

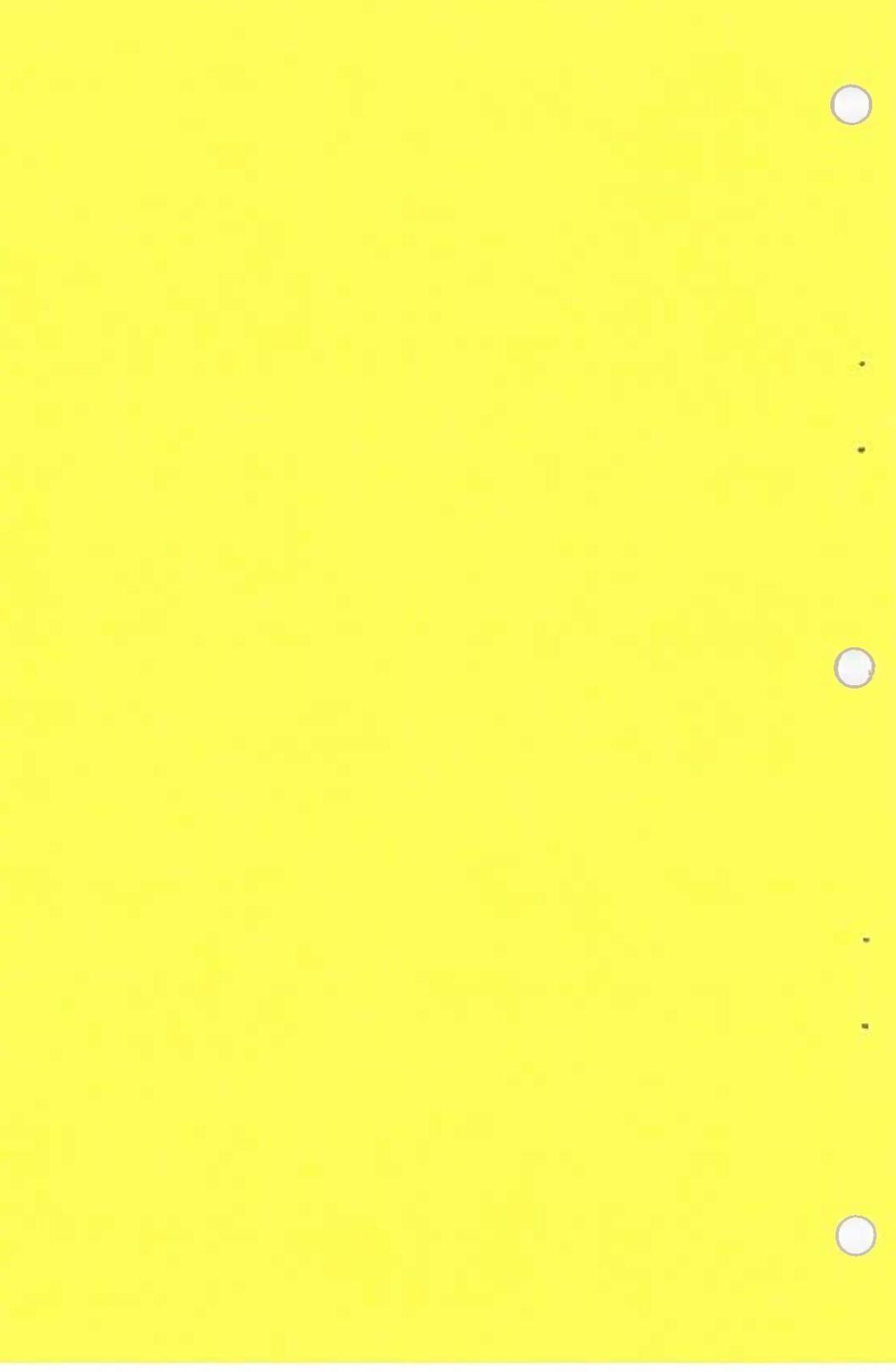
1987

Edition

VIRGINIA STATEWIDE FIRE PREVENTION CODE



COMMONWEALTH OF VIRGINIA
BOARD OF HOUSING AND
COMMUNITY DEVELOPMENT



1987 EDITION

VIRGINIA STATEWIDE FIRE PREVENTION CODE

VR 394-01-6

Adopted by the State

BOARD OF HOUSING AND COMMUNITY DEVELOPMENT

Effective March 1, 1988

Issued by the

**Division of Building Regulation
Department of Housing and Community Development
205 North Fourth Street
Richmond, VA 23219**

**(Note: This printing includes amendments
effective January 1 and March 1, 1990)**

$$a^2 - b^2 = (a+b)(a-b)$$

Let $a = 10$ and $b = 6$

$$10^2 - 6^2 = (10+6)(10-6)$$

$$100 - 36 = 16 \times 4$$
$$64 = 16 \times 4$$

$$a^2 - b^2 = (a+b)(a-b)$$

Let $a = 12$ and $b = 8$

$$12^2 - 8^2 = (12+8)(12-8)$$

$$144 - 64 = 20 \times 8$$
$$80 = 20 \times 8$$

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THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 551

LECTURE 1

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THEORY OF QUANTUM MECHANICS

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LECTURE 1

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PREFACE

SUMMARY

The 1987 edition of the Virginia Statewide Fire Prevention Code is a new set of regulations proposed for adoption by the Board of Housing and Community Development pursuant to power mandated by Section 27-94 of the Code of Virginia. The code will be a mandatory, statewide, set of regulations that must be complied with for the protection of life and property from the hazards of fire or explosion. Technical requirements of the Statewide Fire Prevention Code are based on the BOCA National Fire Prevention Code, a companion document to the BOCA National Building Code which is the Uniform Statewide Building Code. The Fire Prevention Code supersedes all fire prevention regulations heretofore adopted by local government or other political subdivisions. Local governments are empowered to adopt fire prevention regulations that are more restrictive or more extensive in scope than the Fire Prevention Code provided such regulations do not affect the manner of construction, or materials to be used in the erection, alteration, repair, or use of a building or structure. Local enforcement of this code is optional. The State Fire Marshal shall have authority to enforce the Fire Prevention Code in those jurisdictions in which the local governments do not enforce the Code. An administrative appeals system is established for resolution of disagreements between the enforcing agency and aggrieved party.

