations to Commission Regulations. (Attached to this Order as "Exhibit A"). The attendance sheets and transcriber minutes of this hearing are attached to this Order as "Exhibit B" in lieu of a statement of summary of the evidence. Similarly, those written comments received by the Commission and introduced into evidence at the hearing of the State Fire Marshal and other speakers are attached to this Order as "Exhibit C".

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

1. There was no public comment received concerning the following proposed regulations:

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|---|---|
| Part I, Annex A | |
| Part I, Annex C | |
| Part I, Chapter 2 | Definitions |
| Part I, Chapter 5 | Listing-Approval and Accreditation |
| Part II, Chapter 2 | Fire Barriers |
| Part II, Chapter 3 | Special Fire Safety Provisions for Physically Handicapped People |
| Part II, Chapter 4 | Automatic Sprinkler Systems |
| Part II, Chapter 5 | High Rise and Large Area Building |
| Part II, Chapter 6 | Standard for Fire Flow for Fire Protection |
| Part II, Chapter 7 | Minimum Requirements for Water Suppliers |
| Part III, Chapter 4 | Licensing Regulations for Fire Alarm Signaling System |
| Part III, Chapter 5 | Licensing Regulations for Fire Suppression Systems |
| Part III, Chapter 6 | Licensing Regulations for Fire Alarm Signaling System In-House Licensee's |
| Part III, Chapter 7 | Licensing Regulations for Fire Suppression System In-House Licenssee's |
| Part V, Chapter 1 | General Fire Safety Requirements |
| Part VI, Chapter 1 | Intermediate Care Facilities for the Mentally Retarded |
| Part VI, Chapter 3 | Apartment Buildings/Multi-Family Dwellings |
| Part VI, Chapter 7 | Haunted Houses |
| Appendix D | |

2. The Commission heard testimony concerning the provision of NFPA 70, the National Electric Code, Article 210.12 and Article 550.25(B)(Annex B) regarding arc-fault circuit interrupting protection. The Commission notes the testimony of the State Fire Marshal's Office that the proposed regulations do not amend the Regulations adopted in 2003 other than to confirm the language of the Delaware Regulations to the 2005 edition of NFPA 70.

### THE LAW

The State Fire Prevention Commission's rulemaking authority is provided by 19 **Del.C**. §6603 that states:

**§6603. State Fire Prevention Commission - Promulgation of regulations.**
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. Such regulations, amendments or repealers shall be in accordance with standard safe practice as

embodied in widely recognized standards of good practice for the fire prevention and fire protection and shall have the force and effect of law in the several counties, cities and political subdivision of the State.

**DECISION**

The Commission hearby adopts the Regulations as proposed with the alterations and clarifications noted in this Order and a copy of the Regulations as adopted is attached to this Order. The Commission relies upon its expertise in this area and the evidence presented in the testimony and documents submitted especially the submission on behalf of the State Marshal and witnesses in support of the changes.

**It is so Ordered this 18th day of July, 2006.**

**STATE FIRE PREVENTION COMMISSION**

| | |
|---|---|
| Kenneth H. McMahon, Chairman | W. (Bill) Betts, Jr., Vice Chairman |
| Marvin Sharp | Frances J. Dougherty |
| Bob Ricker | Raymond Stevens |

**Summary of 2006 proposed changes to the Delaware State Fire Prevention Regulations**

Enclosed are the changes proposed on April 18, 2006 to the State Fire Prevention Commission for consideration. Throughout the document, words that are shown as "struck through" (~~Example~~) represent text that will be deleted. Words that are “underlined” (Example) represent text that will be added. The following is a summary of the changes.

1. Part I, Chapter 2 (Definitions) has minor changes including rewrite of some definitions and 6 additional definitions.
2. Part I, Chapter 5 has been rewritten for better clarity.
3. Part I, ANNEX A is mostly an update to the more recent editions of NFPA Codes and Standards that are presently adopted by the Regulation. Part I, ANNEX A now also includes the Uniform Fire Prevention Code.
4. Part I, ANNEX B is mostly an update of the proper section and paragraph numbers from the adopted NFPA Codes and Standards that are presently amended by the Regulation. It also contains a few additional amendments to the adopted NFPA Codes and Standards.
5. Part I, ANNEX C has been added to provide a separate location to show the amendments made to the Uniform Fire Prevention Code adopted by the Regulation.
6. A new section has been added to address the use of Vertical Platform Lifts.
7. Part II, Chapter 5 deletes requirements that were stated elsewhere and added the number of stories to the present height criteria for high rise buildings.
8. Part II, Chapter 6 modified to address how to calculate the hydrant spacing requirement.
9. Part II, Chapter 7 has text added to have Water Suppliers coordinate with the local fire companies regarding the threads on hydrant connections and regarding hydrant operation.
10. Part III, Chapter 3 modified to require annual fire hydrant inspection.
11. Part V, Chapter 1 modified to prohibit all live Christmas trees in certain occupancies.
12. Part V, Chapter 1 modified to further clarify the intent of the minimum elevator cab size.
13. Part VI Chapter 7 added to address "haunted houses" used on a temporary basis.
14. APPENDIX D is an update to the more recent editions of NFPA Guides and Recommended Practices that are not adopted as requirements by the Regulation.

**PART – I; Chapter- 2**

**Paragraph: 2-1**
**Revise Definitions, as follows:**

Dwelling~~, One- and Two-Family~~. A single unit providing complete and independent living facilities for one or more persons including permanent provisions for living, sleeping, eating, cooking, and sanitation.

High Rise Building. Any building which is over ~~four (4) stories or forty feet~~ five (5) stories or fifty feet in height.

**PART – I; Chapter- 2**

**Paragraph: 2-1**
**Add the following definitions:**

Garage. A building or a portion of a building in which one or more self-propelled vehicles carrying volatile flammable liquid for fuel or power are kept for use, sale, storage, rental, repair, exhibition, or demonstrating purposes, and all that portion of a building that is on or below the floor or floors in which such vehicles are kept and that is not separated as required elsewhere by the Regulation.

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.

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

Mini-Storage Building. A storage occupancy partitioned into areas that are rented or leased for the purposes of storing personal or business items where all of the following apply: (1) the storage areas are separated from each other by less than a 1-hour fire resistance rated barrier, (2) the owner of the facility does not have unrestricted access, and (3) the items being stored are concealed from view from outside the unit.

Townhouse. A single-family unit in a row of attached units (3 or more) separated by walls, between units, constructed as a Two Hour Rated (Class C) Fire Barrier Walls, separated by property lines, and with open space on at least two sides. Additionally, each unit of a townhouse shall be served by an exit directly to the exterior at grade level. When the specifications for fire rated assemblies as called for in the classification of TOWNHOUSE, ROWHOUSE, etc. are not met, then the occupancy shall be classified as a MULTI-FAMILY RESIDENTIAL or APARTMENT occupancy and shall meet all the specifications for that occupancy.

Vertical Platform Lift. A powered hoisting and lowering mechanism designed to transport mobility-impaired persons on a guided platform that travels vertically.

**PART – I; Chapter- 2**

**Paragraph: 2-1**
**Revise definition as follows:**

**One-And Two-Family Dwellings.** Includes buildings ~~in which each living unit~~ containing not more than two dwelling units in which each dwelling unit is occupied by members of a single family with ~~no~~ not more than three outsiders, if any, accommodated in rented rooms.

For the purposes of these Regulations, a one-and two family dwelling or a single family dwelling is defined as:

1. An individual, detached, stand alone dwelling unit, or;

~~2. When attached in units of not more than two, commonly referred to as a DUPLEX, the following criteria must be met:~~

~~(a) Separation walls between units shall be constructed of a two hour rated design wall beginning at the foundation and extending to the under side of the roof deck, effectively creating a two hour rated fire barrier wall, and/or shall have a one hour rated floor/ceiling assembly, completely separating the two units, and;~~

~~(b) Each unit shall be served by an exit directly to the exterior at grade level, or;~~

2. Attached units of not more than two, commonly referred to as a DUPLEX and separated by walls between units constructed as a Two Hour Rated (Class C) Fire Barrier Wall, or shall have a one hour rated floor/ ceiling assembly, completely separating the two units. Additionally each unit of a DUPLEX shall be served by an exit directly to the exterior at grade level, or;

~~3. When attached in units of three (3) or more, commonly referred to as TOWNHOUSE,~~

~~ROWHOUSE, ETC., the following criteria must be met:~~

~~(a) Separation walls between all units shall be constructed of a two hour rated design wall beginning at the foundation and extending to the under side of a flat roof deck, effectively creating a two hour rated fire barrier wall, completely separating each unit. A four foot fire rated assembly shall extend on each side of the two hour rated design wall at the roof deck, and;~~

~~(b) Each unit shall be served by an exit directly to the exterior at grade level.~~

~~(c) When the specifications for fire rated assemblies as called for in the classification of TOWNHOUSE, ROWHOUSE, ETC., are not met, then the occupancy shall be classified as a MULTI-FAMILY RESIDENTIAL OR APARTMENT and shall meet all of the specifications for that occupancy~~.

3. A TOWNHOUSE, as defined in these Regulations.

~~4. All rated fire barrier walls and all fire rated roof assemblies required under these definitions shall be listed. by a testing laboratory meeting the requirements of Part I, Chapter 5 of these Regulations.~~

**PART – I; Chapter- 5**

~~**5-3 Listing - Approval And Accreditation.**~~

~~**5-3.1*** Under this regulation listing, approval, and laboratory accreditation can be achieved as follows:~~

~~(a) Accreditation through the American Association for Laboratory Accreditation.~~

~~(b) Approval as a Nationally Recognized Testing Laboratory by the Federal Occupational Safety and Health Administration pursuant to criteria prescribed at 29 C.F.R. 1910.7 or any amendment to or substitution for these criteria.~~

~~**A-5-3.1.3** It is the express intent of this proposed change to provide for the expertise and necessary criteria for any testing laboratory to achieve an approved status within the Sate of Delaware. Accreditation through the American Association for Laboratory Accreditation provides that mechanism and removes the Office of the State Fire Marshal from the practice of accreditation that raises more concerns than it resolves.~~

~~**5-3.2** Underwriters Laboratory, Inc., Factory Mutual, Inc., and Canadian Standards Association are accepted under this regulation as nationally recognized testing laboratories~~.

**5-3 Listing, Approval, and Accreditation.** Under this regulation listing, approval, and laboratory accreditation can be achieved as follows:

**5-3.1 Listing**

5-3.1.1 Listing refers to equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

5-3.1.2 Underwriters Laboratory, Inc., Factory Mutual, Inc., and Canadian Standards Association are accepted under this regulation as nationally recognized testing laboratories.

5-3.2 **Accreditation**

5-3.2.1 *Accreditation through the American Association for Laboratory Accreditation

5-3.2.2 Accreditation through approval as a Nationally Recognized Testing Laboratory by the Federal Occupational Safety and Health Administration pursuant to criteria prescribed at 29 C.F.R. 1910.7 or any amendment to or substitution for these criteria.

