

MEMORANDUM

TO: Emory R. Rodgers, Deputy Director

FROM: Vernon W. Hodge, Regulatory Review Specialist

SUBJ: Sprinkler Fire Line Connection Fees of Various Localities

DATE: July 12, 2006

Outlined below are the results of our brief survey of connection fees for water lines for sprinkler systems. The survey was done in conjunction with other information being provided to the Virginia Housing Commission in their consideration of the feasibility of requiring sprinkler system in existing assisted living facilities and apartments for senior citizens. Each locality is different and many have availability fees which are different from connection fees. Also some localities permit one water line to serve both domestic water supply and fire protection equipment, so domestic line fees must be added in. It is cautioned that the information below is very general and additional research would have to be done to determine the actual charges by a locality for the fire line tap.

Sprinkler System Water Line Connection Fees for Various Localities in Virginia			
Locality	Cost for 2 Inch Line	Cost for 4 Inch Line	Cost for 6 Inch Line
City of Richmond	\$2000	\$7400	\$8400
Chesterfield County	No Connection or Availability Fee – Owner Bears Installation Costs		
Arlington County	\$3600	\$2000	\$2100
Fairfax County	No Connection Fee – Owner Bears Installation Costs		
City of Norfolk	\$5000	\$7000	\$8000
City of Chesapeake	\$8600	\$41,000	\$62,000
Hampton/Newport News	\$14,000	\$77,000	\$163,000
City of Roanoke	\$2500	\$10,000	\$10,000
City of Danville	No Connection Fee – Owner Bears Installation Costs		
City of Lynchburg	\$1000	\$1000	\$1000
City of Winchester	\$13,000	\$30,000	\$45,000
City of Virginia Beach	\$1600	\$2200	\$10,000
County of Henrico	No Connection Fee – Owner Bears Installation Costs		

Report to the Virginia Housing Commission

**A Brief History of the "Retrofit" Provisions
of the Virginia Uniform Statewide Building Code
in Relation to Consideration of Requiring Existing Apartment Buildings
for Senior Citizens and Assisted Living Facilities
to be Upgraded with Sprinkler Systems**

July 5, 2006

**Virginia Department of Housing and Community Development
Division of Building and Fire Regulation**

Purpose

To provide a history of the development of those provisions of the Virginia Uniform Statewide Building Code (USBC) requiring the upgrading or "retrofitting" of existing buildings to assist the Commission in its consideration of the need and feasibility of requiring existing apartment buildings for senior citizens and assisted living facilities to be retrofitted with sprinkler systems.

Background Existing Buildings - Retrofit Measures

In 1982, the scope of the USBC was broadened statutorily to authorize minimum regulations for existing buildings for optional enforcement by local governments. The USBC was then split into two parts; the USBC - New Construction Code and the USBC - Building Maintenance Code. During the same session of the General Assembly, but by separate action, the section of state law addressing the provisions of the USBC (§ 36-99 of the Code of Virginia) was amended to add a subsection requiring that college and university buildings containing dormitories for sleeping purposes be provided with AC-powered smoke detectors. In recognition that this was a mandate to upgrade or retrofit existing buildings and not just regulating voluntary construction, the phrase "regardless of when the building was constructed" was used in the law. The law also required the administrators of the facilities to obtain a certificate of compliance from the local building officials when the smoke detectors were installed.

In the years that followed, a number of such retrofitting provisions were added to the law in the same fashion. For instance, in 1984, § 36-99.4 of the Code of Virginia was added requiring battery or AC-powered smoke detectors to be installed in all local and regional detention homes, group homes and other residential care facilities for children or juveniles operated by the Virginia Department of Youth Services, regardless of when the buildings were constructed; and in 1988, § 36-99.5:1 of the Code of Virginia was added requiring battery or AC-powered smoke detectors to be installed in all homes for adults licensed by the Virginia Department of Social Services, regardless of when the buildings were constructed.