**USE OF NATIONALLY RECOGNIZED
MODEL CODES AND STANDARDS**

The Board bases the technical requirements of the Virginia Statewide Fire Prevention Code on nationally accepted model codes and standards. It makes as few amendments as possible. The purpose is to benefit the citizens of Virginia by promoting efficiency in the fire safety field. For this reason, the Board encourages anyone who believes that a technical amendment is needed to submit their proposal directly to the organization which publishes the affected model code or standard. Amendments made by such organizations will then be considered for inclusion in future editions of the Virginia Statewide Fire Prevention Code. Information on how to present proposals to the model code and standards organizations is available from:

Code Development Office
Department of Housing and Community Development
205 North Fourth Street
Richmond, Virginia 23219-1747
Telephone: (804) 371-7772

FUTURE EDITIONS

State law requires the Board of Housing and Community Development to keep the VSFPC up-to-date. The Board plans to do this by updating the VSFPC every three years when new editions of the model codes become publicly available. Suggestions for improvements are invited at any time. They should be addressed to the Board in care of the Code Development Office.

USER ASSISTANCE

Any local government may enforce the Fire Prevention Code. The State Fire Marshal shall have authority to enforce the Code in those jurisdictions in which the local governments do not enforce the Code. The local government should be consulted first for information and assistance, if they are not enforcing the Code, the Office of State Fire Marshal may be contacted. Copies of the model codes and standards referenced by the Fire Prevention Code are available for public inspection at any office of the State Fire Marshal. They may be purchased through:

Building Officials and Code Administrators International, Inc.
4051 West Flossmoor Road
Country Club Hills, Illinois 60477
Telephone: (312) 799-2300

The State Fire Marshal maintains offices in the following locations:

Suite 22, S P R Buiding
70 Main Street
Warrenton, Virginia 22186
(703) 347-7623

200 West Hull Building
554 South Main Street
Marion, Virginia 24354
(703) 783-3461

Suite 223, Koger Building, No. 5
Koger Executive Center
Norfolk, Virginia 23502
(804) 455-3820

Room 101, Fourth Street Office Building
205 North Fourth Street
Richmond, Virginia 23219-1747
(804) 786-8021

Commonwealth Building, Suite B-40
212 Church Avenue, S.W.
Roanoke, Virginia 24011
(703) 857-7360

INTERPRETATIONS

In case of doubt as to the meaning of any specific provision of the Virginia Statewide Fire Prevention Code, a request for an interpretation may be made to the State Building Code Technical Review Board. Request forms are available from the Code Development Office.

ARTICLE 1

ADMINISTRATION AND ENFORCEMENT

SECTION F-100.0 GENERAL

F-100.1 Title: These regulations shall be known as the Virginia Statewide Fire Prevention Code. Except as otherwise indicated, Fire Prevention Code or Code, shall mean the 1987 edition of the BOCA National Fire Prevention Code as herein amended.

F-100.2 Authority: The Virginia Statewide Fire Prevention Code is adopted according to regulatory authority granted the Board of Housing and Community Development by the Statewide Fire Prevention Code Act, Chapter 9, Title 27, Section 27-94 through 27-101, Code of Virginia.

F-100.3 Adoption: The Virginia Statewide Fire Prevention Code was adopted by order of the Board of Housing and Community Development on December 14, 1987. This order was prepared according to the requirements of the Administrative Process Act. The order is maintained as part of the records of the Department of Housing and Community Development, and is available for public inspection.

F-100.4 Effective date: The Virginia Statewide Fire Prevention Code shall become effective on March 1, 1988.

F-100.5 Effect on other codes: The Virginia Statewide Fire Prevention Code shall apply to all buildings and structures as defined in the Uniform Statewide Building Code Law, Chapter 6, Title 36, Code of Virginia. The Virginia Statewide Fire Prevention Code shall supersede fire prevention regulations heretofore adopted by local government or other political subdivisions. When any provision of this code is found to be in conflict with the Uniform Statewide Building Code, OSHA, Health or other applicable laws of the Commonwealth, that provision of the Fire Prevention Code shall become invalid. Wherever the words "building code" appears it shall mean the building code in effect at the time of construction.

F-100.6 Purpose: The purpose of the Virginia Statewide Fire Prevention Code is to provide statewide standards for optional local enforcement to safeguard life and property from the hazards of fire or explosion arising from the improper maintenance of life safety and fire prevention and protection materials, devices, systems and structures, and the unsafe storage, handling and use of substances, materials and devices, wherever located.

SECTION F-101.0 REQUIREMENTS

F-101.1 Adoption of model code: The following model code, as amended by Sections F-101.2 and F-101.3, is hereby adopted and incorporated in the Virginia Statewide Fire Prevention Code.

The BOCA BASIC/National Fire Prevention Code/1987 Edition
Published by: Building Officials and Code Administrators
International, Inc., 4051 West Flossmoor Road Country Club Hills,
IL 60477

F-101.2 Administrative and enforcement amendments to the referenced model code: All requirements of the referenced model code and of standards referenced therein that relate to administrative and enforcement matters are deleted and replaced by Article 1 of the Virginia Statewide Fire Prevention Code.

F-101.3 Other amendments to the referenced model code: The amendments noted in Addendum 1 shall be made to the specified articles and sections of the BOCA National Fire Prevention Code/1987 Edition for use as part of this code.

F-101.4 Limitation of application of model code: No provision of the model code shall affect the manner of construction, or materials to be used in the erection, alteration, repair, or use of a building or structure.

F-101.5 Application to Post-Uniform Statewide Building Code (USBC) Buildings: The maintenance of fire safety in buildings and structures shall be the responsibility of the local fire official or the State Fire Marshal. Egress facilities, fire protection, and built-in fire protection equipment shall be maintained in accordance with the requirements of the USBC in effect at the time the building or structure was constructed.

Exception: Buildings and structures of Use Group R-1 shall meet the provisions of Section 100.5.3 of the Uniform Statewide Building Code, Volume II, Building Maintenance Code.

F-101.6 Application to Pre-Uniform Statewide Building Code (USBC) Buildings: Pre-USBC buildings are those buildings that were not subject to the USBC when constructed. Such buildings shall be maintained in accordance with state fire and public building regulations in effect prior to March 31, 1986 as set forth in Addendum 2 and other applicable requirements of this Code. Subsequent alterations, additions, repairs, or change of occupancy classification of such buildings shall be subject to the then current edition of the USBC.

Exception: Buildings and structures of Use Group R-1 shall meet the provisions of Section 100.5.3 of the Uniform Statewide Building Code, Volume II, Building Maintenance Code.

