

**DELAWARE STATE FIRE PREVENTION COMMISSION**  
**Statutory Authority: 16 Delaware Code,**  
**Section 6603 (16 Del.C. §6603)**

**ORDER**  
**FINAL**

**State Fire Prevention Regulations**

The State Fire Prevention Commission (“the Commission”) held a properly noticed, public hearing on July 20, 2004 to receive comment on proposed additions, revisions, deletions and modifications to Commission Regulations. (Attached to this Order as “Exhibit A”). The attendance sheets and transcribed minutes of this hearing are attached to this Order as Exhibit “B” in lieu of a statement of the summary of the evidence. There were no written comments received by the Commission.

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

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

Part I, Annex A  
Part I, Annex B  
Part II, Chapter 6  
Part V, Chapter 1 - 5  
Part VI, Chapter 3  
Appendix E

2. Although the Commission held a hearing in the afternoon and in the evening, no public comment was received except for a brief explanation of the changes offered by the State Fire Marshal’s Office (Exhibit “C”).

**THE LAW**

The State Fire Prevention Commission’s rulemaking authority is provided by 16 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 fire prevention and fire protection and shall have the force and effect of law in the several counties, cities and political subdivisions of the State. . . .

**DECISION**

The Commission hereby 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 the area and the evidence presented in the testimony of the State Fire Marshal’s Office.

**It is so Ordered this 17th day of August 2004.**

**STATE FIRE PREVENTION COMMISSION**

Kenneth H. McMahon, Chairman  
W. (Bill) Betts, Jr., Vice-Chairman  
Carlton E. Carey, Sr.  
Frances J. Dougherty  
Robert Ricker  
Daniel W. McGee  
Jasper H. Lakey

**AMEND PART I, ANNEX A AS FOLLOWS:**

In two (2) places, correct misprinted edition date on currently adopted NFPA document as follows:

55<sup>1</sup> ~~2004~~ Standard for Compressed and Liquefied Gases in portable Cylinders

55<sup>1</sup> 1998 Standard for Compressed and Liquefied Gases in portable Cylinders

AMEND PART I, ANNEX B AS FOLLOWS:

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

Chapter 8, Installation Requirements.

8.16 System Attachments.

~~8.16.2 Arrangement.~~

~~8.16.2.4.6 Fire Department Connection~~

8.16.2 Fire Department Connection.

~~8.16.2.4 Arrangement~~

AMEND ~~§8-16.2.4.6~~ 8.16.2.4.6 by deleting the existing ~~§8-16.2.4.6~~ 8.16.2.4.6 and inserting a new section to read as follows:

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

Chapter 7, System Components.

7.6 Alarms.

~~AMEND §7.6, Alarms, by deleting the existing Exception and adding the following to §7.6:~~

~~The alarm shall be of sufficient intensity to sound an alarm at 15 dBA above ambient noise level inside the protected property.~~

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

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

AMEND Section numbers in NFPA 54, 2002, National Fuel Gas Code.

Chapter 9, Installation of Specific Equipment.

9.23 Room Heaters.

~~9-23.1~~ 9.23.1 Prohibited Installations. Unvented room heaters shall not be installed in bathrooms and bedrooms.

AMEND Section numbers in NFPA 58, 2001, Liquefied Petroleum Gases Code.

Chapter 1, General Provisions.

~~1-4~~ 1.4 Notification Of Installations.

AMEND ~~§1-4.1~~ 1.4.1 Stationary Installations, by deleting the existing section and inserting two new subsections to read as follows:

~~1-4.1.1\*~~ 1.4.1.1\* Plans shall be submitted to the Office of State Fire Marshal for review and approval for the following liquefied petroleum gas (LPG) installations:

~~A-1-4.1.1~~ **A.1.4.1.1** 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\*~~ **1.4.1.2\*** 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.1.4.1.2** 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 ~~1-4-2.1.4.1~~ and ~~1.4.2~~: One- and Two-Family Dwellings are not required to comply with these sections.*