**A-5-3.2.1** It is the express intent of this proposed change to provide for the expertise and necessary criteria for any testing laboratory to achieve an approved status within the ~~Sate~~ State of Delaware. Accreditation through the American Association for Laboratory Accreditation provides that mechanism and removes the Office of the State

Fire Marshal from the practice of accreditation that raises more concerns than it resolves.

The list of laboratories accredited by American Association for Laboratory Accreditation can be found through their website at www.a2la.org

**5-3.3 Approval**

5-3.3.1 Approved shall denote, "Acceptable to the State Fire Marshal"

5-3.3.2 It shall be unlawful for any person, directly or indirectly through an agent or otherwise to sell or offer for sale in the State of Delaware any electrical equipment, device or component or any fire protection or fire safety equipment or product, either new or used, unless listed and labeled or marked by a nationally recognized, third party, independent testing laboratory, such as, but not limited to Underwriters Laboratories or some other testing agency approved by the State Fire Marshal.

## PART I – ; ANNEX A
## Adopted NFPA Codes and 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[2,3] | 2006 | Uniform Fire Code |
| 10 | 2002 | Portable Fire Extinguishers |
| 11[1] | 2005 | Low-, Medium-, and High-Expansion Foam |
| ~~11A[1]~~ | ~~1999~~ | ~~Medium-, and High-Expansion Foam Systems~~ |
| 12[1] | 2005 | Carbon Dioxide Extinguishing Systems |
| 12A[1] | 2004 | Halon 1301 Fire Extinguishing Systems |
| 13[3] | 2002 | Installation of Sprinkler Systems |
| 13D[3] | 2002 | Installation of Sprinkler Systems in One- and Two- Family Dwellings and Manufactured Homes |
| 13R[3] | 2002 | Installation of Sprinkler Systems in Residential Occupancies Up To and Including Four Stories in Height |
| 14[1,3] | 2003 | Installation of Standpipe and Hose Systems |
| 15 | 2001 | Water Spray Fixed Systems for Fire Protection |
| 16[1] | 2003 | Installation of FoamWater Sprinkler and FoamWater Spray Systems |
| 17 | 2002 | Dry Chemical Extinguishing Systems |
| 17A | 2002 | Wet Chemical Extinguishing Systems |
| 18[1] | 2006 | Wetting Agents |
| 20[1] | 2003 | Installation of Stationary Pumps for Fire Protection |
| 22[1] | 2003 | Water Tanks for Private Fire Protection |

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| 24 | 2002 | Installation of Private Fire Service Mains and Their Appurtenances |
| 25 | 2002 | Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems |
| 30[1,3] | 2003 | Flammable and Combustible Liquids Code |
| 30A[1,3] | 2003 | Motor Fuel Dispensing Facilities and Repair Garages |
| 30B | 2002 | Manufacture and Storage of Aerosol Products |
| 31 | 2001 | Installation of Oil-Burning Equipment |
| 32[1] | 2004 | Drycleaning Plants |
| 33[1] | 2003 | Spray Application Using Flammable and Combustible Materials |
| 34[1] | 2003 | Dipping and Coating Processes Using Flammable or Combustible Liquids |
| 35[1] | 2005 | Manufacture of Organic Coatings |
| 36[1] | 2004 | Solvent Extraction Plants |
| 37 | 2002 | Installation and Use of Stationary Combustion Engines and Gas Turbines |
| 40 | 2001 | Storage and Handling of Cellulose Nitrate Film |
| 42 | 2002 | Storage of Pyroxylin Plastic |
| 45[1] | 2004 | Fire Protection for Laboratories Using Chemicals |
| ~~50[1]~~ | ~~2001~~ | ~~Standard for Bulk Oxygen Systems at Consumer Sites~~ |
| ~~50A[1]~~ | ~~1999~~ | ~~Standard for Gaseous Hydrogen Systems at Consumer Sites~~ |
| ~~50B[1]~~ | ~~1999~~ | ~~Standard for Liquefied Hydrogen Systems at Consumer Sites~~ |
| 51 | 2002 | Design and Installation of OxygenFuel Gas Systems for Welding, Cutting, and Allied Processes |
| 51A | 2001 | Acetylene Cylinder Charging Plants |
| 51B[1] | 2003 | Fire Prevention During Welding, Cutting, and other Hot Work |
| 52[1] | 2006 | Vehicular Fuel Systems |
| 54[1,3] | 2006 | National Fuel Gas |
| 55[1] | 2005 | Storage, Use, and Handling of Compressed Gases and Cryogenic Fluids in Portable and Stationary Containers, Cylinders and Tanks |
| ~~57[1]~~ | ~~2002~~ | ~~Standard for Liquefied Natural Gas (LNG) Vehicular Fuel Systems~~ |
| 58[1,3] | 2004 | Liquefied Petroleum Gas Code |
| 59[1] | 2004 | Utility LP-Gas Plant |
| 59A[1] | 2006 | Production, Storage and Handling of Liquefied Natural Gas (LNG) |
| 61 | 2002 | Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities |
| 68 | 2002 | Venting of Deflagrations |
| 69 | 2002 | Explosion Prevention Systems |
| 70[1,3] | 2005 | National Electrical Code |
| 72 | 2002 | National Fire Alarm Code |
| 73[1] | 2006 | Electrical Inspection Code for Existing Dwellings |
| 75[1] | 2003 | Protection of Information Technology Equipment |
| 76[1] | 2005 | Fire Protection for Telecommunications Facilities |
| 79 | 2002 | Electrical Standard for Industrial Machinery |
| 80 | 1999 | Fire Doors and Fire Windows |
| 82[1] | 2004 | Incinerators and Waste and Linen Handling Systems and |

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|---|---|---|
| | | Equipment |
| 86[1] | 2003 | Ovens and Furnaces |
| ~~86C~~ | ~~1999~~ | ~~Standard for Industrial Furnaces Using a Specialist Processing Atmosphere~~ |
| 88A | 2002 | Parking Structures |
| ~~88B~~ | ~~1997~~ | ~~Standard for Repair Garages~~ |
| 90A | 2002 | Installation of Air Conditioning and Ventilating Systems |
| 90B[1] | 2006 | Installation of Warm Air Heating and Air Conditioning Systems |
| 91[1] | 2004 | Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids |
| 92A[1] | 2006 | SmokeControl Systems Utilizing Barriers and Pressure Differences |
| 92B[1] | 2005 | Smoke Management Systems in Malls, Atria and Large Spaces |
| 96[1] | 2004 | Ventilation Control and Fire Protection of Commercial Cooking Operations |
| 99[1,3] | 2005 | Health Care Facilities |
| 101[1,3] | 2006 | Life Safety Code |
| 102 | 1995 | Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures |
| 110[1] | 2005 | Emergency and Standby Power Systems |
| 111[1] | 2005 | Stored Electrical Energy Emergency and Standby Power Systems |
| 120[1] | 2004 | Fire Prevention and Control in Coal Mines |
| 150 | 2000 | Fire Safety in Racetrack Stables |
| 170[1] | 2006 | Fire Safety and Emergency Symbols |
| 211[1] | 2003 | Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances |
| 214[1] | 2005 | WaterCooling Towers |
| 220[1] | 2006 | Types of Building Construction |
| 221[1] | 2006 | High Challenge Fire Walls, Fire Walls, and Fire Barrier Walls |
| ~~230~~ | ~~1999~~ | ~~Fire Protection of Storage~~ |
| 232 | 2000 | Protection of Records |
| 241[1] | 2004 | Safeguarding Construction, Alteration, and Demolition Operations |
| 302[1] | 2004 | Fire Protection Standard for Pleasure and Commercial Motor Craft |
| 303[1] | 2006 | Fire Protection Standard for Marinas and Boatyards |
| 306[1] | 2003 | Control of Gas Hazards on Vessels |
| 307[1] | 2006 | Construction and Fire Protection of Marine Terminals, Piers and Wharves |
| 312[1] | 2006 | Fire Protection of Vessels During Construction, Conversion, Repair and Layup |
| 326[1] | 2005 | Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair |
| ~~395[3]~~ | ~~1993~~ | ~~Standard for Storage of Flammable and Combustible Liquids on Farms and Isolated Sites~~ |
| 407 | 2001 | Aircraft Fuel Servicing |
| 408[1] | 2004 | Aircraft Hand Portable Fire Extinguishers |
| 409[1] | 2004 | Aircraft Hangars |

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| 410[1] | 2004 | Aircraft Maintenance |
| 415 | 2002 | Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways |
| 418 | 2001 | Heliports |
| 430[1] | 2004 | Storage of Liquid and Solid Oxidizers |
| 434 | 2002 | Storage of Pesticides |
| 484[1] | 2006 | Combustible Metals |
| 490 | 2002 | Storage of Ammonium Nitrate |
| 495[1] | 2006 | Explosive Materials |
| 496[1] | 2003 | Purged and Pressurized Enclosures for Electrical Equipment |
| 498[1] | 2006 | Safe Havens and Interchange Lots for Vehicles Transporting Explosives |
| 501[1] | 2005 | Manufactured Housing |
| 501A[1] | 2005 | Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities |
| 502[1] | 2004 | Road Tunnels, Bridges, and Other Limited Access Highways |
| 505[1] | 2006 | Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations |
| 560 | 2002 | Storage, Handling, and Use of Ethylene Oxide for Sterilization and Fumigation |
| 654[1] | 2006 | Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids |
| 655 | 2001 | Prevention of Sulfur Fires and Explosions |
| 664 | 2002 | Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities |
| 703[1] | 2006 | Fire Retardant-Treated Wood and FireRetardant Coatings for Building Materials |
| 704 | 2001 | Identification of the Hazards of Materials for Emergency Response |
| 750[1] | 2003 | Water Mist Fire Protection Systems |
| 780[1] | 2004 | Installation of Lightning Protection Systems |
| 804 | 2001 | Fire Protection for Advanced Light Water Reactor Electric Generating Plants |
| 909[1] | 2005 | Protection of Cultural Resources Properties – Museums, Libraries, and Places of Worship |
| 1122 | 2002 | Model Rocketry |
| 1123[1] | 2006 | Fireworks Display |
| 1124[1] | 2006 | Manufacturer, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles |
| 1125 | 2001 | Manufacture of Model Rocket and High Power Rocket Motors |
| 1126[1] | 2006 | Use of Pyrotechnics before a Proximate Audience |
| 1127 | 2002 | High Power Rocketry |
| 1142 | 2001 | Water Supplies for Suburban and Rural Fire Fighting |
| 1221 | 2002 | Installation, Maintenance, and Use of Emergency Services Communication s Systems |
| 1961 | 2002 | Fire Hose |
| 1962[1] | 2003 | Inspection, Care, and Use of Fire Hose, Couplings, and Nozzles and the Service Testing of Fire Hose |

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| 1963[1] | 2003 | Fire Hose Connections |
| 2001[1] | 2004 | Clean Agent Fire Extinguishing Systems |