F-101.7 Exemptions for farm structures: Farm structures not used for residential purposes shall be exempt from the provisions of the Fire Prevention Code.

SECTION F-102.0 ENFORCEMENT AUTHORITY

F-102.1 Enforcement officer: Any local government may enforce the Statewide Fire Prevention Code. The local governing body may assign responsibility for enforcement of the Statewide Fire Prevention Code to a local agency or agencies of its choice. The State Fire Marshal shall have authority to enforce the Statewide Fire Prevention Code in jurisdictions in which the local governments do not enforce the code. Upon appointment of the fire official, the Office of the State Fire Marshal shall be notified. The terms "enforcing agency" and "fire official" are intended to apply to the agency or agencies to which responsibility for enforcement has been assigned. However, the terms "building official" or "building department" apply only to the local building official or building department.

F-102.1.2 Modifications to regulations in Addendum 2: In those localities choosing to enforce the Statewide Fire Prevention Code, the fire official shall have the same authority to grant modifications of the regulations in Addendum 2 as is delegated to the Chief Fire Marshal.

F-102.2 Qualifications of local enforcing agency personnel: The local government shall establish qualifications for the fire official and his assistants, adequate to insure proper enforcement of the Statewide Fire Prevention Code. (Note: It is recommended that the fire official have at least five years of related experience. Consideration should be given for selection and maintenance of enforcing agency personnel by using certification programs offered by the Department of Housing and Community Development, Department of Fire Programs, and ETS/-NFPA.)

F-102.3 Inspections: The fire official may inspect all buildings, structures and premises except single family dwellings, dwelling units in two family and multi-family dwellings, and farm structures as often as may be necessary for the purpose of ascertaining and causing to be corrected any conditions liable to cause fire, contribute to the spread of fire, interfere with fire fighting operations, endanger life or any violations of the provisions or intent of this code or any other ordinance affecting fire safety.

F-102.4 Right of entry: Whenever necessary for the purpose of enforcing the provisions of this code, or whenever the fire official has reasonable cause to believe that there exists in any structure or upon any premises, any condition which makes such structure or premises unsafe, the fire official may enter such structure or premises at all reasonable times to inspect the same or to perform any duty imposed upon the fire official by this code; provided that if such structure or premises be occupied, the fire official shall first present proper credentials and request entry. If such entry is refused, the fire official shall have recourse to every remedy provided by law to secure entry.

F-102.5 Coordinated inspections: Whenever in the enforcement of the Statewide Fire Prevention Code or another code or ordinance, the responsibility of more than one enforcement official may be involved, it shall be their duty to coordinate their inspections and administrative orders as fully as practicable so that the owners and occupants of the structure shall not be subjected to visits by numerous inspectors nor multiple or conflicting orders. Whenever an inspector from any agency or department observes an apparent or actual violation of some provision of some law, ordinance or code of the jurisdiction, not within the inspector's authority to enforce, the inspector shall report the findings to the official having jurisdiction in order that such

official may institute the necessary corrective measures. (Note: Attention should be directed to Section 36-105, Code of Virginia, which states in part, "The building official shall coordinate all reports with inspections for compliance of the Building Code, from fire and health officials DELEGATED such authority, prior to issuance of an occupancy permit." (Emphasis added))

F-102.6 Fire records: The fire official shall keep a record of all fires and all facts concerning the same, including investigation of findings and statistics and information as to the cause, origin and the extent of such fires and the damage caused thereby. The fire official shall also keep records of reports of inspections, notices and orders issued and such other matters as directed by the local government. Records may be disposed of in accordance with the provisions of the Virginia Public Records Act and, (a) after retention for twenty years in the case of arson fires, (b) after retention for five years in non-arson fires, and (c) after retention for three years in the case of all other reports, notices, and orders issued.

F-102.7 Administration liability: The local enforcing agency personnel shall not be personally liable for any damages sustained by any person in excess of the policy limits of errors and omissions insurance, or other equivalent insurance obtained by the locality to insure against any action that may occur to persons or property as a result of any act required or permitted in the discharge of official duties while assigned to the department as an employee. The fire official or his subordinates shall not be personally liable for costs in any action, suit or proceedings that may be instituted in pursuance of the provisions of the Statewide Fire Prevention Code as a result of any act required or permitted in the discharge of official duties while assigned to the enforcing agency as an employee, whether or not said costs are covered by insurance. Any suit instituted against any officer or employee because of an act performed in the discharge of the Statewide Fire Prevention Code may be defended by the enforcing agency's legal representative. The State Fire Marshal or his subordinates shall not be personally liable for damages or costs sustained by any person when the State Fire Marshal or his subordinates are enforcing this code as part of their official duties under Section F-102.1.

F-102.8 Rules and regulations: Local governments may adopt fire prevention regulations that are more restrictive or more extensive in

scope than the Statewide Fire Prevention Code provided such regulations are not more restrictive than the Uniform Statewide Building Code and do not affect the manner of construction, or materials to be used in the erection, alteration, repair, or use of a building or structure.

F-102.9 Procedures or requirements: The local governing body may establish such procedures or requirements as may be necessary for the enforcement of the Statewide Fire Prevention Code.

F-102.10 Control of conflict of interest: The minimum standards of conduct for officials and employees of the enforcing agency shall be in accordance with the provisions of the Virginia Comprehensive Conflict of Interest Act.

SECTION F-103.0 DUTIES AND POWERS OF THE FIRE OFFICIAL

F-103.1 General: The fire official shall enforce the provisions of the Statewide Fire Prevention Code as provided herein and as interpreted by the State Building Code Technical Review Board in accordance with Section 36-118, Code of Virginia. (Note: Investigation of fires is governed by Section 27-30 et. seq., Code of Virginia.)

F-103.2 Notices and orders: The fire official may issue all necessary notices or orders to ensure compliance with the requirements of the Statewide Fire Prevention Code for the protection of life and property from the hazards of fire or explosion.

F-103.3 Delegation of duties and powers: The fire official may delegate duties and powers subject to any limitations imposed by the local government, but shall be responsible that any powers and duties delegated are carried out in accordance with the Code.

SECTION F-104.0 PERMITS

F-104.1 General: It shall be unlawful to engage in any business activity involving the handling, storage or use of hazardous substances, materials or devices; or to maintain, store or handle materials; to conduct processes which produce conditions hazardous to life or property; or to establish a place of assembly without first notifying the local fire official. Permits may be required, by the local fire official,

according to Section F-104.2.