## **Chapter 3, Installation Of LP-Gas Systems.**

### **~~3-10~~ 3.10 Fire Protection.**

#### **ADD New ~~§3-10.4~~ 3.10.4:**

#### **~~3-10.4~~ 3.10.4 Fire Protection At Bulk Plants.**

~~3-10.4.1~~ **3.10.4.1** **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~~ 3.10.4 shall not apply to those facilities that fall within the definition of "REMOTE" with respect to location, as defined in ~~§3-10.4.2~~ 3.10.4.2. Under this exception, the requirements of ~~§3-10.4.5~~ 3.10.4.5, Water Supply for Fire Protection, are retained and required.*

#### **~~3-10.4.2~~ 3.10.4.2 Definitions.**

~~3-10.4.3~~ **3.10.4.3\*** 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-3-10.4.3~~ **A.3.10.4.3** **Total Product Containment System.** A total product containment system includes emergency internal and shutoff valves having remote and thermal capability and pull-away protection, such installation in accordance with standards and specifications of both the American Petroleum Institute (API) and NFPA 58.

~~3-10.4.4~~ **3.10.4.4** No persons, other than the plant management or plant employees, shall have access to any bulk LP-Gas storage facility.

~~3-10.4.5~~ **3.10.4.5** Water Supply For Fire Protection. Notwithstanding the 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:

#### **~~3-10.4.6~~ 3.10.4.6 Fire Department Chief Officer.**

~~3-10.4.6.1~~ **3.10.4.6.1** 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~~ **3.10.4.6.2** Within ten working days of the Fire Department Chief Officer having received the plans and specifications as identified in ~~§3-10.4.6.1~~ 3.10.4.6.1 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:

~~3-10.4.6.3~~ **3.10.4.6.3** If the Fire Department Chief Officer does not respond within ten working days as required in ~~3-10.4.6.2~~ 3.10.4.6.2 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, LP-Gas Liquid Transfer.**

### **~~4-2~~ 4.2 Operational Safety.**

#### **~~4-2.2~~ 4.2.2 Containers To Be Filled Or Evacuated.**

AMEND ~~§4-2.2.1~~ **4.2.2.1** by deleting the existing ~~§4-2.2.1~~ **4.2.2.1** and inserting a new ~~§4-2.2.1~~ **4.2.2.1** to read as follows:

~~4-2.2.1~~ **4.2.2.1\*** Containers shall be filled only by the owner or upon the owner's authorization.

~~A-4.2.2.1~~ 4.2.2.1 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. §7702.

#### **Chapter 5, Storage Of Portable Containers Awaiting Use, Resale, Or Exchange.**

##### ~~5-4.2~~ **5.4.2 Protection Of Containers.**

AMEND ~~§5-4.2.2~~ 5.4.2.2 by deleting ~~§5-4.2.2~~ 5.4.2.2 and inserting a new ~~§5-4.2.2~~ 5.4.2.2 to read as follows:

~~5-4.2.2\*~~ 5.4.2.2\* 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~~ 5.4.2.2 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.

AMEND Section numbers in NFPA 101, 2000, The Life Safety Code.

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

##### ~~9-2~~ 9.2 Heating, Ventilating, and Air Conditioning:

~~AMEND §9.2.1, by adding a new §9.2.1.1, Unvented Fuel-Fired Heating Equipment, and renumber the following sections, to read as follows:~~

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

##### ~~9.2.1~~ 9.2.1 Air Conditioning, Heating, Ventilating Ductwork, and Related Equipment.-

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

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

##### ~~16-2~~ **16.2 Means of Egress Requirements.**

##### ~~16-2.2~~ 16.2.2 Means of Egress Components.

##### ~~16-2.2.2~~ 16.2.2.2 Doors.

AMEND ~~§16-2.2.2.2, 16.2.2.2.2~~ 16.2.2.2.2 Panic Hardware or Fire Exit Hardware, by deleting the existing ~~§16-2.2.2.2~~ 16.2.2.2.2, and inserting a new ~~§16-2.2.2.2~~ 16.2.2.2.2 to read as follows:

~~16-2.2.2.2~~ 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~~ 16.3 Protection.

##### ~~16-3.4~~ 16.3.4 Detection, Alarm, and Communication Systems.

AMEND ~~§16-3.4.4~~ 16.3.4.4, Emergency Forces Notification, by deleting the existing ~~§16-3.4.4~~ 16.3.4.4 and inserting a new ~~§16-3.4.4~~ 16.3.4.4 to read as follows:

~~16-3.4.4~~ 16.3.4.4 **Emergency Forces Notification.** Fire department notification shall be accomplished in accordance with ~~§7-6.4~~ 9.6.4.

