

DELAWARE STATE FIRE PREVENTION COMMISSION
Statutory Authority: 16 Delaware Code, Sections 6604(1) and 6637(e)
1 DE Admin. Code 706

FINAL

ORDER

706 Specific Occupancy Requirements

AND NOW, this 15 day of March, 2011, the Delaware State Fire Prevention Commission, in accordance with 16 **Del.C.** §§6604(1) and 6637(e), for the reasons stated below enters this ORDER adopting and promulgating regulation 706 SPECIFIC OCCUPANCY REQUIREMENTS, CHAPTER 4 – RESIDENTIAL SMOKE DETECTORS (the “Regulation”).

NATURE OF PROCEEDINGS; SYNOPSIS OF THE SUBJECT AND SUBSTANCE OF THE PROPOSED REGULATION

In accordance with procedures set forth in 29 **Del.C.** Ch. 11, Subch. III and 29 **Del.C.** Ch. 101, the Delaware State Fire Prevention Commission is adopting the final Regulation To establish the rules and regulations for the installation of Hard-Wired Smoke Detectors pursuant to Delaware Code, Title16, Chapter 66, §6637.

FINDINGS OF FACT AND CONCLUSIONS

1. The objective of the Delaware State Fire Prevention Commission is to protect the general public, specifically those persons who are the direct recipients of services regulated by the Delaware State Fire Prevention Commission, from unsafe practices.
2. The Regulation reflects the policy and procedures to implement the Delaware State Fire Prevention Commission’s statutory objective.
3. The Delaware State Fire Prevention Commission has statutory authority to promulgate the Regulation pursuant to 16 **Del.C.** §§6604(1) and 6637(e).

DECISION AND ORDER CONCERNING THE REGULATION

NOW THEREFORE, under the statutory authority and for the reasons set forth above, the the Delaware State Fire Prevention Commission does hereby ORDER that the Regulation be, and that it hereby is, adopted and promulgated as set forth below. The effective date of this Order is ten days from the date of its publication in the *Delaware Register of Regulations*, in accordance with 29 **Del.C.** §10118(g).

Bob Ricker, Chairman	Tom DiCristofaro, Commissioner
David J. Roberts, Vice-Chairman	Alan Robinson, Commissioner
Marvin Sharp, Commissioner	Kevin Wilson, Commissioner

706 Specific Occupancy Requirements

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

1.0 General.

- 1.1 **Purpose.** To establish the minimum life safety requirements for Intermediate Care Facilities for the Mentally Retarded (ICFMR).
- 1.2 **Scope.** This Regulation addresses the criteria for utilizing one- and two-family dwellings, either newly constructed or renovated, as an ICFMR.
- 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 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.

Note: For purposes of clarification, these occupancies will NOT be considered Limited Care Facilities as found under the New Health Care occupancy Chapter of the Life Safety Code, NFPA 101, except when the issue of “self preservation” can not be affirmatively demonstrated.

2.0 Definitions.

“Intermediate Care Facilities For The Mentally Retarded”. Means group homes for eight (8) or fewer persons with mental retardation.

3.0 Fire Protection Required.

- 3.1 Automatic fire suppression systems, automatic sprinklers, shall be installed as applicable, pursuant to the Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes, NFPA 13D, or the Standard for the Installation of Sprinkler Systems in Residential Occupancies Up To and Including Four Stories In Height, NFPA 13R, as adopted and/or modified by these Regulations.
- 3.2 All automatic sprinkler valves shall be electronically supervised and emergency forces notification shall be in accordance with the Life Safety Code, NFPA 101, as adopted and/or modified by these Regulations.
- 3.3 Reserved.
- 3.4 Fire department notification shall be accomplished in accordance with the Life Safety Code, as adopted and/or modified by these Regulations.

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

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

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

- 3.6 Emergency lighting shall be installed in Small Facilities in accordance with the Life Safety Code, as adopted and/or modified by these Regulations.

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

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

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

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

Chapter 2 Bed and Breakfasts

1.0 General.

- 1.1 Purpose. To establish minimum fire protection requirements for Bed and Breakfasts located within one- and two-family dwellings.
- 1.2 Scope. This Regulation may be utilized in the application of reviews and approvals for occupancies commonly known as Bed and Breakfasts to be made a part of an individual's dwelling place, a one- and two-family dwelling, within the restrictions stipulated herein.
- 1.3 Application. Bed and Breakfasts in one- and two-family dwellings include buildings containing not more than two (2) dwelling units in which each living unit is occupied by members of a single family with no more than six (6) outsiders, if any, accommodated in a maximum of three (3) rooms.