F-104.1.1 State permits: The State Fire Marshal will not issue permits under the Statewide Fire Prevention Code except those required under Article 26, Explosives, Ammunition and Blasting Agents.

F-104.1.2 Local permits: In those jurisdictions that enforce the Statewide Fire Prevention Code, the Fire Official shall issue permits as required by Article 26, Explosives, Ammunition and Blasting Agents.

F-104.2 Permits required: Permits shall be obtained, when required, from the local fire official. Inspection or permit fees may be levied by the local governing body in order to defray the cost of enforcement and appeals in accordance with Section 27-98 of the Code of Virginia. Permits shall be available to the fire official upon request.

F-104.3 Application for permit: Application for a permit required by this code shall be made to the local fire official in such form and detail as the local fire official shall prescribe.

F-104.4 Action on application: Before a permit is issued, the local fire official or the fire official's designated representative shall make or cause to be made such inspections or tests as are necessary to assure that the use and activities for which application is made complies with the provisions of this code.

F-104.5 Conditions of permit: A permit shall constitute permission to maintain, store or handle materials, or to conduct processes which produce conditions hazardous to life or property in accordance with the provisions of this code. Such permission shall not be construed as authority to violate, cancel or set aside any of the provisions of this code. Said permit shall remain in effect until revoked, or for such period of time specified on the permit. Permits are not transferable and any change in use, operation or tenancy shall require a new permit. (Note: For rules and regulations governing the disposal of hazardous materials contact the Virginia Department of Waste Management.)

F-104.6 Approved plans: Plans approved by the building and fire officials are approved with the intent that they comply in all respects to this code. Any omissions or errors on the plans do not relieve the applicant of complying with all applicable requirements of this code.

F-104.7 Revocation of permit: The local fire official may revoke a permit or approval issued under the provisions of this code if upon inspection any violation of the code exists, or if conditions of the permit have been violated, or if there has been any false statement or misrepresentation as to material fact in the application, data or plans on which the permit or approval was based.

F-104.8 Suspension of permit: Any permit issued shall become invalid if the authorized activity is not commenced within six months after issuance of the permit, or if the authorized activity is suspended or abandoned for a period of six months after the time of commencement.

F-104.9 Payment of fees: A permit shall not be issued until the designated fees have been paid, when required.

SECTION F-105.0 APPEAL TO BOARDS OF APPEALS

F-105.1 Local appeals: Every locality electing to enforce this code shall establish a local board of appeals as required by Section 27-98, Code of Virginia. Appeals to the local board may be made by the person cited for violation when aggrieved by any decision or interpretation of the local fire official made under the provisions of this code. The local board of appeals shall consist of at least five members who are qualified by experience and training to rule on matters pertaining to building construction and fire prevention. The local board of appeals shall be appointed by the local governing body and shall hold office in accordance with the terms of appointment. The local appeal board shall operate in accordance with the applicable provisions of the Administrative Processes Act, Section 9-6.14, Code of Virginia. All local board hearings shall be open to the public. All resolutions or findings of the local board shall be in writing and made available for public viewing. The local board shall meet within twenty days upon receipt of application. Appeal from the application of the code by the State Fire Marshal shall be made directly to the State Building Code Technical Review Board.

F-105.1.1 Grounds for appeal: The owner or occupant of a building may appeal a decision of the fire official to the local Board of Appeals when it is claimed that:

1. The fire official has refused to grant a modification of the

provisions of the Code;

2. The true intent of this Code has been incorrectly interpreted;
3. The provisions of this Code do not fully apply;
4. The use of a form of compliance that is equal to or better than that specified in this Code has been denied.

F-105.2 Application: An application for appeal must be submitted, in writing, to the board of appeals within seven working days upon receipt of notice or order of the fire official.

F-105.3 Decision and notification: Every action of the Board on an appeal shall be by resolution. Certified copies shall be furnished to the appellant and the fire official.

F-105.4 Decision: The fire official shall take immediate action in accordance with the decision of the Board.

F-105.5 Appeal to the State Building Code Technical Review Board: Any person aggrieved by a decision of the Local Board of Appeals who was a party to the appeal, or any officer or member of the governing body of the local jurisdiction, may appeal to the State Building Code Technical Review Board. Application for review shall be made to the State Building Code Technical Review Board within 5 days of receipt of the decision of the local appeals board by the aggrieved party.

F-105.6 Enforcement of decision: Upon receipt of the written decision of the State Building Code Technical Review Board, the fire official shall take immediate action in accordance with the decision.

F-105.7 Court review: Decisions of the State Building Code Technical Review Board shall be final if no appeal is made. An appeal from the decision of the State Building Code Technical Review Board may be presented to the court of the original jurisdiction in accordance with the provisions of the Administrative Process Act, Article 4, Title 9-6.14:1 of the Code of Virginia.

SECTION F-106.0 ORDERS TO ELIMINATE DANGEROUS OR HAZARDOUS CONDITIONS

F-106.1 General: Whenever the fire official or the fire official's designated representative shall find in any building, structure or upon any premises dangerous or hazardous conditions or materials as

follows, the fire official shall order such dangerous conditions or materials to be removed or remedied in accordance with the provisions of this code:

1. Dangerous conditions which are liable to cause or contribute to the spread of fire in or on said premises, building or structure or endanger the occupants thereof.
2. Conditions which would interfere with the efficiency and use of any fire protection equipment.
3. Obstructions to or on fire escapes, stairs, passageways, doors or windows, liable to interfere with the egress of occupants or the operation of the fire department in case of fire.
4. Accumulations of dust or waste material in air conditioning or ventilating systems or grease in kitchen or other exhaust ducts.
5. Accumulations of grease on kitchen cooking equipment, or oil, grease or dirt upon, under or around any mechanical equipment.
6. Accumulations of rubbish, waste, paper, boxes, shavings, or other combustible materials, or excessive storage of any combustible material.
7. Hazardous conditions arising from defective or improperly used or installed electrical wiring, equipment or appliances.
8. Hazardous conditions arising from defective or improperly used or installed equipment for handling or using combustible, explosive or otherwise hazardous materials.
9. Dangerous or unlawful amounts of combustible, explosive or otherwise hazardous materials.
10. All equipment, materials, processes or operations which are in violation of the provisions and intent of this code.