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

##### ~~24-1.1~~ 24.1.1 Application.

AMEND ~~§24-1.1~~ 24.1.1, Application, by deleting the existing ~~§24-1.1.2~~ 24.1.1.2 and inserting a new ~~§24-1.1.2~~ 24.1.1.2 to read as follows:

~~24-1.1.2~~ 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~~ 26.3 Protection.

~~26-3.3~~ 26.3.3 Detection, Alarm, And Communication Systems.

AMEND ~~§26-3.3~~ 26.3.3, Detection Alarm, And Communication Systems, by adding a new Subsection to read as follows:

~~26-3.3.4~~ 26.3.3.4 A corridor smoke detection system in accordance with ~~§9-6~~ 9.6 shall be installed in all lodging or rooming houses.

**Chapter 30, New Apartment Buildings.**

~~30-3.4~~ 30.3.4 Detection, Alarm, and Communication Systems.

AMEND ~~§30-3.4.1~~ 30.3.4.1, General, by deleting ~~§30-3.4.1~~ 30.3.4.1 and two exceptions, and inserting a new ~~§30-3.4.1~~ 30.3.4.1 and exception to read as follows:

~~30-3.4.1~~ 30.3.4.1 **General.** All new apartment buildings shall be provided with a fire alarm system in accordance with ~~§9-6~~ 9.6, except as modified by ~~30-3.4.2 through 30-3.4.4~~ 30.3.4.2 through 30.3.4.4

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

~~30-3.4.4.1~~ 30.3.4.4.1 A corridor smoke detection system in accordance with ~~§9-6~~ 9.6, shall be installed in all apartment buildings.

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

~~32-2~~ 32.2 Small Facilities.

AMEND ~~§32-2~~ 32.2, Small Facilities, by adding new Subsections to read as follows:

~~32-2.2.7~~ 32.2.2.7 **Emergency Lighting.** Emergency lighting shall be installed in accordance with ~~§7-9~~ 7.9.

~~32-2.2.8~~ 32.2.2.8 **Marking Of Means Of Egress.** Means of egress shall be marked in accordance with ~~§7-10~~ 7.10.

~~32-2.2.9~~ 32.2.2.9 **Portable Fire Extinguishers.** Portable fire extinguishers shall be provided near hazardous areas in accordance with ~~§9-7~~ 9.7.

~~32-2.3.4~~ 32.2.3.4 **Detection, Alarm, and Communication Systems.**

AMEND ~~§32-2.3.4~~ 32.2.3.4, Detection, Alarm, and Communication Systems, by adding ~~§32-2.3.4.4~~ 32.2.3.4.4, Emergency Forces Notification, to read as follows:

~~32-2.3.4.4~~ 32.2.3.4.4, **Emergency Forces Notification.** Fire department notification shall be accomplished in accordance with ~~§9-6.4~~ 9.6.4.

~~32-3~~ 32.3 Large Facilities.

~~32-3.3.4~~ 32.3.3.4 Detection, Alarm, and Communication Systems.

AMEND ~~§32-3.3.4.6~~ 32.3.3.4.6, Fire Department Notification, by deleting the existing ~~§32-3.3.4.6~~ 32.3.3.4.6 and inserting a new ~~§32-3.3.4~~ 32.3.3.4 to read as follows:

~~32-3.3.4.6~~ 32.3.3.4.6 **Fire Department Notification.** Fire department notification shall be accomplished in accordance with §9-6.4 9.6.4.

**AMEND PART II, CHAPTER 6 AS FOLLOWS:**

**Delete A-6-1**

**6-1\* General.**

~~A-6-1 The Standard for Fire Flow for Fire Protection has undergone extensive revisions including, but not limited to, the relocation of all definitions to Part I, Chapter 2; the partial elimination of some requirements; the changes in terminology for consistency throughout these Regulations; and the complete restructuring of the Fire Flow tables and their requirements.~~

**Revise 6-1.4.1 and A-6-1.4.1 as follows:**

**6-1.4.1\*** Residential sub-divisions, located with the jurisdiction of New Castle County, containing more than twenty-five (25) lots, or minimum aggregate side yard widths of less than thirty (30) feet. These requirements are contained in ~~§20-61~~ of New Castle County Code Chapter 40, Article 12, reproduced in Appendix A of this Regulation.