2.0 General Requirements.

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

EXCEPTION: IN ALL OTHER AREAS, GAS SPACE HEATERS INSTALLED IN COMPLIANCE WITH NFPA 54, NATIONAL FUEL GAS CODE, AS ADOPTED AND/OR MODIFIED BY THESE REGULATIONS.

Note: This requirement also appears in Regulation 701, Annex B, and reappears in this specific occupancy Chapter for clarification.

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

Chapter 3 Apartment Buildings/Multi-Family Dwellings

1.0 General.

- 1.1 **Purpose.** To establish the minimum fire protection requirements for apartment buildings and multi-family dwellings.
- 1.2 **Scope.** This Regulation addresses the criteria for the installation of fire alarm signaling and smoke detection systems in apartment buildings and multi-family dwellings.
- 1.3 **Application.** The application of this Regulation pertains to all apartment buildings and multi-family dwellings.

2.0 Definitions.

"Apartment Buildings". Any multi-family residential building containing three (3) or more living units with independent cooking and bathroom facilities, whether designated as apartments, tenements, garden apartments, condominiums, or by any other name, including any existing building or structure converted to use as an Apartment Building.

"Existing Apartment Buildings". Any apartment building constructed prior to the adoption of this Regulation.

3.0 Fire Protection Systems Required in New Apartment Buildings.

- 3.1 **Fire Alarm Signaling Systems.** All new apartment buildings shall be provided with a fire alarm signaling system in accordance with the Life Safety Code, NFPA 101, as adopted and/or modified by these Regulations.

EXCEPTION: WHERE EACH DWELLING UNIT IS SEPARATED FROM OTHER CONTIGUOUS DWELLING UNITS BY FIRE BARRIERS HAVING A FIRE RESISTANCE RATING OF NOT LESS THAN ONE HOUR, AND WHERE EACH DWELLING UNIT HAS EITHER ITS OWN INDEPENDENT EXIT OR ITS OWN INDEPENDENT STAIRWAY OR RAMP DISCHARGING AT GRADE.

Note: This requirement also appears in Regulation 701, Annex B and reappears in this specific occupancy Chapter for clarification.

3.2 Local Fire Alarm Signaling Systems.

- 3.2.1 Where there is a local fire alarm system with pull stations, a sign shall be provided for each pull station. The sign shall read as follows:

LOCAL FIRE ALARM ONLY
In Case of Fire
1. Activate Pull Station
2. Dial 911 for Fire Department Response

or similar wording acceptable to the State Fire Marshal.

3.2.2 The minimum size for each sign shall be three inches high by five inches wide (3"x5").

Note: The sign should be of durable construction and affixed firmly in the immediate vicinity of each pull station. The line of lettering should be a minimum of one half inch (1/2") high and use a plain font that is easy to read.

3.3 Buildings with less than 12 individual living units are not required to provide off-site monitoring by the fire alarm signaling system for the approved, automatic sprinkler system.

Note: This requirement also appears in Regulation 701, Annex B and reappears in this specific occupancy Chapter for clarification.

4.0 Fire Protection Required in New and Existing Apartment Buildings.

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

EXCEPTION: WHERE EACH DWELLING UNIT IS SEPARATED FROM OTHER CONTIGUOUS DWELLING UNITS BY FIRE BARRIERS HAVING A FIRE RESISTANCE RATING OF NOT LESS THAN ONE HOUR, AND WHERE EACH DWELLING UNIT HAS EITHER ITS OWN INDEPENDENT EXIT OR ITS OWN INDEPENDENT STAIRWAY OR RAMP DISCHARGING AT GRADE.

Note: This requirement also appears in Regulation 701, Annex B and reappears in this specific occupancy Chapter for clarification.

4.1.1 All required corridor smoke detection systems shall initiate the building fire alarm signaling system.

4.2 A corridor smoke detection system shall be installed in all apartment buildings in accordance with the Life Safety Code, NFPA 101, as adopted and/or modified by these Regulations.

Note: This requirement also appears in Regulation 701, Annex B and reappears in this specific occupancy Chapter for clarification.

4.3 **Multiple Station Smoke Detectors.** In each apartment or residential unit of an apartment building or multi-family residential occupancy, hardwired, battery back-up, single or multiple station smoke detectors shall be installed according to the following:

4.3.1 One in each living unit located near the bedroom area(s); and

4.3.2 One in each sleeping room and/or bedroom.

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

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

EXCEPTION: IN LIEU OF THE ABOVE, THE OWNER MAY PROVIDE AT LEAST ONE EXTINGUISHER WITH A RATING OF AT LEAST 1A-10BC TO EACH INDIVIDUAL APARTMENT UNIT.