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

**Part I Part I**
**Annex A**
**Adopted NFPA Codes and 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.

| NFPA NO. | DATE OF PUBLICATION | TITLE |
|---|---|---|
| 51A | 2001 | Acetylene Cylinder Charging Plants |
| 407 | 2001 | Aircraft Fuel Servicing |
| 408[1] | 2004 | Aircraft Hand Portable Fire Extinguishers |
| 409[1] | 2004 | Aircraft Hangars |
| 410[1] | 2004 | Aircraft Maintenance |
| 415 | 2002 | Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways |
| ~~50[1]~~ | ~~2001~~ | ~~Bulk Oxygen Systems at Consumer Sites~~ |
| 12[1] | 2005 | Carbon Dioxide Extinguishing Systems |
| 211[1] | 2003 | Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances |
| 2001[1] | 2004 | Clean Agent Fire Extinguishing Systems |
| 484[1] | 2006 | Combustible Metals |
| 307[1] | 2006 | Construction and Fire Protection of Marine Terminals, Piers and Wharves |
| 306[1] | 2003 | Control of Gas Hazards on Vessels |
| 51 | 2002 | Design and Installation of OxygenFuel Gas Systems for Welding, Cutting, and Allied Processes |
| 34[1] | 2003 | Dipping and Coating Processes Using Flammable or Combustible Liquids |
| 17 | 2002 | Dry Chemical Extinguishing Systems |
| 32[1] | 2004 | Drycleaning Plants |
| 73[1] | 2006 | Electrical Inspection Code for Existing Dwellings |
| 79 | 2002 | Electrical Standard for Industrial Machinery |
| 110[1] | 2005 | Emergency and Standby Power Systems |
| 91[1] | 2004 | Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Noncombustible Particulate Solids |

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| 495[1] | 2006 | Explosive Materials |
| 69 | 2002 | Explosion Prevention Systems |
| 80 | 1999 | Fire Doors and Fire Windows |
| 1961 | 2002 | Fire Hose |
| 1963[1] | 2003 | Fire Hose Connections |
| 1123[1] | 2006 | Fireworks Display |
| 120[1] | 2004 | Fire Prevention and Control in Coal Mines |
| 51B[1] | 2003 | Fire Prevention During Welding, Cutting, and other Hot Work |
| 804 | 2001 | Fire Protection for Advanced Light Water Reactor Electric Generating Plants |
| 45[1] | 2004 | Fire Protection for Laboratories Using Chemicals |
| 303[1] | 2006 | Fire Protection Standard for Marinas and Boatyards |
| 302[1] | 2004 | Fire Protection Standard for Pleasure and Commercial Motor Craft |
| ~~230~~ | ~~1999~~ | ~~Fire Protection of Storage~~ |
| 76[1] | 2005 | Fire Protection for Telecommunications Facilities |
| 312[1] | 2006 | Fire Protection of Vessels During Construction, Conversion, Repair and Layup |
| 703[1] | 2006 | Fire Retardant-Treated Wood and FireRetardant Coatings for Building Materials |
| 501A[1] | 2005 | Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities |
| 150 | 2000 | Fire Safety in Racetrack Stables |
| 505[1] | 2006 | Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance, and Operations |
| 30[1,3] | 2003 | Flammable and Combustible Liquids Code |
| ~~50A[1]~~ | ~~1999~~ | ~~Gaseous Hydrogen Systems at Consumer Sites~~ |
| 102 | 1995 | Grandstands, Folding and Telescopic Seating, Tents, and Membrane Structures |
| 99[1,3] | 2005 | Health Care Facilities |
| 418 | 2001 | Heliports |
| 12A[1] | 2004 | Halon 1301 Fire Extinguishing Systems |
| 221[1] | 2006 | High Challenge Fire Walls, Fire Walls, and Fire Barrier Walls |
| 1127 | 2002 | High Power Rocketry |
| 704 | 2001 | Identification of the Hazards of Materials for Emergency Response |
| 82[1] | 2004 | Incinerators and Waste and Linen Handling Systems and Equipment |
| 86C | 1999 | Industrial Furnaces Using a Specialist Processing Atmosphere |
| 1962[1] | 2003 | Inspection, Care, and Use of Fire Hose, Couplings, and Nozzles and the Service Testing of Fire Hose |
| 25 | 2002 | Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems |
| 90A | 2002 | Installation of Air Conditioning and Ventilating Systems |
| 16[1] | 2003 | Installation of FoamWater Sprinkler and FoamWater Spray Systems |
| 780[1] | 2004 | Installation of Lightning Protection Systems |
| 1221 | 2002 | Installation, Maintenance, and Use of Emergency Services |

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|---|---|---|
| | | Communication s Systems |
| 31 | 2001 | Installation of Oil-Burning Equipment |
| 24 | 2002 | Installation of Private Fire Service Mains and Their Appurtenances |
| 13[3] | 2002 | Installation of Sprinkler Systems |
| 13D[3] | 2002 | Installation of Sprinkler Systems in One- and Two- Family Dwellings and Manufactured Homes |
| 13R[3] | 2002 | Installation of Sprinkler Systems in Residential Occupancies Up To and Including Four Stories in Height |
| 14[1,3] | 2003 | Installation of Standpipe and Hose Systems |
| 20[1] | 2003 | Installation of Stationary Pumps for Fire Protection |
| 37 | 2002 | Installation and Use of Stationary Combustion Engines and Gas Turbines |
| 90B[1] | 2006 | Installation of Warm Air Heating and Air Conditioning Systems |
| 101[1,3] | 2006 | Life Safety Code |
| ~~50B[1]~~ | ~~1999~~ | ~~Liquefied Hydrogen Systems at Consumer Sites~~ |
| ~~57[1]~~ | ~~2002~~ | ~~Liquefied Natural Gas (LNG) Vehicular Fuel Systems~~ |
| 58[1,3] | 2004 | Liquefied Petroleum Gas Code |
| 11[1] | 2005 | Low-, Medium-, and High-Expansion Foam |
| 501[1] | 2005 | Manufactured Housing |
| 1125 | 2001 | Manufacture of Model Rocket and High Power Rocket Motors |
| 35[1] | 2005 | Manufacture of Organic Coatings |
| 30B | 2002 | Manufacture and Storage of Aerosol Products |
| 1124[1] | 2006 | Manufacturer, Transportation, Storage, and Retail Sales of Fireworks and Pyrotechnic Articles |
| ~~11A[1]~~ | ~~1999~~ | ~~Medium-, and High-Expansion Foam Systems~~ |
| 1122 | 2002 | Model Rocketry |
| 30A[1,3] | 2003 | Motor Fuel Dispensing Facilities and Repair Garages |
| 70[1,3] | 2005 | National Electrical Code |
| 72 | 2002 | National Fire Alarm Code |
| 54[1,3] | 2006 | National Fuel Gas |
| 86[1] | 2003 | Ovens and Furnaces |
| 88A | 2002 | Parking Structures |
| 10 | 2002 | Portable Fire Extinguishers |
| 654[1] | 2006 | Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids |
| 664 | 2002 | Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities |
| 61 | 2002 | Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities |
| 655 | 2001 | Prevention of Sulfur Fires and Explosions |
| 59A[1] | 2006 | Production, Storage and Handling of Liquefied Natural Gas (LNG) |
| 909[1] | 2005 | Protection of Cultural Resources Properties – Museums, Libraries, and Places of Worship |
| 75[1] | 2003 | Protection of Information Technology Equipment |
| 232 | 2000 | Protection of Records |
| 496[1] | 2003 | Purged and Pressurized Enclosures for Electrical Equipment |
| ~~88B~~ | ~~1997~~ | ~~Repair Garages~~ |

| | | |
|---|---|---|
| 502[1] | 2004 | Road Tunnels, Bridges, and Other Limited Access Highways |
| 498[1] | 2006 | Safe Havens and Interchange Lots for Vehicles Transporting Explosives |
| 241[1] | 2004 | Safeguarding Construction, Alteration, and Demolition Operations |
| 326[1] | 2005 | Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair |
| 92A[1] | 2006 | SmokeControl Systems Utilizing Barriers and Pressure Differences |
| 92B[1] | 2005 | Smoke Management Systems in Malls, Atria and Large Spaces |
| 36[1] | 2004 | Solvent Extraction Plants |
| 33[1] | 2003 | Spray Application Using Flammable and Combustible Materials |
| 40 | 2001 | Storage and Handling of Cellulose Nitrate Film |
| 560 | 2002 | Storage, Handling, and Use of Ethylene Oxide for Sterilization and Fumigation |
| 490 | 2002 | Storage of Ammonium Nitrate |
| ~~395[3]~~ | ~~1993~~ | ~~Storage of Flammable and Combustible Liquids on Farms and Isolated Sites~~ |
| 430[1] | 2004 | Storage of Liquid and Solid Oxidizers |
| 434 | 2002 | Storage of Pesticides |
| 42 | 2002 | Storage of Pyroxylin Plastic |
| 55[1] | 2005 | Storage, Use, and Handling of Compressed Gases and Cryogenic Fluids in Portable and Stationary Containers, Cylinders and Tanks |
| 111[1] | 2005 | Stored Electrical Energy Emergency and Standby Power Systems |
| 220[1] | 2006 | Types of Building Construction |
| 1[2,3] | 2006 | Uniform Fire Code |
| 1126[1] | 2006 | Use of Pyrotechnics before a Proximate Audience |
| 59[1] | 2004 | Utility LP-Gas Plant |
| 52[1] | 2006 | Vehicular Fuel Systems |
| 96[1] | 2004 | Ventilation Control and Fire Protection of Commercial Cooking Operations |
| 68 | 2002 | Venting of Deflagrations |
| 214[1] | 2005 | WaterCooling Towers |
| 750[1] | 2003 | Water Mist Fire Protection Systems |
| 15 | 2001 | Water Spray Fixed Systems for Fire Protection |
| 1142 | 2001 | Water Supplies for Suburban and Rural Fire Fighting |
| 22[1] | 2003 | Water Tanks for Private Fire Protection |
| 17A | 2002 | Wet Chemical Extinguishing Systems |
| 18[1] | 2006 | Wetting Agents |

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

**PART – I ; Annex B**

**MODIFY NFPA 1, 2006, Uniform Fire Code**

as noted in Annex C of these Regulations**.**

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

**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.

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

**8-14 Special Situations**
**AMEND *§*~~1~~8-[1]4.7 by adding *§*~~1~~8-[1]4.7.1.1 as follows:**
~~1~~8-[1]4.7.1.1 Sprinklers shall be required on porches, balconies, corridors, and stairs regardless of whether or not they are open to outside air.