~~**A-6-1.4.1**~~ New Castle County Code §20-61 Water Supply:

~~(a) All proposed residential subdivisions containing more than twenty five (25) lots, or minimum aggregate side yard widths of less than thirty (30) feet, shall provide a public or community water distribution system. The design and installation of such public or community system shall be subject to the approval of the appropriate state agencies and the main sizes shall meet the requirements of the Office of the State Fire Marshal.~~

~~(b) Where the subdivider proposes that individual on-site water supply systems be utilized within the subdivision, the subdivider shall either install such facilities or shall require (by deed restriction or otherwise), as a condition of the sale of each lot or parcel within the subdivision, that the facilities shall be installed by the purchaser of such lot or parcel at the time that a principal building is constructed thereon, in accordance with appropriate state regulations.~~

~~(c) Where individual on-site water supply systems are to be utilized, each lot shall be of a size and shape to allow safe location of such a system.~~

~~(d) Regulations governing on-site water supply systems are to be found in Appendix XII of this Chapter. An on-site water supply system shall further require a permit from appropriate state agencies (Ord. No. 73-103, Sec. 5; Ord. No. 90-200, Sec. 2, 9-25-90)~~

~~**A-6-1.4.1**~~ New Castle County Code Chapter 40, Article 12, Sewer and Water Impact:

SECTION 40.12.210 WATER SERVICE

Each water supply company shall develop a method to determine water volumes and pressure in their systems. On-site testing shall be used as the basis for determining the capacities in lines, pumps, storage and distribution facilities. The certification of adequate capacity of the water service shall be obtained by the developer from the water supplier.

SECTION 40.12.115 WATER SUPPLY

A. All proposed residential subdivisions containing more than twenty-five (25) lots or minimum aggregate side yard widths of less than thirty (30) feet shall provide a public or community water distribution system. The design and installation of such public or community system shall be subject to the approval of the appropriate State agencies, and the main sizes shall meet the requirements of the office of the State Fire Marshal.

B. Where the subdivider proposes that individual on-site water supply systems be utilized within the subdivision, the subdivider shall either install such facilities or shall require, by deed restriction or otherwise, as a condition of the sale of each lot or parcel within the subdivision, that the facilities shall be installed by the purchaser of such lot or parcel at the time that a principal building is constructed thereon, in accordance with appropriate State requirements. Where individual on-site water supply systems are to be utilized, each lot shall be of a size and shape to allow safe location of such a system. An on-site water supply shall further require a permit from appropriate State agencies.

**Revise 6-1.4.2 and A-6-1.4.2 as follows:**

**6-1.4.2\*** Fire hydrants, located within the jurisdiction of New Castle County. These requirements are contained in §20-64 of the New Castle County Code Chapter 40, Article 22, reproduced in Appendix A of this Regulation.

~~**A-6-1.4.2** New Castle County Code §20-64 Fire Hydrants and Fire Lanes:~~

~~(a) Fire hydrants shall be installed within five hundred (500) feet of all houses, measured by way of accessible public thoroughfare, wherever a public or community water supply system is provided (as required by the National Association of Fire Underwriters), and within four hundred (400) feet of all commercial and industrial establishments, as approved by the State Fire Marshal.~~

~~(b) All fire hydrants shall be shown on record plans, with an indication of water main sizing connecting thereto.~~

~~(c) The need for and location of fire lanes for multifamily and row or group residential, commercial, industrial, and institutional development will be determined by the State Fire Marshal in accordance with the guidelines contained in the publication "Standard for Compliance with New Castle County Ordinance 71-103", published by the State Fire Marshal. In applying such guidelines, a fire lane shall be deemed necessary only where reasonable and direct accessibility by fire apparatus cannot be made to at least one side of a structure from an all-weather hard surface, capable of bearing the weight of commonly used fire apparatus. Such fire lanes to be provided need not be paved with concrete, amesite or similar material, but may be surfaced in any suitable manner such as to provide an all-weather surface capable of performing the above function and shall be signed in such a fashion as to indicate the purpose and intent thereof and to prohibit parking thereon.~~

~~(d) In cases where equivalent fire protection is provided by appropriately sized standpipes, or similar arrangements the requirements of subsection (c) of this section shall not be applicable. (Ord. No. 73-103, Section 5; Ord. No. 88-168, Section 1, 1-10-89; Ord. No. 90-200, Section 1, 9-25-90).~~

~~**A-6-1.4.2** New Castle County Code Chapter 40 Article 22, Drainage, Utilities, Septic Systems, Parking, Loading, and Lighting:~~

SECTION 40.22.430 FIRE HYDRANTS AND FIRE LANES.