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

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

5.0 Heating, Ventilating, and Air Conditioning Equipment.

Unvented fuel-fired heating equipment shall be prohibited in bathrooms and sleeping areas

EXCEPTION: IN ALL OTHER AREAS, GAS SPACE HEATERS INSTALLED IN COMPLIANCE WITH NFPA 54, NATIONAL FUEL GAS CODE, AS ADOPTED AND/OR MODIFIED BY THESE REGULATIONS.

Note: This requirement also appears in Regulation 701, Annex B and reappears in this specific occupancy Chapter for clarification.

6.0 Automatic Door Closing Devices Required On All Existing and New Apartment Buildings

- 6.1 All living unit doors shall be required to be provided with self closing devices that will have the force to bring the door to the fully closed position upon being released after opening.

EXCEPTION: DOORS LEADING DIRECTLY TO THE EXTERIOR.

- 6.2 Such doors as required in §6.1 shall be provided with a positive latching device that will cause the door to remain in the closed, latched position.
- 6.3 Such doors as required in §6.1 shall be a minimum of solid core construction, with only the minimum “peep-hole” opening therein; or in the case for new construction shall be in compliance with the appropriate specification of the State Fire Prevention Regulations in effect at the time of construction.
- 6.4 The State Fire Marshal, upon finding that the living unit doors do not meet the minimum solid core construction, as specified in §6.3 shall be authorized to write an order for the replacement of such doors, and will have a compliance date that is the same as the order for the State Fire Prevention Commission for compliance in providing the automatic door closing devices
- 6.5 Effective December 17, 1997, the owner of any complex, building or buildings 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
- 6.6 Any violations of this Regulation shall be considered as violations of the State Fire Prevention Regulations and the State Fire Marshal will initiate such actions as specified in **16 Del.C. Ch. 66** for such violations.
- 6.7 Effective July 1, 2002, all new and existing apartment buildings, multi-family dwellings, etc., shall comply with the provisions of these Regulations.

Note: This Regulation applies only to the individual living unit entrance doors that open directly to a common interior hallway, stairway, or foyer. It is not to be applied to individual living unit doors within the living unit (such as bedroom doors), nor is it to be applied to the individual living unit doors that lead directly outside (such as a balcony or other exterior exit).

The required “positive latching device” as found in §6.2 of this Regulation is defined to be the standard type door set with knob, bolt, and keeper that holds a door in a closed position.

The required self closing device shall be of a type and number and an arrangement acceptable to the State Fire Marshal, whether a door closure or spring hinges or other like mechanisms are utilized.

Both the self closing devices and positive latching requirements are a performance standard and a functional test will determine that the door and mechanisms are in compliance with this Regulation.

Additionally, when requiring solid core construction, existing installations with a 1-3/4 inch thick solid bonded wood core door are considered satisfactory.

The terminology in this Regulation is consistent with and may in fact replicate the generally accepted definition and identification for such doors as to be found in nationally recognized codes, standards and specifications, including building codes, and door manufacturing industries.

Chapter 4 Residential Smoke Detectors

1.0 General.

- 1.1 **Purpose.** This Regulation is intended to be supplemental in nature to the **16 Del.C., Ch. 66**.
- 1.2 **Scope.** This Regulation addresses the criteria for the installation of smoke detectors in all residential occupancies.
- 1.3 **Application.** The application of this Regulation applies to all residential occupancies, used wholly or in part as a home, residence, dwelling, or sleeping place for one or more persons, either permanent or transient, including, but not limited to, any one- and two-family dwelling, mobile home, modular home, townhouse; lodging, rooming or boarding house; hotel, motel, bed and breakfast facility; dormitory, apartment or multi-family dwelling; board and care facility; or a residential occupancy by any other name, be it rented, leased or owned. (**16 Del.C. §6631**)

2.0 Definitions.

“Compliance Date”. The date by which any required new installation or retrofit work must be completed.

“Existing Buildings”. Any building erected or built prior to the effective date of the legislation. (**16 Del.C. §6631(3)**).

“Effective Date of Legislation”. 16 Del.C., Chapter 66, relating to Smoke Detectors was enacted on June 30, 1993.

“Interconnected Smoke Detectors”. Two or more electrically operated smoke detectors wired in such a manner so that the operation of any single smoke detector shall cause the alarm in all the smoke detectors within the dwelling to sound.