Similarly, in 1990 and 1995, provisions were added requiring fire suppression systems (typically sprinkler systems) in existing nursing homes (§ 36-99.9 of the Code of Virginia) and hospitals (§ 36-99.9:1 of the Code of Virginia), regardless of when such facilities were constructed. The retrofitting of sprinkler systems in existing hotels and motels resulted from the U.S. Hotel and Motel Fire Safety Act of 1990. That law provided that federal workers on travel must stay in hotels having sprinkler systems. Hotels three stories or less in height were exempt. In March of 1990, in response to the federal law, the Board of Housing and Community Development approved regulations requiring all existing hotels and motels over three stories in height to install sprinkler systems. The owners were given seven years to upgrade their buildings, unless adequate water was not available, in which case they were given seven years from the time in which adequate water did become available. At the same time, regulations were added for existing hospitals to be retrofitted with sprinklers in accordance with the 1995 state law.

Most Recent Considerations.

By Chapter 584 of the 2004 Acts of Assembly (copy provided in Appendix A-1), the General Assembly directed the Board of Housing and Community Development to add to the USBC standards for requiring fire detection and suppression systems as deemed necessary to increase the safety of persons in assisted living facilities and in residential dwelling units designed or developed and marketed to senior citizens. The Board considered regulations during its 2003 Code Change Cycle and approved regulations on November 16, 2005 requiring sprinkler protection to extend to the attics of multifamily buildings built for persons 55 years or age or older and for small assisted living facilities classified as Group I-1 facilities under the USBC. A copy of the regulations are included in Appendix A-2.

As the legislation did not specifically require the retrofitting of existing multifamily senior facilities or assisted living facilities, the Board's regulations apply only to new facilities.

Appendix A-1
(Copy of Chapter 584 of the 2004 Acts of Assembly)

Bill Tracking - 2004 session

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CHAPTER 584

An Act to amend and reenact § 36-99.5:1 of the Code of Virginia, relating to the Uniform Statewide Building Code; certain housing facilities.

[S 183]

Approved April 12, 2004

Be it enacted by the General Assembly of Virginia:

1. That § 36-99.5:1 of the Code of Virginia is amended and reenacted as follows:

§ 36-99.5:1. Smoke detectors and other fire detection and suppression systems in assisted living facilities, adult day care centers and nursing homes and facilities.

A. Battery- or AC-powered smoke detector devices shall be installed in all assisted living facilities and adult day care centers licensed by the Department of Social Services, regardless of when the building was constructed. The location and installation of the smoke detectors shall be determined by the Uniform Statewide Building Code.

The licensee shall obtain a certificate of compliance from the building official of the locality in which the facility or center is located, or in the case of state-owned buildings, from the Department of General Services.

The licensee shall maintain the smoke detector devices in good working order.

B. The Board of Housing and Community Development shall promulgate regulations in accordance with the Administrative Process Act (§ 2.2-4000 et seq.) establishing standards for requiring (i) smoke detectors and (ii) such other fire detection and suppression systems as deemed necessary by the Board to increase the safety of persons in assisted living facilities, residential dwelling units designed or developed and marketed to senior citizens, nursing homes and nursing facilities. All nursing homes and nursing facilities which are already equipped with sprinkler systems shall comply with these regulations relating to smoke detectors.

Legislative Information System

Appendix A-2

(Copy of current USBC provision for sprinklers in attics of senior facilities and Group I-1)

VIRGINIA CONSTRUCTION CODE (PART I OF THE USBC - 2003 EDITION)

Effective November 16, 2005

Chapter 9

FIRE PROTECTION SYSTEMS

Change the following definition in Section 902 of the IBC to read:

Automatic fire-extinguishing system. An approved system of devices and equipment which automatically detects a fire and discharges an approved fire-extinguishing agent onto or in the area of a fire and shall include among other systems an automatic sprinkler system, unless otherwise expressly stated.