A. Fire hydrants in subdivisions shall be installed within five hundred (500) feet of all houses, measured by way of accessible public thoroughfare, wherever a public or community water supply system is provided, as required by the National Association of Fire Underwriters, and within four hundred (400) feet of all commercial and industrial establishments, as approved by the State Fire Marshal.

B. All fire hydrants shall be shown on record plans, with an indication of water main sizing connecting thereto.

C. The need for and location of fire lanes for multi-family and row or group residential, commercial, industrial and institutional development will be determined by the State Fire Marshal in accordance with the guidelines contained in the publication Standard for Compliance with New Castle County published by the State Fire Marshal. In applying such guidelines, a fire lane shall be deemed necessary only where reasonable and direct accessibility by fire apparatus cannot be made to at least one (1) side of a structure from an all-weather hard surface, capable of bearing the weight of commonly used fire apparatus. Such fire lanes to be provided need not be paved with concrete, amesite or similar material, but may be surfaced in any suitable manner such as to provide an all-weather surface capable of performing the function and shall be signed in such a fashion as to indicate the purpose and intent thereof and to prohibit parking thereon.

D. Where equivalent fire protection is provided by appropriately sized standpipes or similar arrangements, the requirements of subsection C of this Section shall not be applicable.

**Rewrite Part II, Chapter 6, Section 6-4 as follows:**

~~**6-4\* Water Distribution Systems.**~~

~~**A-6-4** In the application of this regulation to developments of individual, detached, stand alone single family dwellings, the Department of Natural Resources and Environmental Control, Division of Water Resources, in an attempt to have more public water systems installed in lieu of individual wells, has requested the State Fire Prevention Commission and the State Fire Marshal to accept the following:~~

~~The Office of State Fire Marshal and the State Fire Prevention Commission are most concerned about the necessity for providing adequate water supplies for fire fighting purposes.~~

~~The Office of State Fire Marshal and the State Fire Prevention Commission are not inclined, at this time, to change our current regulations dealing with fire flow or fire hydrant provisions.~~

~~The Office of State Fire Marshal will consider an application from individual developers on a case by case basis,~~

in order to analyze the impact of such potential alternative methods on fire service needs.

The alternative methods discussed above will be linked to the DNREC regulations to accommodate subdivisions of less than fifty lots in addition to the requirement for installation of the fire protection infrastructure for subdivisions with over fifty lots, requiring the providing of the minimum fire flows and the installation of the fire hydrants, when construction begins on the fiftieth lot.

The alternative methods discussed herein will be applied in conjunction with the additional provision of the State Fire Prevention Regulations with respect to individual, detached, single family dwellings within the appropriate range of square footage.

The alternative methods discussed herein apply only to individual, detached single family dwellings.

The Office of State Fire Marshal has agreed in principle to this provision. Our approach via this method is limited to those areas of the State where there is not an access to public water systems.

~~6-4.1~~ Where a water distribution system is required for stand alone/detached one- and two- family dwelling sites, the infrastructure for fire protection water shall be provided. The fire flow requirements shall take effect and be provided at the completion of the first fifty (50) lots and prior to the development of the fifty first (51st) lot.

~~6-4.2~~ The requirements of Fire Flow Table 1, with respect to the provisions of the Standard on Water Supplies for Suburban and Rural Fire Fighting, NFPA 1142, as adopted and/or modified by these Regulations, may be applied to subdivisions of 25 or less lots of detached one- and two- family dwellings, where central water is provided, but the requirement for water flow for fire protection is as follows:

1) The infrastructure for fire flow capability must be installed to accommodate the fire flow requirements when additional development occurs.

2) For subdivisions of more than 25 lots of detached one- and two- family dwellings, water flow for fire protection, pursuant to the applicable provisions of this Chapter, must be provided at the completion of the 50th lot, or the last lot to be built in the subdivision if less than 50 lots.