“Monitored Battery Power Supply”. The type of battery operated smoke detector that is constructed in such a manner as to provide a warning beep or tone when the installed battery is reaching the end of its useful electric charge.

“Sleeping Area”. Any room or group of rooms utilized as a sleeping place, that are accessed from a common corridor or hallway. Sleeping areas separated by any other living space shall be considered to be a separate sleeping area.

3.0 One- and Two-Family Dwellings, Mobile Homes, Modular Homes, and Townhouses.

- 3.1 Each new one- and two-family dwelling, mobile home, modular home, and townhouse built after the effective date of this legislation shall have smoke detection devices and/or smoke detection systems installed according to the following requirements:
 - 3.1.1 Shall be installed outside each separate sleeping area in the immediate vicinity of the bedrooms, and;
 - 3.1.2 Shall be installed on each additional story of the family living unit, including basements, but excluding crawl spaces and unfinished attics, if nothing is stored or kept in such areas, and;
 - 3.1.3 The smoke detection devices or system shall be interconnected, so that operation of any smoke detection device shall cause the alarm-sounding devices in all smoke detectors within the dwelling or building to sound, and;
 - 3.1.4 The smoke detection devices shall be hardwired into the building or occupancy’s electrical system in accordance with the provisions of the National Electric Code, NFPA 70, as adopted and/or modified by these Regulations, and;
 - 3.1.5 Each hardwired, interconnected smoke detection device in the immediate vicinity of each bedroom area shall be equipped with a built-in battery back-up power supply, or one single station, battery operated smoke detection device shall be installed in the immediate vicinity of each bedroom area, in addition to the hardwired smoke detection device. (16 Del.C. §6632(a)(1) and §6632(a)(2))
- 3.2 Each one- and two-family dwelling, mobile home, modular home, and townhouse erected or built prior to the effective date of this legislation shall have smoke detection devices and/or smoke detection systems installed according to the following requirements:
 - 3.2.1 Shall be installed outside each separate sleeping area in the immediate vicinity of the bedrooms, and;
 - 3.2.2 Shall be installed on each additional story of the family living unit, including basements, but excluding crawl spaces and unfinished attics, if nothing is stored or kept in such areas, and;
 - 3.2.3 The smoke detection devices may be single-station, individual smoke detection devices approved by Underwriters Laboratories or the Factory Mutual Association, and powered by a monitored battery power supply. (16 Del.C. §6632(a)(3)).
- 3.3 Nothing contained in this section shall prohibit the owner of any one- and two-family dwelling, mobile home, modular home, or townhouse from installing an interconnected smoke detection system, in accordance with §3.1 of the Regulation. (16 Del.C. §6632(b)).

4.0 Other Residential Occupancies.

- 4.1 Each new and existing lodging, rooming, or boarding house; hotel, motel, or bed and breakfast facility; dormitory, apartment, or multi-family dwelling; board and care facility; or a residential occupancy by any other name shall have smoke detection devices and/or smoke detection systems installed in accordance with the following requirements:
 - 4.1.1 Shall be installed outside each separate sleeping area in the immediate vicinity of the bedrooms, and;
 - 4.1.2 Shall be installed in each bedroom and/or sleeping area, and;
 - 4.1.3 Shall be installed on each additional story of the occupancy, including basements and corridors, hallways and stairwells, on each floor according to the standards and specifications of the National Fire Alarm Code, NFPA 72, as adopted and/or modified by these Regulations, but excluding crawl spaces and unfinished attics, if nothing is stored or kept in such areas, or;
 - 4.1.4 Smoke detection devices and/or systems shall be installed in conformance with those provisions of the Life Safety Code, NFPA 101, as adopted and/or modified by these Regulations, for each particular occupancy, and;

- 4.1.5 The smoke detection devices or system listed in §4.1.1, §4.1.2 and §4.1.3, except as otherwise specified herein, shall be interconnected, so that operation of any smoke detection device shall cause the alarm-sounding devices in all smoke detectors within the building, occupancy or within a separate zoned area to sound or, it shall initiate the building fire alarm system to provide an audible warning to all occupants of the building, and;
- 4.1.6 The smoke detection devices and/or systems shall be hardwired into the electrical system of the building or occupancy in accordance with the National Electric Code, NFPA 70, as adopted and/or modified by these Regulations. (16 Del.C. §6633(a)(1) and (a)(2))
- 4.2 With the approval of the State Fire Marshal, smoke detection devices in individual sleeping areas may be exempted from the requirement that they be interconnected if the building or occupancy is provided with an automatic smoke detection system in the hallways, corridors, and stairwells, or is connected to a building fire alarm system which will activate an alarm which is sufficiently audible to warn the occupants of the building of the impending danger of fire or hazard to life. This smoke detection system and/or fire alarm system shall be installed in accordance with the National Fire Alarm Code, NFPA 72, as adopted and/or modified by these Regulations and this Statute. (16 Del.C. §6633(d)).