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

**6.8 Location of Sprinklers**
**AMEND *§*6.8.4, and *§*6.8.6 to read as follows:**

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

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

**MODIFY NFPA 14, ~~2000~~ 2003, Standard for the Installation of Standpipe, Private Hydrant and Hose Systems.**

**Chapter ~~4~~ 6, Installation Requirements.**

**~~4~~3 6.3 Fire Department Connections.**

**~~4~~3.5 6.3.5 Location and Identification.**

**AMEND *§*~~4~~3.5.2 6.3.5.2 by deleting the existing *§*~~4~~3.5.2 6.3.5.2 and inserting a new section to read as follows:**

**~~4~~3.5.2 6.3.5.2** 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 ~~5~~ 7, Design.**
**~~5~~ 7.3 Location of Hose Connections.**
**~~5-3.2~~ 7.3.2Class I Systems**

**AMEND §~~5~~3.2 (a) 7.3.2 by deleting the ~~Exception~~ 7.3.2.1**

**Chapter 7, Design.**
**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, ~~2000~~ 2003 Flammable And Combustible Liquids Code.**

**Chapter ~~2~~ 4, Tank Storage.**
**~~2-3~~ 4.3 Installation of Tank and Tank Appurtenances.**
**~~2-3.2.1~~ 4.3.2.1Location with Respect to Property Lines, Public Ways, and Important Buildings on the Same Property.**

**AMEND §~~2-3.2.1~~ 4.3.2.1, by adding a new Exception to Subsection ~~2-3.2.1.1~~ 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, ~~2000~~ 2003, 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.**

**RENUMBER Subsection 9.2.3.3 to 9.2.3.4 and insert a new Subsection 9.2.3.3 to read as follows:**

**9.2.3.3** 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**

**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 Operating Requirements.**
**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.

**MODIFY NFPA 54, ~~2002~~ 2006, National Fuel Gas Code.**

**Chapter ~~9~~ 10, Installation of Specific Equipment.**
~~**9.23**~~ **10.23** Room Heaters.

**AMEND ~~§9.23.1~~ 10.23.1, Prohibited Installations, by deleting the two exceptions, thereby specifically prohibiting the installation of unvented fuel fired room heaters in bathrooms or bedrooms, to read as follows:**

~~**9.23.1**~~ **10.23.1 Prohibited Installations.** Unvented room heaters shall not be installed in bathrooms and bedrooms.

**MODIFY NFPA 58, ~~2001~~ 2004, Liquefied Petroleum Gases Code.**

**Chapter ~~1~~ 4, General ~~Provisions~~ Requirements.**
~~**1.4**~~ **4.3 Notification Of Installations.**

**AMEND ~~§1.4.1~~ 4.3.1** Stationary Installations, by deleting the existing section and inserting two new subsections to read as follows:
~~**1.4.1.1***~~ **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.1.4.1.1**~~ **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.

~~**1.4.1.2***~~ **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.1.4.1.2**~~ **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 ~~1.4.1 and 1.4.2~~ 4.3.1.1. and 4.3.1.2: One- and Two-Family Dwellings are not required to comply with these sections.

**Chapter ~~3~~ 6, Installation of LP-Gas Systems.**
**~~3.10~~ 6.23 Fire Protection.**

**ADD New §~~3.10.4~~ 6.23.7:**

**~~3.10.4~~ 6.23.7 Fire Protection at Bulk Plants.**

**~~3.10.4.1~~ 6.23.7.1 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: §~~3~~.10.4 6.23.7 shall not apply to those facilities that fall within the definition of "REMOTE" with respect to location, as defined in §~~3.10.4.2~~ 6.23.7.2. Under this exception, the requirements of §~~3.10.4.5~~ 6.23.7.5, Water Supply for Fire Protection, are retained and required.*

**~~3.10.4.2~~ 6.23.7.2 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.

**~~3.10.4.3*~~ 6.23.7.3*** 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 (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 (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 Part I, 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.3.10.4.3**~~ **A.6.23.7.3** **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.

~~**3.10.4.4**~~ **6.23.7.4** No persons, other than the plant management or plant employees, shall have access to any bulk LP-Gas storage facility.

~~**3.10.4.5**~~ **6.23.7.5** Water Supply For Fire Protection. Not withstanding ~~the~~ other provisions of ~~Part II, Chapter 6 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 ~~3-10.4.3~~ 6.23.7.3 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.

~~**3.10.4.6**~~ **6.23.7.6** **Fire Department Chief Officer.**

~~**3.10.4.6.1**~~ **6.23.7.6.1** 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.

~~**3.10.4.6.2**~~ **6.23.7.6.2** Within ten working days of the Fire Department Chief Officer having received the plans and specifications as identified in §~~3.10.4.6.1~~ 6.23.7.6.1 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).

~~**3.10.4.6.3**~~ **6.23.7.6.3** If the Fire Department Chief Officer does not respond within ten working days as required in ~~3.10.4.6.2~~ 6.23.7.6.2 of this Regulation, the Office of State Fire Marshal will incorporate the necessary fire protection features consistent with generally accepted fire protection practices.

**Chapter ~~4~~ 7, LP-Gas Liquid Transfer.**
**~~4.2~~ 7.2 Operational Safety.**
**~~4.2.2~~ 7.2.2 ~~Containers To Be Filled Or Evacuated~~ Filling and Evacuating Containers.**

**AMEND §~~4.2.2.1~~ 7.2.2.1 by deleting the existing §~~4.2.2.1~~ 7.2.2.1 and inserting a new §~~4.2.2.1~~ 7.2.2.1 to read as follows:**

~~**4.2.2.1***~~ **7.2.2.1*** Containers shall be filled only by the owner or upon the owner's authorization.

~~**A.4.2.2.1**~~ **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 ~~5~~ 8, Storage of Portable Containers Awaiting Use, Resale, or Exchange.**
**~~5.4.2~~ 8.4.2 Protection of Containers.**

**AMEND §~~5.4.2.2~~ 8.4.2.2 by deleting §~~5.4.2.2~~ 8.4.2.2 and inserting a new §~~5.4.2.2~~ 8.4.2.2 to read as follows:**

~~**5.4.2.2***~~ **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.5.4.2.2**~~ **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 58, 2004, Liquefied Petroleum Gases Code.**

**Chapter 5, LP Gas Equipment and Appliances.**
**5.18 Appliances.**
**AMEND §5.18.1, by adding a subsection to read as follows:**

5.18.1.1 Patio heaters shall be listed and for outdoor use only.

A-5.18.1.1 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 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 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 Exception 1: Typically, most deck/patios will have three (3) exterior sides and one (1) side adjacent to the building.

5.18.1.3 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

**MODIFY NFPA 70, ~~2002~~ 2005, 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 Unit Bedrooms. ~~All branch circuits that supply 125-volt, single-phase, 15- and 20-ampere outlets installed in dwelling unit bedrooms shall be protected by an arc-fault circuit interrupter listed to provide protection of the entire branch circuit~~. All 120-volt, single phase, 15- and 20-ampere branch circuits supplying outlets installed in dwelling unit bedrooms 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)** ~~Dwelling Unit Bedrooms. All branch circuits that supply 125-volt, single-phase, 15- and 20-ampere outlets installed in dwelling unit bedrooms shall be protected by an arc-fault circuit interrupter listed to provide protection of the entire branch circuit.~~ Bedrooms of Mobile Homes and Manufactured Homes. All branch circuits that supply 125-

volt, single-phase, 15- and 20-ampere outlets installed in bedrooms of mobile homes and manufactured homes shall be protected by arc-fault circuit interrupter(s). 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, ~~2002~~ 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 §4.4.2.2.2.2, Life Safety Branch, by adding a new subsection to read as follows:**

**4.4.2.2.2.2(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, ~~2000~~ 2006, 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 18, New Health Care Occupancies**~~
~~**18.3.2 Protection from Hazards.**~~

~~**AMEND §18.3.2, by adding §18.3.2.8, to read as follows:**~~

~~**18.3.2.8** Dispensers containing Alcohol Based Waterless Hand Sanitizing Liquid shall be prohibited from being located in corridors or any area open to a required exit or corridor. Dispensers containing Alcohol Based Waterless Hand Sanitizing Liquid shall be isolated from possible ignition sources, such as, but not limited to, open flame, electrical equipment, switches or receptacle outlets.~~

**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.**
**~~26.3.3~~ 26.3.4 Detection, Alarm, And Communication Systems.**

**AMEND §~~26.3.3~~ 26.3.4, Detection Alarm, And Communication Systems, by adding a new Subsection to read as follows:**

**~~26.3.3.4~~ 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 two exceptions~~, 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 30.3.4.4~~ 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 §~~30.3.5.1~~ 30.3.5.4, by revising §~~30.3.5.1~~ 30.3.5.4 to read as follows:**

~~Exception No. 1:~~ 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 $ft^2$ (1.1 $m^2$) 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, Emergency Forces Notification, to read as follows:**

**32.2.3.4.4 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, ~~Fire Department Notification~~ 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 395, 1993, Standard for the Storage of Flammable and Combustible Liquids on Farms and Isolated Construction Projects.~~**

**~~Chapter 1, General.~~**
**~~1-1 Scope.~~**

**~~AMEND §1-1.1 by deleting the existing §1-1.1(a) and inserting a new §1-1.1(a) to read as follows:~~**

**~~1-1.1~~** ~~(a) In rural areas;~~

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

**Chapter 13, Farms and Remote Sites**
**13.1 Scope**

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

(1) in rural areas

**PART I; Annex C**
**ADD an ANNEX C to read as follows:**

**Modifications to NFPA 1, 2006, Uniform Fire Code**

NFPA 1, titled Uniform Fire Code is adopted in part and/or as modified by these Regulations. The modification or exclusion of specific sections of this Code within the Regulations is, by no means, an indication of those sections being insignificant. On the contrary, these Regulations are further reinforced by the adoption of the Uniform Fire Code. In order to unify Uniform Fire Code with the Regulations and in order to address the specific goals and needs of the State of Delaware, NFPA 1, entitled Uniform Fire Code is adopted by reference with the following modifications.

When there is a conflict with the Codes and Standards of the National Fire Protection Association, as listed in these Regulations, and any Regulation promulgated specifically by the State Fire Prevention Commission, and such conflict has not been identified in Annex B of these Regulations as an addition, deletion, or change to those Codes and Standards, then the Regulation, as promulgated by the State Fire Prevention Commission, shall be the applicable standard.

**Chapter 1 Administration**

DELETE entire Chapter 1

**Chapter 2 Referenced Publications**

DELETE the following documents from the list.

- NFPA 1141, Standard for Fire Protection in Planned Building Groups
- NFPA 1144, Standard for Protection of Life and Property from Wildfire
- NFPA 1600, Standard on Disaster/Emergency Management and Business Continuity Programs

**Chapter 3 Definitions**

DELETE all Definitions in the Uniform Fire Code.

**Modify Chapter 10 – General Fire Safety as noted:**

**Chapter 10 General Fire Safety**

10.1.1 Every new and existing building or structure shall be arranged, equipped, maintained, and operated in accordance with this Code so as to provide a reasonable level of life safety, property protection, and public welfare from the actual and potential hazards created by fire, explosion, and other hazardous conditions.