~~6-4.3~~ The infrastructure for fire flow shall consist of properly listed and sized underground mains, stub ups for hydrants, and associated valves.

#### **6-4\* Water Distribution Systems.**

6-4.1 Where water is available and a water distribution system is required for stand alone/detached one- and two family dwelling sites, the infrastructure for fire protection water shall be provided. The infrastructure for fire flow shall consist of properly listed and sized underground mains, stub ups for hydrants, and associated valves. The fire hydrants shall be installed prior to the fire flow requirements taking effect.

6-4.1.1 For purposes of this Regulation, water for fire protection shall be considered “available” whenever any portion of a proposed project’s property or any portion of a proposed subdivision is situated within one thousand (1000) feet of any portion of a water supplier’s new or existing infrastructure that includes water supply piping of 4 inches or more in nominal internal diameter. This measurement shall be calculated by way of accessible public thoroughfare(s) from the proposed property or subdivision and may not necessarily be a radius.

6-4.1.2 In the event the project or subdivision is situated in a geographical area that has been authorized to be provided with water service by a supplier other than the water supplier whose infrastructure is within the specified distance, the State Fire Marshal, on a case by case basis, may re-evaluate the requirements of § 6-4.1.1.

6-4.2 The requirements of Fire Flow Table 1, with respect to the Standard on Water Supplies for Suburban and Rural Fire Fighting, NFPA 1142, as adopted and/or modified by these Regulations, may be applied to subdivisions of 25 or less lots of one and two family detached homes, where central water is provided. However, the requirement for water flow for fire protection shall be required when:

1) Additional development creates a subdivision in excess of 25 lots of detached one or two family dwellings or

2) In the opinion of the State Fire Marshal the probability of additional development will occur in excess of 25 lots of detached one or two family dwellings then the infrastructure for fire flow capability must be installed to accommodate the fire flow requirements.

6-4.3 The requirements of Fire Flow Table 2 shall take effect where water is available and be provided under the following circumstances:

1) For subdivisions of 50 or more lots of detached one and two family dwellings the water flow for fire protection shall be provided upon completion of the 50<sup>th</sup> lot, and prior to the development of the 51<sup>st</sup> lot.

2) For subdivisions of 26 through 49 lots of detached one and two family dwellings the water flow for fire



protection shall be provided at the completion of the last lot to be built.

**Amend Part II, Chapter 6, Section 6-5.3.3 by adding an exception to read as follows:**

6-5.3.3 Dead end mains shall not exceed 600 feet in length for main sizes under 10 inches in diameter.

Exception: Dead end mains exceeding 600 feet may be a minimum of 8 inches in diameter if an engineering analysis, acceptable to the Office of the State Fire Marshal, is submitted by a registered Professional Engineer demonstrating that the minimum flows and duration specified elsewhere in this Regulation are met or exceeded.

**AMEND THE TEXT AT THE TOP OF THE FIRE FLOW TABLE 1 TO READ AS FOLLOWS:**

**Fire Flow Table 1\***

The requirements of Fire Flow Table 1 apply to rural areas where public, private, or central water is not available and where specified elsewhere in these Regulations.

Occupancy	Maximum Aggregate Gross Square Footage	Provide a fire alarm system per 6-3.1.4	Minimum Set Back from all property lines	Maximum Height	Exposure Hazard on the Same Property	Internal Fire Separation	Apply
One & Two – Family Detached Dwellings	10,000	<u>no</u>	15’	3 Stories 35’	10’+	n/a	NFPA 1142
Multi-Family & Other Residential	10,000	<u>no</u>	15’	3 Stories 35’	10’+	n/a	NFPA 1142
Rowhouses & Townhouses	10,000	<u>no</u>	15’	3 Stories 35’	10’+	2-Hr rated wall Part I Chapter 2	NFPA 1142
Assembly	5,000	<u>no</u>	15’	1 Story 15’	10’+	n/a	NFPA 1142
Assembly <sup>1</sup>	5,001 to 10,000	<u>YES</u>	15’	2 Stories 30’	10’+	n/a	NFPA 1142
Health Care Business Education	10,000	<u>no</u> <u>no</u> <u>no</u>	15’	2 Stories 30’	10’+	n/a	NFPA 1142
Storage Industrial Mercantile	5,000	<u>no</u> <u>no</u> <u>no</u>	15’	To be reviewed on an individual basis	15’+	n/a	NFPA 1142
Storage <sup>1</sup> Industrial <sup>1</sup> Mercantile <sup>1</sup>	5,001 to 10,000	<u>YES</u> <u>YES</u> <u>YES</u>	25’	To be reviewed on an individual basis	15’+	n/a	NFPA 1142
Mini-Storage	5,000	<u>no</u>	15’	2 Stories 30’	15’+	n/a	NFPA 1142
Mini-Storage	5,001 to 10,000	<u>no</u>	25’	2 Stories 30’	15’+	n/a	NFPA 1142