Note: While not specifically addressed in this Chapter, it is the expressed intent that smoke detection devices be required in individual sleeping rooms pursuant to the standards of the Life Safety Code, NFPA 101, and the National Fire Alarm Code, NFPA 72, as adopted and/or modified by these Regulations, pursuant to the language of this §4.2. If an exception is attainable, then the inference is to be made that the devices are required.

- 4.3 For all buildings or occupancies which are required to install smoke detection devices and/or systems under §4.1 or §4.2 of this Chapter, that do not have an auxiliary, emergency, or back-up power supply, each smoke detection device or smoke detection system shall utilize the type of smoke detection device, or system that has a built-in battery back-up power supply. (16 Del.C. §6633(e)).
- 4.4 Where there is a conflict between installation requirements, the more strict of the installation specifications for a particular occupancy shall apply. (16 Del.C. §6633(b)).
- 4.5 Plans and specifications for all smoke detection devices and systems required under §4.1 and §4.2 of this Chapter shall be submitted to the Office of State Fire Marshal, prior to installation, for review and approval. (§6633(f)).
- 4.6 It shall be the responsibility of the owner of a residential occupancy listed in §4.1 to install and maintain smoke detection devices as required by this Regulation.

EXCEPTION: WHERE THERE IS A TENANT OF A RENTED OR LEASED OCCUPANCY, STRUCTURE, OR BUILDING REQUIRED TO HAVE SMOKE DETECTION DEVICES AND/OR SMOKE DETECTION SYSTEMS, AS REQUIRED IN THIS CHAPTER, AND THE RENTAL, LEASE AGREEMENT, OR CONTRACT IS FOR A PERIOD OF ONE MONTH OR MORE, SUCH TENANT SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ANY SMOKE DETECTION DEVICES, WITH RESPECT TO MAINTAINING AN OPERABLE BATTERY IN THE SMOKE DETECTION DEVICE, WITHIN THE INDIVIDUAL OR RENTED OR LEASED UNIT.

5.0 Compliance Dates.

- 5.1 For each newly erected or constructed one- and two-family dwelling, mobile home, modular home, or townhouse, the compliance date shall be the effective date of this Legislation. (16 Del.C. §6634(a)).
- 5.2 For all existing one- and two-family dwellings, mobile homes, modular homes, or townhouses, the compliance date shall be July 1, 1994. (16 Del.C. §6634(b)).
- 5.3 For all other newly erected or constructed residential occupancies listed in §4.0 of this Chapter, the compliance date shall be the effective date of the Legislation. (16 Del.C. §6634(c)).
- 5.4 For all other existing residential occupancies, erected or constructed prior to the effective date of the Legislation, the compliance date shall be July 1, 1996. (16 Del.C. §6634(d)).

6.0 Hard-Wired Smoke Detector Program.

- 6.1 Purpose: To establish the rules and regulations for the installation of Hard-Wired Smoke Detectors pursuant to 16 Del.C. §6637 (Delaware Fire Detection Fund).
- 6.2 Application: This Regulation applies to owner-occupied, existing, one-family and two-family dwellings that are not equipped with smoke alarms.

6.2.1 Approval for installations shall be established by the Office of the State Fire Marshal and priority will be afforded to dwellings with handicapped children, handicapped adults, infirm residents, and residents 62 years of age and older.

6.3 Installation

6.3.1 Upon approval, hard wired single station smoke detectors with battery back-up shall be installed in the hallway of each sleeping area and on each additional story of family living units, including basements.

6.3.2 The smoke detection device is to be hard-wired into the building's electrical system in accordance with the provisions of the National Electrical Code (NFPA 70).

6.3.3 Owners shall have the opportunity to choose a licensed and insured electrician/installer from a list maintained by the Office of the State Fire Marshal.

6.3.4 The electrician/installer will contact the homeowner to make the necessary arrangements for the scheduling of the installation of hard-wired smoke detectors.

6.3.4.1 The sole responsibility for the installation of a hard-wired smoke detector will be between the homeowner and the electrician/installer.

6.3.5 The installation shall be completed within thirty (30) days from the day the electrician/installer has been chosen. The homeowner will be responsible to provide access to the contractor for installation within the allotted time.