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

**Chapter 10 General Fire Safety**
**Section 10.4 Maintenance, Inspection, and Testing.**

10-4.3 Existing life safety features obvious to the public, if not required by the Code, shall be either maintained or removed.

**Chapter 10 General Fire Safety**
**Section 10.7 Reporting of Fires and Other Emergencies.**

10.7.1 Notifying the fire department of fires shall comply with the requirements of the *Delaware State Fire Prevention Regulations.*

DELETE 10.7.1.1 through 10.7.1.4 and 10.7.2.

**Chapter 10 General Fire Safety**
**Section 10.9 Emergencies Plans.**

DELETE 10.9.2 and 10.9.3.

**Chapter 10 General Fire Safety**
**10.11 Open Fires, Incinerators, and Commercial Fireplaces.**
10.11.1 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

10.11.5* 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 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.

**Chapter 10 General Fire Safety**
DELETE 10.12.1 and 10.12.1.1 through 10.12.3

**Chapter 10 General Fire Safety**
**Section 10.14 Combustible Vegetation**
DELETE section 10.14.1 and Table 10.14.1

**Chapter 10 General Fire Safety**
**Section 10.15 Special Outdoor Events, Carnivals, and Fairs.**
10.15.1 Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations.*

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.

**Chapter 10 General Fire Safety**
**10.15.11 Crop Maze.**
10.15.11.1 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

**Chapter 10 General Fire Safety**
**10.15.11.13 Fireworks.**
10.15.11.13.2 The use of display fireworks shall comply with the *Delaware State Fire Prevention Regulations* in addition to the requirements of 10.15.11.13.

**Chapter 10 General Fire Safety**
**10.17 Parade Floats.**
10.17.1 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

**Chapter 10 General Fire Safety**
**10.19* Combustible Materials.**
10.19.2 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

**Chapter 13 Fire Protection Systems**
AMEND 13.2.2.1 to read,
Where required by Part II, Chapter 4-2 of the *Delaware State Fire Prevention Regulations*, this code, or the referenced codes and standards in Chapter 2, standpipe systems shall be installed in accordance 13.2.1.

AMEND 13.2.3.3 to read,
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 Part III, Chapter 1-4 of the *Delaware State Fire Prevention Regulations*.

**Section 13.3 Automatic Sprinkler**
AMEND 13.3.1.1 to read,
Where required by Part II, Chapter 4-1 of the *Delaware State Fire Prevention Regulations*, this code, or the referenced codes and standards in Chapter 2, automatic sprinkler systems shall be installed in accordance 13.3.1".

AMEND 13.3.2.3 to read,
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,
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 Part III, Chapter 1-4 of the *Delaware State Fire Prevention Regulations*.

**Section 13.3 Automatic Sprinkler**
DELETE 13.3.4 Impairments

**Chapter 15 Planned Building Groups**
DELETE entire Chapter 15

**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**
20.1.1.1 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

20.1.4.2.4.1 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

20.1.4.3 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*.

20.1.4.3.1 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

20.1.4.5.1 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

**Chapter 21 Airports and Heliports**

21.2.2.1 Permits. Permits, where required, shall comply 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 and the *Delaware State Fire Prevention Regulations*.

DELETE 22.9.4

**Chapter 23 Cleanrooms**

23.3 Permits.

Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

**Chapter 24 Drycleaning**

24.2 Permits.

Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

**Chapter 25 Grandstands and Bleachers, Folding and Telescopic Seating, Tents, and Membrane Structures**

25.1.2 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

25.1.5.5 Fireworks or unauthorized open flames shall be prohibited in any tent or temporary membrane structure.
DELETE the Exception:

**Chapter 30 Motor Fuel Dispensing Facilities and Repair Garages**

30.1.1.3 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

**Chapter 33 Outside Storage of Tires**

DELETE entire Chapter 33

**Chapter 34 General Storage**

34.1.2 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

**Chapter 40 Dust Explosion Prevention**

40.2 Permits.

Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

**Chapter 41 Hot Work Operations**
41.1.5 Permits.
41.1.5.1 Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

**Chapter 42 Refueling**
42.4.1.2 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

42.5.2.2.4 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

42.5.3.1 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations.*

**Chapter 44 Solvent Extraction**
44.3 Permits.
Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

**Chapter 45 Combustible Fibers**
45.1.3 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

**Chapter 50 Commercial Cooking Equipment**
50.4.2 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations.*

**Chapter 51 Industrial Ovens and Furnaces**
51.1.2 Permits.
51.1.2.1 Permits, where required, shall comply the *Delaware State Fire Prevention Regulations*.

**Chapter 52 Stationary Lead–Acid Battery Systems**
52.2 Permits.
52.2.1 Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations.*

DELETE 52.2.2.

**Chapter 53 Mechanical Refrigeration**
53.4 Permits and Plans.
53.4.1 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

DELETE 53.4.2

**Chapter 60 Hazardous Material**
DELETE entire Chapter 60

**Chapter 61 Aerosol Products**
61.1.2 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

**Chapter 63 Compressed Gases and Cryogenic Fluids**
63.1.2 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

**Chapter 66 Flammable and Combustible Liquids**
66.1.5 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

**Chapter 64 Corrosive Solids and Liquids**
DELETE entire Chapter 64

**Chapter 65 Explosives, Fireworks, and Model Rocketry**
DELETE entire Chapter 65

**Chapter 67 Flammable Solids**
DELETE entire Chapter 67

**Chapter 68 Toxic Solids and Liquids**
DELETE entire Chapter 68

**Chapter 69 Liquefied Petroleum Gases and Liquefied Natural Gases**
69.1.2 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations*.

**Chapter 70 Oxidizers and Organic Peroxides**
70.1.2 Permits. Permits, where required, shall comply with the *Delaware State Fire Prevention Regulations.*

**Chapter 71 Pyrophoric Solids and Liquids**
DELETE entire Chapter 71

**Chapter 72 Unstable Solids and Liquids**
DELETE entire Chapter 72

**Chapter 73 Water Reactive Solids and Liquids**
DELETE entire Chapter 73

**PART II; Chapter 2**

**Add Section 2-4.2**
2-4.2 The Two-Hour Rated Fire Barrier Wall for use in Duplex, Townhouse, Rowhouse, etc. shall consist of a listed assembly extending from the foundation tight to the underside of the smooth surface of the roof deck. The roof decking, extending four (4) feet to each side of the Two Hour Wall assembly, shall be fire retardant or fire treated lumber or a non combustible material.

**PART II; Chapter 3 (Special Fire Safety Provisions for Physically Handicapped People)**

**3-3 Inclined Wheel Chair Lifts Permitted.**
**3-3.1 Location.**

~~**3-1.1.2**~~ **3-3.1.2** For each floor of a building to be served with an inclined wheelchair lift, only one of the two required means of egress as specified in §3-3.1.1(b) of these Regulations, may have an inclined wheelchair lift installed.

**PART II; Chapter 2**

**ADD a new section 3-4 as follows:**

**3-4 Vertical Platform Lifts Permitted.**
**3-4.1 Location.**

**3-4.1.1** A single vertical platform lift may be installed in Educational occupancies meeting all of the following criteria:

(a) Where permitted, the vertical platform lift shall serve only two (2) floors; the level of exit discharge and either a level above or a level below the level of exit discharge of any building, and;

(b) There are at least two mean of egress from each floor of the building, that are in compliance with the applicable provisions of the *State Fire Prevention Regulations*, and;

(c) The building equipped with the vertical platform lift shall be protected with an automatic sprinkler system or an automatic smoke detection and fire alarm signaling system in accordance with the National Fire

Alarm Code, NFPA 72, and;

(d) Where an automatic smoke detection and fire alarm signaling system is provided, there shall be an interface of the controls for the vertical platform lift and the fire alarm signaling system to have the vertical platform lift return to the level of exit discharge, and remain there, if the lift happens to be in use when the fire alarm signaling system is activated, and;

(e) The vertical platform lift shall be provided with an auxiliary power source to ensure operation of the lift in the event of a loss of building power, and;

(f) The vertical platform lift shall be provided with controls that will permit the fire department to control the movement of the lift, and;

(g) Only one installation shall be permitted in a building.

**3-4.1.2** The installation of the vertical platform shall not interfere, obstruct or otherwise impede egress capacity of any of the required means of egress.

**PART II; Chapter 4**

**AMEND Part II, Chapter 4 as follows:**

**4-1 Automatic Sprinkler Systems.**

**4-1.1 Installation Required.** Automatic ~~fire suppression~~ 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 Part I, Annex A of these Regulations as well as the following:

**ADD a Subsection I to Part II, Chapter 4, Section 4-1.1 to read as follows:**

I. 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.

**PART II; Chapter 4**

**ADD to Part II, Chapter 4 as follows:**

**4-.2 Standpipes.**

4-2.3 Floor Level Identification.

4-2.3.1 A sign shall be provided at each landing, in all interior stairways, designating the floor level.

**PART II; Chapter 5**

**AMEND Part II, Chapter 5 (High Rise and Large Area Buildings) as follows:**

**5-1 General High Rise Fire Protection Features Required.**

**5-1.1 ~~Automatic Sprinkler Systems Required.~~ (Reserved)**

~~**5-1.1.1** Every building over forty feet in height shall be protected by a complete automatic sprinkler system installed in accordance with the applicable codes and standards listed in Part I, Annex A of these Regulations.~~

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~~**5-1.2 Floor Level Identification.**~~

~~5-1.2.1 A sign shall be provided at each landing, in all interior stairways, designating the floor level.~~

**5-2 Requirements For Buildings Over Fifty Feet or Five Stories In Height.**

**5-2.1 Central Control Station.**

**5-2.1.1** 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.

**5-2.2 Alarm And Emergency Communication Systems.**
**5-2.2.1** 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.

**5-2.4 Fire Department Communication System.**
**5-2.4.1** A two way fire department communication system in accordance with the National Fire Alarm Code (NFPA 72) shall be provided for fire department use. ~~It shall operate between the central control station and every elevator, elevator lobby, and entry into an enclosed exit stairway~~.

**5-2.6 Elevators.**
5-2.6.1 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.

**5-2.7 Mechanical Smoke Control.**
**5-2.7.1** 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.

**5-2.8 Standby Power, Light, and Emergency Systems.**
**5-2.8.1** In every high rise building in excess of fifty feet or five stories in height an emergency power supply shall be installed.

**PART II; Chapter 6**

**AMEND Part II, Chapter 6 as follows:**

**6-5 Fire Hydrants.**
**6-5.1 Spacing and Location.**

**6-5.1.1** Hydrant spacing as shown in the Fire Flow Tables shall be used as a general rule. Hydrants shall be located at the direction of the State Fire Marshal so as to minimize friction in fire hose. All hydrant spacing shall be located along available roads or at the direction of the State Fire Marshal. This measurement shall be calculated by way of accessible thoroughfare(s) from the building to be protected to the hydrant and may not necessarily be a radius.