<sup>1</sup> A fire alarm signaling system shall be provided. See §6-3.1.4.

**AMEND THE TEXT AT THE BOTTOM OF THE FIRE FLOW TABLE 2 TO READ 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 *	10,000	n/a	500 GPM 20 PSI Residual Pressure 1 Hour Duration	1,000 feet on center
Other Residential*	10,000	n/a	1,000 GPM 20 PSI Residual Pressure 1 Hour Duration	800 feet on center
Rowhouses* & Townhouses*	10,000	2-Hr rated wall	1,000 GPM 20 PSI Residual Pressure 1 Hour Duration	800 feet on center
		Part I Chapter 2		
Assembly Health Care Business Education	10,000	n/a	1,000 GPM 20 PSI Residual Pressure 1 Hour Duration	800 feet on center
Storage Industrial Mercantile	10,000	n/a	1,500 GPM 20 PSI Residual Pressure 2 Hour Duration	800 feet on center
Mini-Storage	10,000	n/a	750 GPM 20 PSI Residual Pressure 1 Hour Duration	800 feet on center

\*Sites in New Castle County are subject to the provisions of New Castle County Code Chapter 40 Article 5 Ordinance #90-200. See §A-6-1.4.1 and §A-6-1.4.2.

### AMEND PART V, CHAPTER 1 AS FOLLOWS:

**Amend Part V, Chapter 1, §1-1.8 by revising section 1-1.8 to read as follows:**

**1-1.8 Reporting Of Fire Incidents.** Any fire brigade, department, or company shall report ~~every fire~~ all incidents to the State Fire Marshal ~~on forms provided by~~ in an electronic format acceptable to the State Fire Marshal within ten days after the end of the month in which the incident occurs.

**Amend Part V, Chapter 1, §1-2 by inserting new sections 1-2.8 through 1-2.8.4 to read as follows:**

#### **1-2.8 Gated Communities**

**1-2.8.1** Fire Department access shall be provided to all otherwise inaccessible gated communities, subdivisions, developments, or property by any other name through the use of a system or device authorized by the local Fire Chief and approved by the State Fire Marshal's Office.

1-2.8.2 The system or device required in 1-2.8.1 shall be located in an area accessible to the fire department as determined by the local Fire Chief and approved by the State Fire Marshal's Office.

1-2.8.3 The owner and/or occupant of the property requiring fire department access as specified in 1-2.8.1 and 1-2.8.2 shall maintain the approved system or device in strict accordance with the manufacturer's guidelines.

1-2.8.4 The owner and/or occupant of the property requiring fire department access shall not modify access in any manner that could prevent fire department access without obtaining prior approval from the State Fire Marshal's Office.

**AMEND PART VI, CHAPTER 3, §3-4.1 BY REVISING THE WORDING TO READ AS FOLLOWS:**

**3-4.1\* Smoke Detection Systems Required.** All new apartment buildings shall be provided with an automatic smoke detection system in the interior corridors and/or hallways and/or stairways, in accordance with ~~§7-6, except as modified by 18-3.4.2 through 18-3.4.4,~~ of the Life Safety Code, NFPA 101, and the National Fire Alarm Code, NFPA 72, as adopted and/or modified by these Regulations.

**AMEND PART VI, CHAPTER 3, BY ADDING §3-4.4 TO READ AS FOLLOWS:**

**3-4.4 Portable Fire Extinguishers.** All apartment buildings shall be provided with portable fire extinguishers, placed as follows:

3-4.4.1 At least one extinguisher with a rating of at least 2A-10BC shall be located on each stairway landing of every stairway common to two or more apartment units.

