



MONTGOMERY COUNTY FIRE AND RESCUE SERVICE

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FIRE CODE ENFORCEMENT SECTION

ADMINISTRATIVE INTERPRETATION 07-05

CODE REFERENCE: NFPA 1, *Uniform Fire Code*, 2006 Edition, Section 4.3

BACKGROUND: 4.3 Compliance Options.
Compliance with the goals and objectives of Section 4.1 shall be provided in accordance with either of the following:
(1) The prescriptive-based provisions per 4.3.1
(2) The performance-based provisions per 4.3.2
4.3.2 Performance-Based Option.
4.3.2.1 A performance-based option shall be in accordance with Chapter 1 through Chapter 5 of this Code.
4.3.2.2 Prescriptive requirements shall be permitted to be used as part of the performance approach, if they, in conjunction with the performance features, meet the overall goals and objectives of this Code.

INTERPRETATION: A performance approach toward sprinklering existing Group Homes housing six (6) to sixteen (16) residents will meet the life safety requirements of the hazards associated with this type of occupancy. The performance approach is attached.

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FIRE MARSHAL

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Fire Code Enforcement Section

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Chapter 1 Administration

1.1 Scope.

This Performance Design shall cover the design and installation of automatic sprinkler systems for protection against fire hazards in existing Group Homes serving six (6) to sixteen (16) occupants, not including staff, in Montgomery County, Maryland.

1.2 Purpose.

The purpose of this Performance Design shall be to provide a sprinkler system that aids in the detection and control of fires in existing Group Homes and thus provides improved protection against injury, life loss, and property damage. A sprinkler system designed and installed in accordance with this Performance Design shall be expected to prevent flashover (total involvement) in the room of fire origin, where sprinklered, and to improve the chance for occupants to escape or be evacuated. The layout, calculation, and installation of systems installed in accordance with this Performance Design shall only be performed by people knowledgeable and trained in such systems and licensed by the State of Maryland and Montgomery County.

1.3 Retroactivity.

This Performance Design shall be used for the design of all sprinkler systems for existing Group Homes. This design does not preclude the use of NFPA 13R or NFPA 13 for these existing Group Homes.

1.4 Equivalency.

Nothing in this Performance Design is intended to restrict new technologies or alternative arrangements, provided that the level of safety prescribed by the standard is not reduced.

Chapter 2 Referenced Publications

2.1 General.

The documents or portions thereof listed in NFPA 13D, 2007 edition, are referenced within this Performance Design and shall be considered part of the requirements of this document.

Chapter 3 Definitions

3.1 General.

Terms shall be defined by Montgomery County Code, Chapter 22.

Where terms are not defined in Chapter 22 they shall be defined using NFPA Official Definitions or their ordinarily accepted meanings within the context in which they are used. Merriam-Webster's Collegiate Dictionary, 11th edition, shall be the source for the ordinarily accepted meaning.

Chapter 4 General Requirements

For General Requirements refer to Chapter 4 of NFPA 13D, 2007 edition.

Chapter 5 System Components

For System Component Requirements refer to Chapter 5 of NFPA 13D, 2007 edition.

Chapter 6 Water Supply

6.1 General Provisions.

6.1.1 Every automatic sprinkler system shall have at least one automatic water supply.

6.1.2 Where stored water is used as the sole source of supply, the minimum quantity shall equal the water demand rate times eighteen (18) minutes.

6.2 Water Supply Sources.

The following water supply sources shall be considered to be acceptable:

(1) A connection to a reliable waterworks system with or without an automatically operated pump

(2) A stored water source with an automatically operated pump

(3) A well with a pump of sufficient capacity and pressure to meet the sprinkler system demand. The stored water requirement of 6.1.2 shall be permitted to be a combination of the water in the well (including the refill rate) plus the water in the holding tank if such tank can supply the sprinkler system.

6.2.1 Prior to system acceptance, a system utilizing a pump shall be tested by opening the drain/test connection. The pump shall sense the flow, turn on, and flow water for the required duration of 6.1.2 without interruption or continuous cycling of the pump.

6.2.2 Where a pump and tank is the source of supply for a fire sprinkler system but is not a portion of the domestic water system, the following shall be met:

(1) A test connection shall be provided downstream of the pump that creates a flow of water equal to the smallest sprinkler on the system. The connection shall return water to the tank.

(2) Pump motors using ac power shall be connected to a 240 V normal circuit.

(3) Any disconnecting means for the pump shall be approved.

(4) A method for refilling the tank shall be piped to the tank.

(5) A method of seeing the water level in the tank shall be provided without having to open the tank.

(6) The pump shall not be permitted to sit directly on the floor.

Chapter 7 Installation

For Installation Requirements refer to Chapter 7 of NFPA 13D, 2007 edition except for Section 7.6.

7.6 Alarms.

Waterflow alarms shall be provided on all sprinkler systems in existing Group Homes. The alarm shall be audible throughout all occupiable space and monitored by an approved central station.

Chapter 8 System Design

For System Design Requirements refer to Chapter 6 of NFPA 13D, 2007 edition, except for Section 8.6.

8.6 Location of Sprinklers.

8.6.1 Sprinklers shall be installed in all areas except where omission is permitted by 8.6.2 through 8.6.5.

8.6.2 Sprinklers shall not be required in open attached porches, carports, and similar structures.

8.6.2.1 Sprinkler coverage in existing Group Home garages shall comply with Montgomery County Administrative Interpretation 07-01AM as a minimum.

8.6.3 Sprinklers shall not be required in attics, penthouse equipment rooms, elevator machine rooms, concealed spaces dedicated exclusively to and containing only dwelling unit ventilation equipment, floor/ceiling spaces, elevator shafts, crawl spaces, and other concealed spaces that are not used or intended for living purposes and do not contain fuel-fired equipment.

8.6.4 Sprinklers shall not be required in covered unheated projections of the building at entrances/exits as long as there is another means of egress from the dwelling unit.

8.6.5 Sprinklers shall not be required for ceiling pockets that meet the following conditions:

- (1) The total volume of unprotected ceiling pocket does not exceed 100 ft³ (2.83 m³).
- (2) The entire floor under the unprotected ceiling pocket is protected by the sprinklers at the lower ceiling elevation.
- (3) Each unprotected ceiling pocket is separated from any adjacent unprotected ceiling pocket by a minimum 10 ft (3.05 m) horizontal distance.
- (4) The interior finish of the unprotected ceiling pocket is noncombustible or limited-combustible material.
- (5) Skylights not exceeding 32 ft² (2.97 m²) shall be permitted to have a plastic cover.