F-106.2 Maintenance: The owner shall be responsible for the safe and proper maintenance of the building, structure, premises or lot at all times. In all new and existing buildings and structures, the fire protection equipment, means of egress, alarms, devices and safeguards required by the Uniform Statewide Building Code and other jurisdictional ordinances, shall be maintained in a safe and proper operating condition. (Note: Also see Sections F-502.6 and F-502.6.1 of this code for further information.)

F-106.3 Occupant responsibility: If an occupant of a building creates conditions in violation of this code, by virtue of storage, handling and use of substances, materials, devices and appliances, the occupant shall be held responsible for the abatement of said hazardous conditions.

F-106.4 Unsafe buildings: All buildings and structures that are or shall hereafter become unsafe or deficient in adequate exit facilities or which constitute a fire hazard, or are otherwise dangerous to human life or the public welfare, or by reason of illegal or improper use, occupancy or maintenance or which have sustained structural damage by reason of fire, explosion, or natural disaster shall be deemed unsafe buildings or structures. A vacant building, or portion of a building, unguarded or open at door or window, shall be deemed a fire hazard and unsafe within the meaning of this code. Unsafe buildings shall be reported to the building or maintenance code official who shall take appropriate action deemed necessary under the provisions of the Uniform Statewide Building Code Volume I New Construction Code or Volume II Building Maintenance Code to secure abatement by repair and rehabilitation or by demolition.

F-106.5 Evacuation: When, in the opinion of the fire official, there is actual and potential danger to the occupants or those in the proximity of any building, structure or premises because of unsafe structural conditions, or inadequacy of any means of egress, the presence of explosives, explosive fumes or vapors, or the presence of toxic fumes, gases or materials, the fire official may order the immediate evacuation of said building, structure or premises. All of the occupants so notified shall immediately leave the building, structure or premises and persons shall not enter, or reenter, until authorized to do so by the fire official.

F-106.6 Unlawful continuance: It is deemed a violation of the Statewide Fire Prevention Code for any person to refuse to leave, interfere with the evacuation of the other occupants or continue any operation after having been given an evacuation order except such work as that person is directed to perform to remove a violation or unsafe condition.

F-106.7 Notice of violation: Whenever the fire official observes an apparent of actual violation of a provision of this code or ordinance under the fire official's jurisdiction, the fire official shall prepare a written notice of violation describing the condition deemed unsafe and specifying time limits for the required repairs or improvements to be made to render the building, structure or premises safe and secure. The written notice of violation of this code shall be served upon the owner, a duly authorized agent or upon the occupant or other person responsible for the conditions under violation. Such notice of violation

shall be served either by delivering a copy of same to such persons by mail to the last known post office address, delivered in person or by delivering it to and leaving it in the possession of any person in charge of the premises, or in the case such person is not found upon the premises, by affixing a copy thereof, in a conspicuous place at the entrance door or avenue of access; and such procedure shall be deemed the equivalent of personal notice.

F-106.8 Issuing summons for violation: In those localities where the fire official or his designated representative has been certified in accordance with Section 27-34.2, of the Code of Virginia, a summons may be issued in lieu of the above mentioned notice of violation or the provisions of Section F-106.9 may be invoked.

F-106.9 Failure to correct violations: If the notice of violation is not complied with in the time specified by the fire official, the fire official shall request the legal counsel of the jurisdiction to institute the appropriate legal proceedings to restrain, correct or abate such violation or to require removal or termination of the unlawful use of the building or structure in violation of the provisions of this code or of any order or direction made pursuant thereto. The local law enforcement agency of the jurisdiction shall be requested by the fire official to make arrests for any offense against this code or orders of the fire official affecting the immediate safety of the public when the fire official is not certified in accordance with Section 27-34.2, of the Code of Virginia.

F-106.10 Penalty for violation: Violations are a Class 1 misdemeanor in accordance with Section 27-100 of the Code of Virginia. Each day that a violation continues, after a service of notice as provided for in this code, shall be deemed a separate offense.

F-106.11 Correction of violation required: The imposition of the penalties herein described shall not prevent the legal officer of the jurisdiction from instituting appropriate action to restrain, correct or abate a violation; or to stop an illegal act, conduct of business or use of a building or structure in or about any premises.

ADDENDUM 1

AMENDMENTS TO THE BOCA NATIONAL FIRE PREVENTION CODE 1987 EDITION

As provided in Section F-101.3 of the Virginia Statewide Fire Prevention Code, the amendments noted in this Addendum shall be made to the BOCA National Fire Prevention Code 1987 edition for use as part of the Virginia Statewide Fire Prevention Code.

ARTICLE 1

ADMINISTRATION AND ENFORCEMENT

1. Article 1, Administration and Enforcement, is deleted in its entirety and replaced with Article 1 of the Virginia Statewide Fire Prevention Code.

ARTICLE 2

DEFINITIONS

1. Change Section F-200.3 to read:

F-200.3 Terms defined in the other codes: Where terms are not defined in this code and are defined in the Uniform Statewide Building Code, they shall have the meanings ascribed to them as in that code.

2. Change the following definitions in Section F-201 General Definitions to read:

Building code official: The officer or other designated authority charged with the administration and enforcement of the Uniform Statewide Building Code, Volume I - New Construction Code.

Code official: The officer or other designated authority charged with the administration and enforcement of the Virginia Statewide Building Code, Volume II, Maintenance Code. (Note: when "code

official" appears in the BOCA National Fire Prevention Code, it shall mean "fire Official.")

Occupancy classification: The various use groups as classified in the Uniform Statewide Building Code.

Structure: An assembly of materials forming a construction for use including stadiums, gospel and circus tents, reviewing stands, platforms, stagings, observation towers, radio towers, water tanks, trestles, piers, wharves, swimming pools, amusement devices, storage bins, and other structures of this general nature. The word structure shall be construed as though followed by the words "or part or parts thereof" unless the context clearly requires a different meaning.

3. Add these new definitions to Section F-201.0 General Definitions:

Building: A combination of any materials, whether portable or fixed, that forms a structure for use or occupancy by persons or property; provided, however, that farm buildings not used for residential purposes and frequented generally by the owner, members of his family, and farm employees shall be exempt from provisions of this code. The word building shall be construed as though followed by the words "or part or parts thereof and fixed equipment" unless the context clearly requires a different meaning. The word building includes the word structure.

Building Code: The building code in effect at the time of construction.

Certificate of use and occupancy: The certificate issued by the code official which permits the use of a building in accordance with the approved plans and specifications and which certifies compliance with the provisions of law for the use and occupancy of the building in its several parts together with any special stipulations or conditions of the building permit. (See Section 119.0 of the USBC.)