*Exception:* In lieu of the above, the owner may provide at least one extinguisher with a rating of at least 1A-10BC to each individual apartment unit.

3-4.4.2 Each hazard area (such as laundry room, storage area, etc.) shall be provided with at least one extinguisher with a minimum rating of 2A-20BC.

**AMEND PART VI, CHAPTER 3, §3-6.5 BY REVISING THE WORDING TO READ AS FOLLOWS:**

3-6.5 Effective December 17, 1997, the owner of any complex, building or buildings, ~~within 90 days from the effective date of the Regulation,~~ shall have on file with the Office of State Fire Marshal, a corrective plan of action detailing the owner's timetable for complying with the provisions of these Regulations.

**AMEND PART VI, CHAPTER 3, §3-6.7 BY REVISING THE WORDING TO READ AS FOLLOWS:**

3-6.7 Any existing apartment buildings, multi-family dwellings, etc., shall have five years from the effective date of this Regulation to be in compliance. Effective July 1, 2002, all new and existing apartment buildings, multi-family dwellings, etc., shall comply with the provisions of these Regulations.

**AMEND APPENDIX E, BY ADDING THE FOLLOWING:**

**Fire Alarm Central Station, Remote Station, or Monitoring Service or Company License.** The cost of an annual license for a Fire Alarm Central Station, Remote Station, or Monitoring Service or Company shall be \$25.00.

**Fire Alarm Signaling System Company License.** The cost of an annual license for a Fire Alarm Signaling System Company shall be \$25.00.

**Fire Alarm Signaling System Certificate Holder.** The cost of an annual certificate for a CERTIFICATE HOLDER of a Fire Alarm Signaling System Company shall be \$25.00.

**Fire Suppression System Company License.** The cost of an annual license for a Fire Suppression System Company shall be \$25.00.

**Fire Suppression System Certificate Holder.** The cost of an annual certificate for a CERTIFICATE HOLDER of a Fire Suppression System Company shall be \$25.00.

**AMEND APPENDIX E, "CERTIFICATES OF INSPECTION FOR FIRE ALARM SIGNALING SYSTEMS FEES." TO READ AS FOLLOWS:**

(a) Apartment or other multi-family dwellings:

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

(2) more than five (5) buildings per complex: \$15.00 per system for each fire alarm system up to a maximum of twenty (20) buildings. Or a total of \$300.00 per complex. Maximum fee per complex not to exceed \$300 for fire alarm systems.

**AMEND APPENDIX E, "CERTIFICATES OF INSPECTION FOR FIRE SUPPRESSION SYSTEMS FEES." TO READ AS FOLLOWS:**

(b) Apartment or other multi-family dwellings:

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

(2) more than five (5) buildings per complex: \$15.00 per system for each fire suppression system up to a maximum of twenty (20) buildings. Or a total of \$300.00 per complex. Maximum fee per complex not to exceed \$300 for fire suppression systems.

**AMEND APPENDIX E, DETAILED FEE LIST, " FIRE ALARM CERTIFICATE OF INSPECTION PER SYSTEM" TO READ AS FOLLOWS:**

Exception: Apartment or other multi-family dwellings:

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

(2) more than five (5) buildings per complex: \$15.00 per system for each fire alarm system up to a maximum of twenty (20) buildings. Or a total of \$300.00 per complex. Maximum fee per complex not to exceed \$300 for fire alarm systems.

**AMEND APPENDIX E, DETAILED FEE LIST, " FIRE SUPPRESSION CERTIFICATE OF INSPECTION PER SYSTEM" TO READ AS FOLLOWS:**

Exception: Apartment or other multi-family dwellings:

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

(2) more than five (5) buildings per complex: \$15.00 per system for each fire suppression system up to a maximum of twenty (20) buildings. Or a total of \$300.00 per complex. Maximum fee per complex not to exceed \$300 for fire suppression systems.

**AMEND APPENDIX E, DETAILED FEE LIST BY ADDING THE FOLLOWING:**

Fire Alarm Central Station, Remote

Station, or Monitoring Service or Company License - \$25.00

In House Fire Alarm Signaling System License (per system) - \$100

In House Fire Suppression System License (per system) - \$100

**8 DE Reg. 416 (9/01/04)**