**6-5.1.2** Hydrants shall be provided in such a manner that all fire department connections and/or standpipe connections shall be within 300' of a hydrant and shall meet the provisions of the applicable NFPA Regulations as adopted and/or modified by these Regulations. This measurement shall be calculated by way of accessible thoroughfare(s) from the proposed fire department connection to the hydrant and may not necessarily be a radius.

**PART II; Chapter 6**

**AMEND Part II, Chapter 6 Fire Flow Table 2 as follows:**

**Fire Flow Table 2**

The requirements of Fire Flow Table 2 apply to areas where there is a public, private, or central water system.

| **Occupancy** | **Maximum Aggregate Gross Square Footage** | **Internal Fire Separation** | **Flow Required** | **Hydrant Spacing*** |
|---|---|---|---|---|
| One- and Two-Family Detached Dwellings [1] | 10,000 | n/a | 500 GPM<br>20 PSI Residual Pressure<br>1 Hour Duration | 1,000 feet on center |
| Other Residential[1] | 10,000 | n/a | 1,000 GPM<br>20 PSI Residual Pressure<br>1 Hour Duration | 800 feet on center |
| Rowhouses[1] & Townhouses[1] | 10,000 | 2-Hr rated wall<br>Part I Chapter 2 | 1,000 GPM<br>20 PSI Residual Pressure<br>1 Hour Duration | 800 feet on center |
| Assembly<br>Health Care<br>Business<br>Education | 10,000 | n/a | 1,000 GPM<br>20 PSI Residual Pressure<br>1 Hour Duration | 800 feet on center |
| Storage<br>Industrial<br>Mercantile | 10,000 | n/a | 1,500 GPM<br>20 PSI Residual Pressure<br>2 Hour Duration | 800 feet on center |
| Mini-Storage | 10,000 | n/a | 750 GPM<br>20 PSI Residual Pressure<br>1 Hour Duration | 800 feet on center |

[1]Sites in New Castle County are subject to the provisions of New Castle County Code Chapter 40 Article 5. See §A-6-1.4.1 and §A-6-1.4.2.

A – Fire Flow Table 2, Hydrant Spacing.
The phrase, “on center” is intended to represent the maximum distance fire hydrants are spaced from each other. Proper application of this intention would generally provide a fire department with a maximum “hose lay” to a hydrant that would not exceed 500 feet for One & Two Family Dwellings, and 400 feet for all other structures.

**PART II; Chapter 7**

**ADD to Part II, Chapter 7 as follows:**

**7-5 Installation**

**7-5.2** The Water Supplier shall coordinate with the local Fire Department, to assure that the operation of the fire hydrant, including the direction of force needed to open the hydrant, is consistent with all other hydrants within the fire department's district as approved by the State Fire Marshal.

**7-5.3** The Water Supplier shall coordinate with the local Fire Department, to assure that all the characteristics of the hose connections and pumper connections on all new hydrants are consistent with all other hydrants within the fire department's district as approved by the State Fire Marshal. The characteristics of these connections shall include, but not be limited to, the internal diameter of the openings, the outside (thread) diameter of the connections, the number of threads per inch, the configuration of the thread, and the depth of the thread.

**7-5.4** As fire hydrants are replaced for whatever reason, including replacement of damaged hydrants, the water supplier shall install only hydrants that meet the operational criteria and thread specifications stated above.

**PART III; Chapter 3**

**Amend Chapter 3**
**3-2.1.1** All hydrants shall be inspected and operated ~~every three (3) years~~ annually and after each use within five (5) working days upon notification. Particular attention shall be paid to the general condition of the hydrant to include:

**PART III; Chapter 4, 5, 6, and 7**

**Chapter 4 Licensing Regulations for Fire Alarm Signaling Systems**

**AMEND Chapter 4 as follows:**
**4-3.2.4 Delaware Business License.** The Fire Alarm Signaling Systems Company must 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. ~~The Delaware Business License Number~~ 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.

**4-4.2.5 Class V:** Limited to household fire warning equipment in one and two family dwellings ~~(typical of NFPA 72, Chapter 2, systems)~~.

V(a) Household Fire Warning Systems.
V(b) Single Station Units.

**4-4.4.4** 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 ~~they have hired another Certificate Holder~~ a Certificate Holder is hired.

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

**AMEND Chapter 5 as follows:**
**5-3.2.4 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. ~~The Delaware Business License Number~~ 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.

**5-4.4.4** 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 ~~they have hired another Certificate Holder~~ a Certificate Holder is hired.

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

**AMEND Chapter 6 as follows:**

**6-3.2.4 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. ~~The Delaware Business License Number~~ 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.

**6-4.4.4** 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.

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

**AMEND Chapter 7 as follows:**

**7-3.2.4 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. ~~The Delaware Business License Number~~ 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.

**7-4.4.4** 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.

**PART V; Chapter 1**

**Amend Chapter 1**

**1-2.6** A lock box containing keys for fire department access shall be provided at the following occupancies:

(a) Any occupancy ~~greater than 10,000 aggregate gross square footage~~ that contains a fire alarm signaling system that is monitored off-site, or

(b) 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.

**PART V; Chapter 1**

**AMEND Part 5; Chapter 1 by revising 1-4.4 to read as follows**:

**1-4.4 Disposal Of Combustible Waste.** ~~Combustible waste or refuse shall be properly stored or disposed of at the end of each working day, before vacating a building or premises, and whenever necessary to prevent creating a fire hazard.~~

~~(a) The term "properly stored or disposed of" shall mean removed from the building or to within a room or area specifically designed and approved for such storage.~~

1-4.4.1 Combustible waste or refuse shall be properly stored or disposed of at the end of each working day, before vacating a building or premises, and whenever necessary to prevent creating a fire hazard. The term "properly stored or disposed of" shall mean removed from the building or to within a room or area specifically designed and approved for such storage.

1-4.4.2 Rubbish within Dumpsters
1-4.4.2.1* Dumpsters and containers with an individual capacity of 1½ cubic yards or more shall not be stored in buildings; or placed within 10 feet of combustible walls, openings, or combustible roof eave lines.

Exception 1: If areas containing dumpsters or containers are protected by an approved automatic sprinkler system and enclosed with a fire resistance rating of 1 hour.

1-4.4.2.2 Structures of Types I and Type II construction (as defined in NFPA 220) used for dumpster or container storage shall be located not less than 10 ft from openings and other buildings.

**PART V; Chapter 1**

**AMEND Part V, Chapter 1 by deleting Exception #1 as follows:**

**1-8.4 Christmas Trees.**

(a) Natural cut Christmas trees, including living trees in a balled condition with their roots protected by an earth ball shall not be permitted in Assembly, Educational, Health Care, Residential Board and Care, Detention and Correctional, Mercantile, Hotel, or Dormitory occupancies.

~~Exception No. 1: Living trees in a balled condition with their roots protected by an earth ball may be permitted provided they are maintained in a fresh condition and are not allowed to become dry.~~

Exception ~~No. 2~~ No. 1: Trees located in areas protected by an approved automatic sprinkler system.

**PART V; Chapter 1**

**AMEND Part V, Chapter 1 as follows:**

**1-15 Elevators.**

**1-15.1*** ~~All buildings provided with a Passenger Elevator shall have a cab size~~ All Passenger Elevators in a building shall be provided with a cab sized to accommodate an ambulance cot 24 inches by 76 inches in its horizontal open position.

**A-1-15.1** The words "to accommodate" in this context is intended to mean the cot is in the horizontal position and shall travel in to the elevator without having to modify the position. Additionally once the cot is in place in the cab, there should be room for at least two (2) EMS attendants.

Exception No. 1: Construction, Freight, and One- and Two-Family Elevators are not required to comply with this Section.

Exception No. 2: Where all occupiable areas of all stories of the building have access to the outside at grade and the grade is accessible to fire department personnel, elevators are not required to comply with this Section.

**PART VI; Chapter 1**

**AMEND, Part VI, Chapter 1 (Intermediate Care Facilities For The Mentally Retarded - ICFMR) as follows**:

**1-1 General.**
**1-1.3* Application.** The application of this Regulation pertains to those facilities that desire to utilize a type of residential occupancy similar to, if not actually, a one- and two-family dwelling, including new construction and/or conversion of existing dwellings. These occupancies shall be reviewed and approved under the New Residential Board and Care ~~Occupancies, Chapter 22~~ occupancy chapter of the Life Safety Code, NFPA 101, as adopted and/or modified by these Regulations, and shall include the additional fire protection features required by this Chapter.

**A-1-1.3** For purposes of clarification, these occupancies will NOT be considered Limited Care Facilities as found under the New Health Care ~~Occupancies, Chapter 22~~ occupancy chapter of the Life Safety Code, NFPA 101, except when the issue of "self preservation" can not be affirmatively demonstrated.

**PART VI; Chapter 3**

**AMEND Part VI, Chapter 3 as follows:**

**3-3.1* Fire Alarm Signaling Systems.** All new apartment buildings shall be provided with a fire alarm signaling system in accordance with ~~§7-6 except as modified by 18-3.4.2 through 18-3.4.4, of~~ the Life Safety Code, NFPA 101, as adopted and/or modified by these Regulations.

**PART VI; Chapter 7**

**ADD a new Chapter 7 (Haunted Houses) to Part VI**

**Part VI**
**Chapter 7 - Haunted Houses**

**7-1 General**

7-1.1 Purpose. To establish minimum life safety requirements for special amusement buildings known as Haunted Houses when used on a temporary basis.

7-1.2 Scope. This Regulation may be utilized in the application for a permit for occupancies commonly known as Haunted Houses used on a temporary basis. "Temporary basis" in this Chapter shall mean operating and/or open to the public for not more than 15 days, or portion thereof, within a calendar year.

7-1.3 Permit Required.
7-1.3.1 Any person, partnership, association, organization, or corporation that desires to operate a haunted house shall apply to Office of the State Fire Marshal for a permit at least fifteen (15) days prior to the date of operating the attraction.

7-1.3.2 The State Fire Marshal shall not issue such permit until satisfied that all the following provisions of this Chapter are met.

7-1.4 Electrical Inspection
7-1.4.1 All wiring shall be completed by a licensed electrician.

7-1.4.2 A letter of approval of an electrical inspection as a temporary installation, issued by an electrical inspection agency, approved by the State Board of Electrical Examiners and recognized by the State Fire Marshal shall be filed with the Office of State Fire Marshal. The date of the electrical inspection shall be within the thirty (30) days prior to opening day.

7-2 Construction
7-2.1.1 Haunted Houses shall only be allowed to operate on the level of exit discharge as well as one story above the level of discharge.

7-2.1.2 Occupants shall be prohibited from areas not on the level of exit discharge or the story above it. Provisions shall be made to physically bar occupants from entering areas not on the level of exit discharge and areas not open to the public.

7-2.1.3 Haunted houses shall not be allowed in windowless buildings.

7-2.2.1 Walls and windows may use ¼-inch plywood as covering (minimum standard). Walls are to consist of 3/8 inch plywood and/or drywall.