Combustible material: A material which cannot be classified as noncombustible in accordance with that definition.

Farm building: A structure located on a farm utilized for the storage, handling or production of agricultural, horticultural and floricultural

products normally intended for sale to domestic or foreign markets and buildings used for maintenance, storage or use of animals or equipment related thereto.

Fire official: The officer or other designated authority charged with the administration and enforcement of the Virginia Statewide Fire Prevention Code.

Local government: Any city, county or town in this Commonwealth, or the governing body thereof.

Night club: Means a place of assembly that provides exhibition, performance or other forms of entertainment; serves food and/or alcoholic beverages; and may or may not provide music and space for dancing.

ARTICLE 3

GENERAL PRECAUTIONS AGAINST FIRE

1. Change Section F-301.1 to read:

F-301.1 General: Open burning shall be allowed in accordance with the laws and regulations set forth by the State Air Pollution Control Board, the Department of Forestry, and as regulated by the locality.

ARTICLE 4

HAZARD ABATEMENT IN EXISTING BUILDINGS

1. Change Section F-400.1 to read:

F-400.1 Continued maintenance: All service equipment, means of egress devices and safeguards which were required by a previous statute or another code in a building or structure when erected, altered or repaired shall be maintained in good working order.

2. Delete the balance of ARTICLE 4 HAZARD ABATEMENT IN EXISTING BUILDINGS as it is covered by Volume I and Volume II of the

Uniform Statewide Building Code.

ARTICLE 5

FIRE PROTECTION SYSTEMS

1. Add Section F-509.4 Smoke Detectors for the Deaf and Hearing-impaired to read:

F-509.4 Audible and Visual Alarms: Audible and visual alarms, meeting the requirements of UL Standard 1638, and installed in accordance with NFPA/ANSI 72G, shall be provided in occupancies housing the hard of hearing, as required by Section 36-99.5, Code of Virginia; however, all visual alarms shall provide a minimum intensity of 100 candela. Portable alarms meeting these requirements shall be acceptable.

ARTICLE 16

OIL AND GAS PRODUCTION

1. Delete ARTICLE 16 OIL AND GAS PRODUCTION as it is covered by the VIRGINIA OIL AND GAS ACT, Title 45, Chapter 22 of the Code of Virginia.

ARTICLE 26

EXPLOSIVES, AMMUNITION AND BLASTING AGENTS

1. Article 26 Explosives, Ammunition and Blasting Agents, is deleted in its entirety and replaced with Article 26 of the Virginia Statewide Fire Prevention Code, as follows:

SECTION F-2600.0 GENERAL

F-2600.1 Scope: The equipment, processes and operations involving the manufacture, possession, storage, sale, transportation and use of explosives and blasting agents shall comply with the applicable

requirements of this code and the provisions of this article and shall be maintained in accordance with NFIPA 495, NFIPA 498, and DOT 49CFR listed in Appendix A except as herein specifically exempted or where provisions of this article do not specifically cover conditions and operations; and with the Institute of Makers of Explosives (IME) Safety Library Publications; and Regulations Governing the Transportation of Hazardous Materials as promulgated by the Virginia Waste Management Board and with the Virginia Motor Carrier regulations.

F-2600.2 Exceptions: Nothing in this article shall be construed as applying to the following explosive uses:

1. The Armed Forces of the United States or of a state.
2. Explosives in forms prescribed by the official United States Pharmacopoeia.
3. The sale or use of fireworks which are regulated by Article 27
4. Laboratories engaged in testing explosive materials.
5. The possession, storage and use of not more than 5 pounds (2.27 kg) of smokeless powder, black powder, and 1000 small arms primers for hand loading of small arms ammunition for personal use.
6. The manufacture, possession, storage and use of not more than 5 pounds (2.27 kg) of explosives or blasting agents in educational, governmental or industrial laboratories for instructional or research purposes when under the direct supervision of experienced, competent persons.
7. The transportation and use of explosives or blasting agents by the United States Department of Alcohol, Tobacco and Firearms, the United States Bureau of Mines, the Federal Bureau of Investigation, the United States Secret Service, the Virginia Department of State Police, or qualified fire and law enforcement officials acting in their official capacity in the discharge of their duties; nor to the storage, handling, or use of explosives or blasting agents pursuant to the provisions of Title 45.1 of the Code of Virginia (Department of Mines, Minerals and Energy).

F-2600.2.1 Permit required: A permit shall be obtained from the code official for any of the following conditions or operations:

1. To possess, store, or otherwise dispose of explosives or blasting agents.
2. To use explosives or blasting agents:
 - a. A permit shall be issued for each project.
 - b. The permit shall specify the type of blasting and any special

conditions. To the extent that blasting will occur within any waters of the Commonwealth or in any of the waters under its jurisdiction, evidence of a valid Marine Resources Commission permit, or "no permit necessary" authorization, will be required.

- c. The permit shall specify an expiration date.
- 3. To operate a terminal for handling explosives or blasting agents.
- 4. To manufacture explosives or blasting agents (providing the following conditions are met):
 - a. Registration with the Department of Housing and Community Development;
 - b. Valid license from the Bureau of Alcohol, Tobacco and Firearms; and
 - c. Valid license to do business in the Commonwealth of Virginia.
- 5. To sell explosives and blasting agents (providing the following conditions are met):
 - a. Registration with the Department of Housing and Community Development;
 - b. Valid license from the Bureau of Alcohol, Tobacco and Firearms; and
 - c. Valid license to do business in the Commonwealth of Virginia.

F-2600.2.2 Prohibited permits: Permits as required above shall not be issued for:

- 1. Liquid nitroglycerin and nitrate esters.
- 2. Dynamite (except gelatin dynamite) containing over 60 percent of liquid explosive ingredient.
- 3. Leaking, damaged, or defective packages or containers of high explosives.
- 4. Nitrocellulose in a dry and uncompressed condition to be shipped or transported.
- 5. Fulminate of mercury in a dry condition and fulminate of all other metals in any condition.

Exception: Fulminate of metals which is a component of manufactured articles not otherwise forbidden.