6.3.6 If a hard-wired smoke detector cannot be installed due to existing wiring conditions, a Single Station Battery Operated Smoke Alarm will be issued to the occupant as an alternative device.

6.3.6.1 The electrician/installer will notify the Office of the State Fire Marshal if these wiring conditions exist.

6.3.6.2 The Office of the State Fire Marshal will handle the projected change in the installation.

6.3.7 Upon completion the electrician/installer shall contact an Electrical Inspection Agency, recognized by the Office of the State Fire Marshal. The Electrical Inspection Agency shall inspect the wiring connected to the owner's electrical system for final approval.

6.3.7.1 The homeowner will be notified when the electrical inspection will be conducted. The homeowner will be responsible to provide access for the Electrical Inspector to make the required inspection.

6.3.8 Upon approval by the Electrical Inspection Agency, the electrician/installer shall forward a copy of the approval certificate, along with an invoice for the installation to the Office of the State Fire Marshal for approval for payment.

6.4 Authorized Electrician/Installers

6.4.1 Electricians providing the installation shall be insured and have an active license to do electrical work in the State of Delaware (Title 24, Chapter 14 of the Delaware Code).

6.4.2 Electricians/installers shall be from a list of installers maintained and updated by the Office of the State Fire Marshal.

6.4.3 Electricians shall be added to the list of installers upon the Office of the State Fire Marshal receiving a Letter of Acceptance form.

6.4.3.1 The Letter of Acceptance shall be required to be renewed annually.

6.4.3.2 The Letter of Acceptance shall be required to be signed, dated, and notarized.

6.4.3.3 The Letter of Acceptance shall be accompanied with a copy of the electricians/company's current or updated insurance

6.4.3.4 The Letter of Acceptance shall be accompanied with a performance bond in the amount of \$5000.

6.4.3.4.1 Once the limit of \$5000 has been reached, subsequent performance bond increases shall be in increments of \$1000 before other installations are assigned.

6.4.4 Prior to submitting a Letter of Acceptance, the electrician/company shall confirm the current installation amount established by the Office of the State Fire Marshal.

6.4.4.1 The current installation amount shall establish unit prices for all installations.

6.4.4.2 Separate unit prices will be established for single detector installations, additional detectors, and minimal charge for showing up at locations where an installation could not be achieved. There will be separate units prices established for each County.

6.4.5 The Office of the State Fire Marshal will confirm it has received the required information. The electrician/company will then be added to the list of hardwired smoke detector installers pursuant to 16 **Del.C.** §6637(d).

6.5 Funding:

- 6.5.1 Pursuant to 16 **Del.C.** §6637(b), a special fund of the State has been created and is known as the "Delaware Fire Detection Fund
- 6.5.2 Pursuant to 16 **Del.C.** §6637(b), all moneys, including gifts, bequests, grants or other funds from private or public sources specifically designated for the Delaware Fire Detection Fund shall be deposited or transferred to the Fire Detection Fund. Moneys in the Delaware Fire Detection Fund may be saved and deposited in an interest bearing savings or investment account.
- 6.5.3 Pursuant to 16 **Del.C.** §6637(c), moneys from the Delaware Fire Detection Fund shall be expended for the purpose of providing hard-wired smoke detectors with battery back up to Delaware residences lacking smoke detection devices.
- 6.5.4 Pursuant to 16 **Del.C.** §6637(c), any moneys received from State-appropriated funds shall only be used for owner-occupied residences.
- 6.5.5 Pursuant to 16 **Del.C.** §6637(c), any moneys derived from private sources may be used for any Delaware residences.

Chapter 5 Outdoor Tire Storage and Disposal Sites

1.0 General.

- 1.1 Purpose. To establish the minimum fire protection requirements for outdoor tire storage and disposal sites.

Note: Fire experience in outdoor storage of tires reveals a number of concerns, including:

- (a) The generation of large amounts of black smoke;
- (b) The fact that the storage is often too close to buildings on the same or adjacent premises, which causes fires in these exposed buildings;
- (c) The generation of oil during a fire where the oil contributes to the fire or where the runoff contaminates the surrounding area;
- (d) Delays in reporting fires; and
- (e) The lack of firefighting capabilities due to poor accessibility.

The fire hazards inherent in tire storage are best controlled by a positive fire prevention program that includes the objectives that a fire be contained to the pile of origin and that the exposures to other piles or associated structures be limited.