7-2.2.2 Foam rubber, urethane foam, or any other type of expanded combustible material known to burn readily shall not be permitted in the building. Black plastic (fire resistive only) or fire treated cloth may be used on walls.

7-3 Egress
7-3.1 Occupant Load: The occupancy shall be limited to 25 persons, regardless if an attendant or a patron.

7-3.2 Exits
7-3.2.1 There shall be a minimum of at least two exits from each floor or level. A window that leads to a 4-foot by 4-foot landing with a stairway shall be permitted.

7-3.2.2 All exits doors shall swing in the direction of exit travel.

7-3.2.3 Maximum travel distance from all areas of the building to an exit shall not exceed 75 feet.

7-3.3 Illumination: The State Fire Marshal may require on a case by case basis additional means for normal illumination.

7-3.4 Emergency Lighting: Emergency lighting shall be provided so that the floor level of all areas able to be occupied by the public is provided with minimum lighting in the event of loss of normal power

7-3.5. Exit Marking: All exits shall be provided with conspicuous, internally or externally illuminated standard EXIT signs. The exit signs shall also be provided to be illuminated in the emergency lighting mode so as to be readily visible even in the event of loss of normal power.

7-4 Protection
7-4.1 Fire Extinguishers: At least one portable multi-purpose fire extinguisher, with a minimal rating of 2A:10BC, shall be provided and properly mounted in each room able to be occupied by the public and at each exit and entrance.

7-4.2 Smoke Alarms: Smoke alarms shall be located in all hallways, corridors, and rooms on all levels.

7-4.3 Public Address System: A public address system shall be provided throughout in order to notify occupants to evacuate.

7-4.4 Fire Company Stand-By
7-4.4.1* Arrangements shall be made with the local fire company to have a stand-by crew provided on location during all hours that the haunted house is operating and/or open to the public.

Exception 1: Fire Company Stand-By shall not be required if building is fully sprinklered.

7-4.4.2 The Stand-By detail shall consist of at least one standard pumper with its water supply being a minimum 1000 gallon, a crew of at least four, and two-way radio communication with the dispatch center.

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7-5 Operating Controls
7-5.1 Attendants:
7-5.1.1 Attendants (Operators) of the attraction are responsible for general safety and good fire protection practices. Only individuals at least sixteen (16) years of age are to be attendants. An emergency action plan and critical assignments shall be reviewed with all attendants daily, prior to the hours of operation.

7-5.1.2 At least one attendant shall be located at each exit and in each room larger than 200 square feet and capable of being occupied by the public.

7-5.1.3 Each attendant shall be equipped with a standard battery-powered flashlight. A standard flashlight requires at least two Type-D dry cell batteries.

7-5.1.4. The organization operating a haunted house on a nightly or daily basis shall have a fire drill for their attendants (operators).

7-5.2 Portable Heaters: Portable heaters shall be prohibited in the building.

7-5.3.1 Combustible Materials: Excelsior, straw, hay or other rapid burning materials shall be prohibited in the building.

7-5.3.2 Flammable Materials: No flammable or readily combustible materials shall be used in decorations, sets, props, costumes, etc.

7-5.3.3 No storage shall be permitted beneath stairways. All other unsafe practices are prohibited.

7-5.4 Ignition Sources
7-5.4.1 Open Flames: Open flames shall be prohibited in the building or within 10 feet of the building.

7-5.4.2 Smoking: Smoking shall be prohibited in the building or within 10 feet of any entrance or exit. Sand or water filled “butt receptacles” shall be provided near each entrance.

**AMEND APPENDIX D**

**NFPA Publications For Guidance**
**Numerical Listing**

The following Standards, Recommendations, Recommended Practices, Manuals, Guides, and Model Laws are included here for reference and guidance in the application of the *State of Delaware Fire Prevention Rules and Regulations* when a particular problem is not otherwise covered by a Code, Standard, or Law Provision.

The Fire Marshal may use the provisions of these Standards, Recommendations, Recommended Practices, Manuals, Guides, and Model Laws as appropriate criteria for meeting the intent of the *State of Delaware Fire Prevention Rules and Regulations* in those cases.

| NFPA NO. | DATE OF PUBLICATION | TITLE |
|---|---|---|
| 11C | 1995 | Mobile Foam Apparatus, Standard for |
| 43D | 1994 | Code for the Storage of Pesticides |
| 46[1] | 1996 | Recommended Safe Practice for Storage of Forest Products |
| 49 | 1994 | Hazardous Chemicals Data |
| ~~53~~ | ~~1994~~ | ~~Guide on Fire Hazards in Oxygen Enriched Atmospheres~~ |
| 53[1] | 2004 | Guide on Fire Hazards in Oxygen Enriched Atmospheres |
| ~~68~~ | ~~1994~~ | ~~Guide for Venting of Deflagrations~~ |
| 68[1] | 2002 | Guide for Venting of Deflagrations |
| ~~70B~~ | ~~1994~~ | ~~Recommended Practice for Electrical Equipment Maintenance~~ |
| 70B[1] | 2006 | Recommended Practice for Electrical Equipment Maintenance |
| ~~70E~~ | ~~1995~~ | ~~Standard for Electrical Safety Requirements for Employee Workplaces~~ |
| 70E[1] | 2004 | Standard for Electrical Safety Requirements for Employee Workplaces |
| ~~77~~ | ~~1993~~ | ~~Recommended Practice on Static Electricity~~ |
| 77[1] | 2000 | Recommended Practice on Static Electricity |
| ~~80A[1]~~ | ~~1996~~ | ~~Recommended Practice for Protection of Buildings from Exterior Fire Exposures~~ |
| 80A[1] | 2001 | Recommended Practice for Protection of Buildings from Exterior Fire Exposures |
| 85[1] | 2004 | Boiler and Combustion Systems Hazards Code |
| ~~86D[1]~~ | ~~1995~~ | ~~Standard for Industrial Furnaces Using Vacuum as an Atmosphere~~ |
| 97 | 1996 | Standard Glossary of Terms Relating to Chimneys, Vents, and Heat-Producing Appliances |
| ~~99B[1]~~ | ~~1996~~ | ~~Standard for Hypobaric Facilities~~ |
| 99B[1] | 2005 | Standard for Hypobaric Facilities |
| ~~101A~~ | ~~1995~~ | ~~Guide on Alternative Approaches to Life Safety~~ |
| 101A[1] | 2004 | Guide on Alternative Approaches to Life Safety |
| ~~105~~ | ~~1993~~ | ~~Recommended Practice for the Installation of Smoke Control Door Assemblies~~ |
| 105[1] | 2003 | Standard for the Installation of Smoke Door Assemblies |
| ~~115[2]~~ | ~~1995~~ | ~~Recommended Practice on Laser Fire Protection~~ |
| 115[1] | 2003 | Standard for Laser Fire Protection |
| ~~130[1]~~ | ~~1995~~ | ~~Standard for Fixed Guideway Transit Systems~~ |
| 130[1] | 2003 | Standard for Fixed Guideway Transit Systems |
| 203 | 1995 | Guide for Roof Coverings and Roof Deck Construction |
| ~~204M~~ | ~~1991~~ | ~~Guide for Smoke and Heat Venting~~ |
| 204[1] | 2002 | Standard for Smoke and Heat Venting |
| 231E[1] | 1996 | Recommended Practice for the Storage of Baled Cotton |
| ~~232A[2]~~ | ~~1995~~ | ~~Guide for Fire Protection for Archives and Record Centers~~ |
| 232[1] | 2000 | Standard for Protection of Records |

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| ~~251[1]~~ | ~~1995~~ | ~~Standard Methods of Tests of Fire Endurance of Building Construction and Materials~~ |
| 251[1] | 2006 | Standard Methods of Tests of Fire Resistance of Building Construction and Materials |
| ~~252[1]~~ | ~~1995~~ | ~~Standard Methods of Fire Tests of Door Assemblies~~ |
| 252[1] | 2003 | Standard Methods of Fire Tests of Door Assemblies |
| ~~253[1]~~ | ~~1995~~ | ~~Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source~~ |
| 253[1] | 2006 | Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source |
| ~~255[1]~~ | ~~1996~~ | ~~Standard Method of Test of Surface Burning Characteristics of Building Materials~~ |
| 255[1] | 2006 | Standard Method of Test of Surface Burning Characteristics of Building Materials |
| ~~256~~ | ~~1993~~ | ~~Standard Methods of Fire Tests of Roof Coverings~~ |
| 256[1] | 2003 | Standard Methods of Fire Tests of Roof Coverings |
| ~~257~~ | ~~1990~~ | ~~Standard on Fire Test for Window and Glass Bock Assemblies~~ |
| 257[1] | 2000 | Standard on Fire Test for Window and Glass Block Assemblies |
| ~~258~~ | ~~1994~~ | ~~Standard Research Test Method for Determining Smoke Generation of Solid Materials~~ |
| 258[1] | 2001 | Standard Research Test Method for Determining Smoke Generation of Solid Materials |
| ~~259~~ | ~~1993~~ | ~~Standard Test Method for Potential Heat of Building Materials~~ |
| 259[1] | 2003 | Standard Test Method for Potential Heat of Building Materials |
| ~~260~~ | ~~1994~~ | ~~Standard Methods of Tests and Classification System for Cigarette Ignition Resistance of Components of Upholstered Furniture~~ |
| 260[1] | 2003 | Standard Methods of Tests and Classification System for Cigarette Ignition Resistance of Components of Upholstered Furniture |
| 261 | 1994 | Standard Method of Test for Determining Resistance of Mock-Up Upholstered Furniture Material Assemblies to Ignition by Smoldering Cigarettes |
| 261[1] | 2003 | Standard Method of Test for Determining Resistance of Mock-Up Upholstered Furniture Material Assemblies to Ignition by Smoldering Cigarettes |
| ~~262~~ | ~~1994~~ | ~~Standard Method of Test for Fire and Smoke Characteristics of Wires and Cables~~ |
| 262[1] | 2002 | Standard Method of Test for Flame Travel and Smoke of Wires and Cables for Use in Air-Handling Spaces |
| 263 | 1994 | Heat and Visible Smoke Release Rates for Materials and Products, Standard Method of Test for |
| 264 | 1995 | Standard Method of Test of Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter |
| 264A | 1994 | Method of Test for Heat Release Rates for Upholstered Furniture Components or Composites and Mattresses Using an Oxygen Consumption Calorimeter |
| ~~265~~ | ~~1994~~ | ~~Standard Methods of Fire Tests Evaluating Room Fire Growth Contribution of Textile Wall Coverings~~ |