- 6. Explosive compositions that ignite spontaneously or undergo marked decomposition, rendering the products or their use more hazardous, when subjected for 48 consecutive hours or less to a temperature of 167 degrees F. (75 degrees C.).
- 7. New explosives until approved by DOT 49CFR listed in Appendix A, except for permits issued to educational, governmental or

- industrial laboratories for instructional or research purposes.
8. Explosives forbidden by DOT 49CFR listed in Appendix A.
 9. Explosives not packed or marked in accordance with the requirements of DOT 49CFR listed in Appendix A.
 10. Explosives containing an ammonium salt and a chlorate.

F-2600.2.3 Certification of blasters: It shall be a violation of this code for any person to load or fire explosive materials unless the person, or his on-site supervisor, is a certified blaster.

Exception: Individuals conducting agricultural blasting operations on their own property.

This certificate, (and any other pertinent information) shall be carried on the blaster's person during the use of explosive materials. To become certified, the applicant shall successfully complete the blaster certification program of the Department of Housing and Community Development. An applicant for a blaster's certification shall meet the following criteria:

- a. Be at least 21 years of age;
- b. Be able to understand and give written and oral instructions in the English language;
- c. Have worked at least one year under the direct supervision of a blaster certified by the Commonwealth of Virginia or under the supervision of a blaster certified by another authority recognized by the Department of Housing and Community Development as being equivalent; and
- d. Have a working knowledge of Federal, State, and local laws and regulations pertaining to explosive materials.

F-2600.2.3.1 Temporary certification: A temporary certificate may be issued to any person who meets the applicant criteria listed in Section F-2600.2.3, and was employed as a blaster prior to filing the application for the temporary certificate. Any temporary certificate issued before January 1, 1992 shall expire on January 1, 1993. Any temporary certificate issued after January 1, 1992 shall expire 12 months from the date of issuance.

F-2600.2.3.2 Recertification: A blasters certificate shall be renewed every three years.

F-2600.2.4 Revocation or suspension of certification: The Department

of Housing and Community Development may revoke or suspend certification issued under the provisions of this code if conditions of the certification have been violated, or if there has been any false statement or misrepresentation as to material fact in the application on which the certification was based. A blaster whose certification has been suspended or revoked may request, in writing, a hearing before a 3 member panel (who are knowledgeable and/or competent in explosives, ammunition and blasting agents, and who are appointed by the Director of the Department of Housing and Community Development) for reinstatement of certification.

F-2600.2.4 Appeal: A blaster whose certification has been suspended or revoked may request, in writing, a hearing before a 3 member panel (who are knowledgeable and/or competent in explosives, ammunition and blasting agents, and who are appointed by the Director of the Department of Housing and Community Development for reinstatement of certification within 90 days of notification of the suspension or revocation.

F-2600.3 Liability insurance: The company or individual applying for a permit to blast, manufacture, or sell explosives shall provide proof of insurance in an amount determined by the fire official but in no case less than \$500,000.00.

Exception: Liability insurance shall not be required with an Agricultural Blasting permit when the blast is conducted on the applicant's personal property.

F-2600.4 Definitions: For the purposes of this article and as used in this code, the following words and terms shall have the meaning shown:

Agricultural blasting: Means any blasting operation which is conducted on no less than five acres of real estate devoted to agricultural or horticultural use as defined in §58.1-3230, Code of Virginia.

Blaster (shot firer): That qualified person in charge of, and responsible for, the loading and firing of an explosive or blasting agent.

Blasting agent: Any explosive material that has been tested and approved in accordance with the provisions of DOT 49CFR which includes that the finished product, as mixed for use and shipment,

cannot be detonated by a No. 8 test blasting cap when unconfined.

Carrier: Any person who engages in the transportation of articles or materials by rail, highway, water or air.

Explosive: Any chemical compound, mixture or device, the primary or common purpose of which is to function by explosion. The term "explosive" includes all materials classified as Class A, Class B, or Class C explosives by DOT regulations and includes, but is not limited to, dynamite, black powder, pellet powders, smokeless powder, initiating explosives, blasting caps, electric blasting caps, safety fuse, fuse igniters, fuse lighters, squibs, cordeau detonate fuse, instantaneous fuse, igniter cord and igniters.

Explosive-actuated device: Any tool or special mechanized device which is actuated by explosives, but not to include propellant-actuated power devices. Examples of explosive-actuated power devices are jet tappers and jet perforators. (See Special industrial explosive device.)

Highway: Any public street, alley or road.

Magazine: Any building or structure approved for the storage of explosives. Magazines shall be of two classes as follows:

Class I. magazines shall be used for the storage of explosives when quantities are in excess of 50 pounds (22.70 kg) of explosive material.

Class II. magazines shall be used for the storage of explosives in quantities of 50 pounds (22.70 kg) or less of explosive materials except that a Class II magazine is permitted to be used for temporary storage of a larger quantity of explosives at the site of blasting operations where such amount constitutes not more than one day's supply for use in the current operation.

Peak particle velocity: The maximum component of the three mutually perpendicular components of motion at a given point.

Propellant-actuated power device: Any tool or special mechanized device or gas generator system which is actuated by a propellant or which releases and directs work through a propellant charge. (See Special industrial explosive device.)

Public conveyance: Any railway car, streetcar, cab, bus, airplane or

other vehicle transporting passengers for hire.

Railway: Any steam, electric or other railroad or railway which carries passengers for hire.

Semitrailer: Every vehicle of the trailer type so designed and used in conjunction with a motor vehicle that some part of its own weight (and that of its own load) rests upon or is carried by another vehicle.

Small arms ammunition: Any shotgun, rifle, pistol or revolver cartridge.

Special industrial explosive device: Any explosive power pack containing an explosive charge in the form of a cartridge or construction device. The term includes, but is not limited to, explosive rivets, explosive bolts, explosive charges for driving pins or studs, cartridges for explosive actuated power tools and charges of explosives used in jet tapping of open hearth furnaces and jet perforation of oil well casings.

Special industrial high explosive materials: Sheets, extrusions, pellets and packages of high explosives containing dynamite, trinitrotoluol, pentaerythritoltetranitrate, cyclotrimethylenetrinitramine, or other similar compounds used for high energy rate forming, expanding and shaping in metal fabrication, and for dismemberment and quick reduction of scrap metal.

Terminal: Those facilities used by carriers for the receipt, transfer, temporary storage or delivery of articles or materials.

Test blasting cap No. 8: One containing two grams of a mixture of 80 percent mercury fulminate and 20 percent potassium chlorate, or a cap of equivalent strength.

Tractor truck: Every motor vehicle designed and used primarily for drawing other vehicles and not so constructed as to carry a load other than a part of the load and weight of the vehicle attached thereto.