- 1.2 **Scope.** This Regulation addresses the criteria for the outdoor storage of more than 100 tires and all disposal sites. Indoor storage of tires shall be governed by the Standard for Storage of Rubber Tires, NFPA 231D, as adopted and/or modified by these Regulations.
- 1.3 **Application.** The application of this Regulation pertains to all outdoor storage of tires and all disposal sites.
- 1.4 **Permit Required.** It shall be unlawful to store tires without first obtaining a permit in accordance with Regulation 701, Chapter 3.

2.0 Definitions.

"Aisle". An accessible clear space between storage piles or groups of piles suitable for housekeeping operations, visual inspection of piling areas, and initial firefighting operations.

"Clear Space". Any area free of combustible materials. This does not preclude the storage of non-combustible materials that will not transmit an exposed fire.

"Fire Lane". A clear space suitable for firefighting access and operations by motorized fire apparatus. See also Regulation 705, Chapter 5.

"Scrap Tire". A tire that is no longer suitable for vehicular use.

"Units (Equivalent Passenger)". One average size passenger tire weighing approximately 25 pounds.

"Yard". The outdoor areas where tires and scrap tires are stored, and includes the entire area located inside the security fence.

3.0 Fire Prevention.

- 3.1 The method of stacking shall be solid piles in an orderly manner and shall include:
- 3.1.1 Fire lanes to separate piles and to provide access for effective firefighting operations; and
 - 3.1.2 Separation of yard storage from buildings and other exposures; and
 - 3.1.3 An effective fire prevention maintenance program including control of weeds, grass, and other combustible materials within the storage area; and

3.1.4 Tire storage shall be on a level area.

Note: The fire hazard potential inherent in tire storage and disposal operations can best be controlled by a positive fire prevention program. Additionally, included should be consideration of topography, since oil accumulations or runoff can be expected in a fire condition.

3.2 Appropriate steps shall be taken to limit access to the tire storage area in accordance with §5.2 of this Chapter.

4.0 Exposure Protection.

4.1 For 10,000 Units Or Less.

- 4.1.1 Maximum pile height shall be 14 feet.
- 4.1.2 Pile width and length shall not exceed 25 feet by 100 feet.
- 4.1.3 Aisle width between piles shall be a minimum of 24 feet.
- 4.1.4 The minimum distance between piles and buildings shall be 25 feet.

4.2 For More Than 10,000 Units.

- 4.2.1 Maximum pile height shall be 20 feet.
- 4.2.2 Pile width and length shall not exceed 50 feet by 100 feet.
- 4.2.3 Aisle width between piles shall be a minimum of 24 feet.
- 4.2.4 The minimum distance between piles and important buildings shall be 200 feet.
- 4.2.5 If the minimum distance required in §4.2.4 cannot be provided, a Two Hour Rated Fire Wall (Class "B" Fire Barrier) shall be provided in accordance with Regulation 702, Chapter 2. This Two Hour Rated Wall shall be equal to or exceed the height of the pile(s).

5.0 General Fire Protection.

5.1 General.

- 5.1.1 Storage or handling of tires shall not be located so as to seriously expose adjoining or adjacent properties in the event of a fire.
- 5.1.2 Weeds, grass, and similar vegetation shall be eliminated throughout the entire yard. Combustibles shall be removed as they accumulate.
- 5.1.3 Smoking shall be prohibited within the tire storage area. Other types of potential ignition sources, such as cutting and welding, heating devices, and open fires, shall be prohibited.
- 5.1.4 Suitable safeguards shall be provided to minimize the sparks from such equipment as refuse burners, boiler stacks, and vehicle exhaust.

5.2 Security Of Storage Yards.

- 5.2.1 A security fence shall be placed so as to completely enclose the yard containing outdoor tire storage. A minimum height of six feet of chain link, plus two strands of barbed wire shall be provided.
- 5.2.2 Access gate(s) shall be installed in accordance with the State Fire Marshal.
- 5.2.3 Twenty-four (24) hour per day manned security shall be provided to limit access and to provide for communications to the appropriate fire dispatch center.

EXCEPTION NO. 1: SITES STORING LESS THAN 10,000 UNITS.

EXCEPTION NO. 2: WHEN THE STATE FIRE MARSHAL DETERMINES THAT IT IS NOT NECESSARY FOR SITES STORING MORE THAN 10,000 UNITS.

5.2.4 Security lighting shall be provided with constant illumination of the yard during hours of darkness.

EXCEPTION NO. 1: SITES STORING LESS THAN 10,000 UNITS.

EXCEPTION NO. 2: WHEN THE STATE FIRE MARSHAL DETERMINES THAT IT IS NOT NECESSARY FOR SITES STORING MORE THAN 10,000 UNITS.