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| 265[1] | 2002 | Standard Methods of Fire Tests for Evaluating Room Fire Growth Contribution of Textile Coverings on Full Height Panels and Walls |
| ~~268[2]~~ | ~~1996~~ | ~~Standard Test Method for Determining Ignitibility of Exterior Wall Assemblies Using a Radiant Heat Energy Source~~ |
| 268[1] | 2001 | Standard Test Method for Determining Ignitibility of Exterior Wall Assemblies Using a Radiant Heat Energy Source |
| ~~269[2]~~ | ~~1996~~ | ~~Standard Test Method for Developing Toxic Potency Data for Use in Fire Hazard Modeling~~ |
| 269[1] | 2000 | Standard Test Method for Developing Toxic Potency Data for Use in Fire Hazard Modeling |
| ~~291[1]~~ | ~~1995~~ | ~~Recommended Practice for Fire Flow Testing and Marking of Hydrants~~ |
| 291[1] | 2002 | Recommended Practice for Fire Flow Testing and Marking of Hydrants |
| 295 | 1991 | Standard for Wild Fire Control |
| 297 | 1995 | Guide on Principles and Practices for Communications Systems |
| 299 | 1991 | Standard for Protection of Life and Property from Wildfire |
| ~~318~~ | ~~1995~~ | ~~Standard for the Protection of Cleanrooms~~ |
| 318[1] | 2006 | Standard for the Protection of Semiconductor Fabrication Facilities |
| 325 | 1994 | Guide to Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids |
| 328 | 1992 | Recommended Practice for the Control of Flammable and Combustible Liquids and Gases in Manholes, Sewers, and Similar Underground Structures |
| ~~329~~ | ~~1992~~ | ~~Recommended Practice for Handling Underground Releases of Flammable and Combustible Liquids~~ |
| 329[1] | 2005 | Recommended Practice for Handling Releases of Flammable and Combustible Liquids and Gases |
| 419 | 1992 | Guide for Master Planning Airport Water Supply Systems for Fire Protection |
| ~~423~~ | ~~1994~~ | ~~Standard for Construction and Protection of Aircraft Engine Test Facilities~~ |
| 423[1] | 2004 | Standard for Construction and Protection of Aircraft Engine Test ~~Facilities~~ |
| ~~424[2]~~ | ~~1996~~ | ~~Guide for Airport/Community Emergency Planning~~ |
| 424[1] | 2004 | Guide for Airport/Community Emergency Planning |
| 491M | 1991 | Manual of Hazardous Chemical Reactions |
| ~~497A~~ | ~~1992~~ | ~~Recommended Practice for Classification of Class I Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas~~ |
| 497[1] | 2004 | Recommended Practice for the Classification of Flammable Liquids, Gases, or Vapors and of Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas |
| 497M | 1991 | Manual for Classification of Gases, Vapors, and Dusts for Electrical Equipment in Hazardous (Classified) Locations |
| ~~497B~~ | ~~1991~~ | ~~Recommended Practice for the Classification of Class II Hazardous (Classified) Locations for Electrical Installations in Chemical Process Areas~~ |
| 499[1] | 2004 | Recommended Practice for the Classification of Combustible Dusts and of Hazardous (Classified) Locations for Electrical |

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| | | Installations in Chemical Process Areas |
| 512 | 1994 | Standard for Truck Fire Protection |
| ~~555[2]~~ | ~~1996~~ | ~~Guide on Methods for Evaluating Potential for Room Flashover~~ |
| 555[1] | 2004 | Guide on Methods for Evaluating Potential for Room Flashover |
| ~~600[1]~~ | ~~1996~~ | ~~Standard on Industrial Fire Brigades~~ |
| 600[1] | 2005 | Standard on Industrial Fire Brigades |
| ~~601[1]~~ | ~~1996~~ | ~~Standard for Guard Service in Fire Loss Prevention~~ |
| 601[1] | 2005 | Standard for Security Service in Fire ~~Loss Prevention~~ |
| ~~701[1]~~ | ~~1996~~ | ~~Standard Methods of Fire Tests for Flame-Resistant Textiles and Films~~ |
| 701[1] | 2004 | Standard Methods of Fire Tests for Flame Propagation of Textiles and Films |
| ~~705~~ | ~~1993~~ | ~~Recommended Practice for a Field Flame Test for Textiles and Films~~ |
| 705[1] | 2003 | Recommended Practice for a Field Flame Test for Textiles and Films |
| ~~801[1]~~ | ~~1995~~ | ~~Standard for Facilities Handling Radioactive Materials~~ |
| 801[1] | 2003 | Standard for Facilities Handling Radioactive Materials |
| 802 | 1993 | Recommended Practice for Fire Protection for Nuclear Research and Production Reactors |
| 803 | 1993 | Standard for Fire Protection for Light Water Nuclear Power Plants |
| 804[1] | 2006 | Standard for Fire Protection for Advanced Light Water Reactor Electric Generating Plants |
| 805[1] | 2006 | Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants |
| ~~820[1]~~ | ~~1995~~ | ~~Standard for Fire Protection in Wastewater Treatment and Collection Facilities~~ |
| 820[1] | 2003 | Standard for Fire Protection in Wastewater Treatment and Collection Facilities |
| ~~850[1]~~ | ~~1996~~ | ~~Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations~~ |
| 850[1] | 2005 | Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations |
| ~~851[1]~~ | ~~1996~~ | ~~Recommended Practice for Fire Protection for Hydroelectric Generating Plants~~ |
| 851[1] | 2005 | Recommended Practice for Fire Protection for Hydroelectric Generating Plants |
| ~~901[1]~~ | ~~1995~~ | ~~Standard Classifications for Incident Reporting and Fire Protection Data~~ |
| 901[1] | 2006 | Standard Classifications for Incident Reporting and Fire Protection Data |
| ~~910~~ | ~~1991~~ | ~~Recommended Practice for the Protection of Libraries and Library Collections~~ |
| ~~911~~ | ~~1991~~ | ~~Recommended Practice for the Protection of Museums and Museum Collections~~ |
| ~~912~~ | ~~1993~~ | ~~Recommended Practice for Fire Protection in Places of Worship~~ |
| ~~914~~ | ~~1994~~ | ~~Recommended Practice for Fire Protection in Historic Structures~~ |

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|---|---|---|
| 914[1] | 2001 | Code for Fire Protection of Historic Structures |
| ~~1141~~ | ~~1990~~ | ~~Standard for Fire Protection in Planned Building Groups~~ |
| 1141[1] | 2003 | Standard for Fire Protection in Planned Building Groups |
| ~~1600[2]~~ | ~~1995~~ | ~~Recommended Practice for Disaster Management~~ |
| 1600[1] | 2004 | Standard on Disaster/Emergency Management and Business Continuity Programs |
| ~~8501~~ | ~~1992~~ | ~~Standard for Single Burner Boiler Operation~~ |
| ~~8502[2]~~ | ~~1995~~ | ~~Standard for the Prevention of Furnace Explosions/ Implosions in Multiple Burner Boilers~~ |
| ~~8503~~ | ~~1992~~ | ~~Standard for Pulverized Fuel Systems~~ |
| ~~8504[1]~~ | ~~1996~~ | ~~Standard on Atmospheric Fluidized-Bed Boiler Operation~~ |
| ~~8505~~ | ~~1992~~ | ~~Recommended Practice for Stoker Operation~~ |
| ~~8506[1]~~ | ~~1995~~ | ~~Standard on Heat Recovery Steam Generator Systems~~ |

**AMEND APPENDIX D**

**NFPA Publications For Guidance**
**Alphabetical Listing**

The following Standards, Recommendations, Recommended Practices, Manuals, Guides and Model Laws are included here for reference and guidance in the application of the *State of Delaware Fire Prevention Rules and Regulations* when a particular problem is not otherwise covered by a Code, Standard, or Law Provision. The Fire Marshal may use the provisions of these Standards, Recommendations, Recommended Practices, Manuals, Guides and Model Laws as appropriate criteria for meeting the intent of the *State of Delaware Fire Prevention Rules and Regulations* in those cases.

| NFPA NO. | DATE OF PUBLICATION | TITLE |
|---|---|---|
| ~~423~~ | ~~1994~~ | ~~Aircraft Engine Test Facilities, Standard for Construction and Protection of~~ |
| 423[1] | 2004 | Aircraft Engine Test ~~Facilities~~, Standard for Construction and Protection of |
| ~~424[2]~~ | ~~1996~~ | ~~Airport/Community Emergency Planning, Guide for~~ |
| 424[1] | 2004 | Airport/Community Emergency Planning, Guide for |
| 419 | 1992 | Airport Water Supply Systems for Fire Protection, Guide for Master Planning |
| ~~101A~~ | ~~1995~~ | ~~Alternative Approaches to Life Safety, Guide on~~ |
| 101A[1] | 2004 | Alternative Approaches to Life Safety, Guide on |
| ~~232A[2]~~ | ~~1995~~ | ~~Archives and Record Centers, Guide for Fire Protection for~~ |
| ~~8504[1]~~ | ~~1996~~ | ~~Atmospheric Fluidized-Bed Boiler Operation, Standard on~~ |
| 231E | 1996 | Baled Cotton, Recommended Practice for the Storage of |
| ~~8501~~ | ~~1992~~ | ~~Boiler Operation, Single Boiler, Standard for~~ |
| 85[1] | 2004 | Boiler and Combustion Systems Hazards Code |
| ~~251[1]~~ | ~~1995~~ | ~~Building Construction and Materials, Standard Methods of Tests of Fire Endurance of~~ |
| 251[1] | 2006 | Building Construction and Materials, Standard Methods of Tests of Fire Resistance of |
| 259 | 1993 | Building Materials, Standard Test Method for Potential Heat of |
| 259[1] | 2003 | Building Materials, Standard Test Method for Potential Heat of |

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| ~~255[1]~~ | ~~1996~~ | ~~Building Materials, Standard Method of Test of Surface Burning Characteristics of~~ |
| 255[1] | 2006 | Building Materials, Standard Method of Test of Surface Burning Characteristics of |
| 491M | 1991 | Chemical Reactions, Hazardous, Manual of |
| 49 | 1994 | Chemicals Data, Hazardous |
| 97 | 1996 | Chimneys, Vents, and Heat-Producing Appliances, Standard Glossary of Terms Relating to |
| ~~260~~ | ~~1994~~ | ~~Cigarette Ignition Resistance of Components of Furniture, Standard Methods of Tests and Classification System for~~ |
| 260[1] | 2003 | Cigarette Ignition Resistance of Components of Furniture, Standard Methods of Tests and Classification System for |
| ~~261~~ | ~~1994~~ | ~~Cigarettes, Smoldering, Standard Method of Test for Determining Resistance of Mock-Up Upholstered Furniture Material Assemblies to Ignition by~~ |
| ~~318~~ | ~~1995~~ | ~~Cleanrooms, Standard for the Protection of~~ |
| 297 | 1995 | Communications Systems, Guide on Principals and Practices for |
| ~~1600[2]~~ | ~~1995~~ | ~~Disaster Management, Recommended Practice for~~ |
| 1600[1] | 2004 | Standard on Disaster/Emergency Management and Business Continuity Programs |
| ~~252[1]~~ | ~~1995~~ | ~~Door Assemblies, Standard Methods of Fire Tests of~~ |
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