Change Item 2 of Section 903.2.1.3 of the IBC to read:

2. In Group A-3 occupancies other than churches, the fire area has an occupant load of 300 or more.

Change Section 903.2.7 of the IBC to read:

903.2.7 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area, except in the following Group R-2 occupancies when the necessary water pressure or volume, or both, for the system is not available:

Exceptions:

1. Buildings which do not exceed two stories, including basements which are not considered as a story above grade, and with a maximum of 16 dwelling units per fire area. Each dwelling unit shall have at least one door opening to an exterior exit access that leads directly to the exits required to serve that dwelling unit.
2. Buildings where all dwelling units are not more than two stories above the lowest level of exit discharge and not more than one story below the highest level of exit discharge of exits serving the dwelling unit and a two-hour fire barrier is provided between each pair of dwelling units. Each bedroom of a dormitory or boarding house shall be considered a dwelling unit under this exception.

Add Section 903.3.1.2.2 to the IBC to read:

903.3.1.2.2 Attics. Sprinkler protection shall be provided for attics in buildings of Type III, IV or V construction in the following occupancies.

1. Group R-2 which are designed, or developed and marketed to senior citizens, 55 years of age or older.
2. Group I-1.

Add an exception to Section 905.2 of the IBC to read:

Exception: The residual pressure of 100 psi for 2-1/2 inch hose connection and 65 psi for 1-1/2 inch hose connection is not required in buildings equipped throughout with an automatic sprinkler system in accordance with section 903.3.1.1 and where the highest floor level is not more than 150 feet above the lowest level of fire department vehicle access.

Change Section 906.1 of the IBC to read:

906.1 General. Portable fire extinguishers shall be provided in occupancies and locations as required by the International Fire Code, except that portable fire extinguishers shall not be required to be installed in Group R-2 occupancies.

Change Section 907.2.1.1 of the IBC to read:

907.2.1.1 System initiation in Group A occupancies with a occupant load of 1,000 or more and in certain night clubs. Activation of the fire alarm in Group A occupancies with an occupant load of 1,000 or more and in night clubs with an occupant load of 300 or more shall initiate a signal using an emergency voice and alarm communications system in accordance with NFPA 72.

Exception: Where approved, the prerecorded announcement is allowed to be manually deactivated for a period of time, not to exceed three minutes, for the sole purpose of allowing a live voice announcement from an approved, constantly attended location.

Change Section 907.2.9 of the IBC to read:

Appendix A-3

(Sample legislative language for requiring the retrofitting of existing senior residential units and certain assisted living facilities with sprinkler systems)

§ 36-99.5:1. Smoke detectors and other fire detection and suppression systems in assisted living facilities, adult day care centers and , nursing homes and nursing facilities and standards for fire suppression systems in senior residential units and assisted living facilities .

A. Battery- or AC-powered smoke detector devices shall be installed in al assisted living facilities and adult day care centers licensed by the Department of Social Services, regardless of when the building was constructed. The location and installation of the smoke detectors shall be determined by the Uniform Statewide Building Code.

The licensee shall obtain a certificate of compliance from the building official of the locality in which the facility or center is located, or in the case of state-owned buildings, from the Department of General Services.

The licensee shall maintain the smoke detector devices in good working order.

B. The Board of Housing and Community Development shall promulgate regulations in accordance with the Administrative Process Act (§ 2.2-4000 et seq.) establishing standards for requiring (i) smoke detectors and (ii) ~~such other fire detection and suppression systems as deemed necessary by the Board to increase the safety of persons in assisted living facilities, residential dwelling units designed or developed and marketed to senior citizens, nursing homes and nursing facilities.~~ All nursing homes and nursing facilities which are already equipped with sprinkler systems shall comply with regulations relating to smoke detectors.

C. The Board of Housing and Community Development shall promulgate regulations as part of the Building Code establishing standards for fire suppression systems in all residential dwelling units designed or developed and marketed to senior citizens and in assisted living facilities licensed by the Department of Social Services where determined necessary by the Board, regardless of when the units or facilities were constructed. In the development of these standards, the Board shall seek input from relevant state agencies and other affected client groups.

Staff Notes:

- 1) The suggested change to subsection B returns the provision to the language prior to Chapter 584 of the 2004 Acts of Assembly which has a corresponding retrofit provision in § 3411.7 of the USBC.
- 2) The new subsection C does not use the language "in accordance with the Administrative Process Act" as the USBC is now exempt from some provisions of the A.P.A.