5.3 Storage Of Tires.

- 5.3.1 Tires shall be placed on solid, level ground.
- 5.3.2 The method of stacking shall be solid piles in an orderly manner.
- 5.3.3 The yard shall be maintained free of other combustible materials and debris.
- 5.3.4 A minimum of a 50 foot wide clear zone shall be established between the inside perimeter of the security fence and tire piles.
- 5.3.5 Earthen or other suitable barriers of a minimum height of 30 inches shall be provided to contain the potential liquid products of combustion resulting from a fire to the pile of origin.

6.0 Water Supplies.

- 6.1 A public or private water system shall be provided to supply a minimum of 1,000 gpm for a duration of three (3) hours for 10,000 units or less of tire storage.
- 6.2 A public or private water system shall be provided to supply a minimum of 2,000 gpm for a duration of three (3) hours for more than 10,000 units of tire storage.
- 6.3 Fire hydrants shall be located in accordance with the State Fire Marshal.
- 6.4 If there is a reliable source of water, such as a lake, stream, pond, or other body of water, in the vicinity of the tire storage area, a dry hydrant shall be provided, even if a public or private water system is provided.

7.0 Other.

- 7.1 Bulldozers, front-end loaders, and similar equipment acceptable to the State Fire Marshal shall be available to move tires not yet involved in the fire, to create breaks in the tire pile, or to cover burning tires with soil.
- 7.2 Pre-emergency planning shall be made with the local fire department so that fire emergencies can be properly handled in the tire storage facility.

Chapter 6 Public Assembly

1.0 General.

- 1.1 **Purpose.** This Regulation is supplemental in nature and provides a method to reasonably maintain up to the maximum occupant load in places of assembly, as defined by the Life Safety Code, NFPA 101, as adopted and/or modified by these Regulations.
- 1.2 **Scope.** This Regulation establishes a point of primary entrance and exit to places of assembly that will be utilized to control the occupant load.
- 1.3 **Application.** This Regulation applies to all places of assembly where the Office of the State Fire Marshal has established, posted, and recorded the maximum occupant load.

2.0 Primary Entrance/Exit Established.

- 2.1 The primary entrance/exit shall be the main entrance/exit for the place of assembly, as established by the State Fire Marshal.
- 2.2 The primary entrance/exit shall be the main entrance/exit that accommodates one-half of the maximum occupant load of the place of assembly.

3.0 Method of Accounting For Occupant Load.

- 3.1 Where, in the opinion of the State Fire Marshal, a place of assembly appears to be near or at the maximum occupant load, the State Fire Marshal may require that the owner of the place of assembly provide a method of accounting for the number of people that may be in the place of assembly at any given time.
- 3.2 Once the State Fire Marshal has identified a place of assembly to fall within the provisions of this Regulation, the owner must maintain the method of accounting for the occupant load for all hours of operation as established by the State Fire Marshal.
- 3.3 The method of accounting for occupant load shall be in place during such hours, as established by the State Fire Marshal, and shall be available at any time for inspection by the State Fire Marshal at the primary entrance/exit to the place of assembly.

Chapter 7 Haunted Houses

1.0 General

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

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.

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

1.4 Electrical Inspection

1.4.1 All wiring shall be completed by a licensed electrician.

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.

2.0 Construction

2.1 Haunted Houses shall only be allowed to operate on the level of exit discharge as well as one story above the level of discharge.

2.2 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.

2.3 Haunted houses shall not be allowed in windowless buildings.

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

2.5 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.

3.0 Egress

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

3.2 Exits

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.

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

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

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

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

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.

4.0 Protection

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.

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

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

4.4 Fire Company Stand-By

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.

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.

5.0 Operating Controls

5.1 Attendants:

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

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

- 5.2.1 Combustible Materials: Excelsior, straw, hay or other rapid burning materials shall be prohibited in the building.
- 5.2.2 Flammable Materials: No flammable or readily combustible materials shall be used in decorations, sets, props, costumes, etc.
- 5.2.3 No storage shall be permitted beneath stairways. All other unsafe practices are prohibited.

5.3 Ignition Sources

- 5.3.1 Open Flames: Open flames shall be prohibited in the building or within 10 feet of the building.
- 5.3.2 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.

1 DE Reg. 197 (08/01/97)

8 DE Reg. 416 (09/01/04)

10 DE Reg. 342 (08/01/06)

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

14 DE Reg. 732 (02/01/11)

14 DE Reg. 1045 (04/01/11) (Final)