Transport or transportation: Any movement of property by any mode, and any packing, loading, unloading, identification, marking, placarding, or storage incidental thereto.

Vehicle: A conveyance of any type operated upon the highways.

SECTION F-2601.0 GENERAL REQUIREMENTS

F-2601.1 Manufacturing: The manufacture of explosives or blasting agents shall be prohibited unless such manufacture is approved. This shall not apply to hand loading of small arms ammunition for personal use when not for resale.

F-2601.2 Storage: The storage of explosives and blasting agents is prohibited within the legal geographic boundaries of any district where such storage is prohibited by the authority having jurisdiction.

Exception: Temporary storage for use in connection with approved blasting operations, provided, however, this prohibition shall not apply to wholesale and retail stocks of small arms ammunition, explosive bolts, explosive rivets or cartridges for explosive actuated power tools in quantities involving less than 500 pounds (227 kg) of explosive material.

F-2601.3 Quantity control: The code official shall limit the quantity of explosives or blasting agents to be permitted at any location.

F-2601.4 Sale and display: Explosives shall not be sold, given, delivered, or transferred to any person or company not in possession of a valid license or permit. A holder of a permit to sell explosives shall make a record of all transactions involving explosives. Such record shall be made available to the fire official upon request, and shall be retained for five years. An accumulation of invoices, sales slips, delivery tickets, receipts, or similar papers representing individual transactions will satisfy the requirements for records provided they include the signature of any receiver of the explosives. A person shall not sell or display explosives or blasting agents on highways, sidewalks, public property or in places of public assembly or education.

SECTION F-2602.0 STORAGE OF EXPLOSIVE MATERIALS

F-2602.1 General: Explosives, including special industrial high explosive materials, shall be stored in magazines which meet the requirements of this article. This shall not be construed as applying to wholesale and retail stocks of small arms ammunition, explosive bolts, explosive rivets or cartridges for explosive-actuated power tools in quantities

F-2602 Table of Distances For Storage of Explosives

QUANTITY OF EXPLOSIVE MATERIALS ⁽¹⁾	DISTANCES IN FEET												
	Isolated Buildings in				Public Highways (A, B, C, D, E)				Fireworks Highway—Public Highways with Traffic Volume of more than 2,000 Vehicles/Day (A, B, C)				Separation of Structures in
Feet	Feet	Barri- caded ⁽²⁾	Barri- caded	Barri- caded	Barri- caded	Barri- caded	Barri- caded	Barri- caded	Barri- caded	Barri- caded	Barri- caded	Barri- caded	Barri- caded
2	5	70	140	30	60	51	102	0	0	12	12		
5	10	90	180	35	70	64	128	0	0	16	16		
10	20	110	220	45	90	81	162	0	0	10	10		
20	30	125	250	50	100	93	186	0	0	11	11		
30	40	140	280	55	110	103	206	0	0	12	12		
40	50	150	300	60	120	116	230	0	0	14	14		
50	75	170	340	70	140	127	254	0	0	15	15		
75	100	190	380	75	150	139	278	0	0	16	16		
100	125	200	400	80	160	150	300	0	0	18	18		
125	150	215	430	85	170	159	318	0	0	19	19		
150	200	235	470	95	190	175	350	0	0	21	21		
200	250	255	510	105	210	189	376	0	0	23	23		
250	300	270	540	110	220	201	402	0	0	24	24		
300	400	285	580	120	240	221	442	0	0	27	27		
350	400	295	590	130	260	230	460	0	0	29	29		
400	500	320	640	135	270	253	506	0	0	31	31		
500	600	340	680	145	290	268	532	0	0	32	32		
600	700	355	710	150	300	270	540	0	0	33	33		
700	800	375	750	155	310	289	578	0	0	35	35		
800	900	390	780	160	320	300	600	0	0	36	36		
900	1,000	400	800	165	330	310	620	0	0	38	38		
1,000	1,200	425	850	165	340	318	636	0	0	39	39		
1,200	1,400	450	900	170	350	326	652	0	0	41	41		
1,400	1,600	470	940	175	350	351	702	0	0	43	43		
1,600	1,800	490	980	180	360	366	732	0	0	44	44		
1,800	2,000	505	1,010	185	370	378	756	0	0	45	45		
2,000	2,500	545	1,090	190	380	400	816	0	0	49	49		
2,500	3,000	585	1,160	195	390	432	864	0	0	52	52		
3,000	4,000	635	1,270	210	420	474	948	0	0	58	58		
4,000	5,000	685	1,370	225	450	513	1,026	0	0	61	61		
5,000	6,000	730	1,450	235	470	546	1,092	0	0	65	65		

QUANTITY OF EXPLOSIVE MATERIALS	DISTANCES IN FEET										
	770	1,540	2,315	3,090	3,865	4,640	5,415	6,190	6,965	7,740	8,515
6,000	7,000	8,000	9,000	10,000	11,000	12,000	13,000	14,000	15,000	16,000	17,000
7,000	8,000	9,000	10,000	11,000	12,000	13,000	14,000	15,000	16,000	17,000	18,000
8,000	9,000	10,000	11,000	12,000	13,000	14,000	15,000	16,000	17,000	18,000	19,000
9,000	10,000	11,000	12,000	13,000	14,000	15,000	16,000	17,000	18,000	19,000	20,000
10,000	11,000	12,000	13,000	14,000	15,000	16,000	17,000	18,000	19,000	20,000	21,000
12,000	14,000	16,000	18,000	20,000	23,000	26,000	29,000	32,000	35,000	38,000	41,000
14,000	16,000	18,000	20,000	23,000	26,000	29,000	32,000	35,000	38,000	41,000	44,000
16,000	18,000	20,000	23,000	26,000	29,000	32,000	35,000	38,000	41,000	44,000	47,000
18,000	20,000	23,000	26,000	29,000	32,000	35,000	38,000	41,000	44,000	47,000	50,000
20,000	23,000	26,000	29,000	32,000	35,000	38,000	41,000	44,000	47,000	50,000	53,000
25,000	28,000	31,000	34,000	37,000	40,000	43,000	46,000	49,000	52,000	55,000	58,000
30,000	33,000	36,000	39,000	42,000	45,000	48,000	51,000	54,000	57,000	60,000	63,000
35,000	38,000	41,000	44,000	47,000	50,000	53,000	56,000	59,000	62,000	65,000	68,000
40,000	43,000	46,000	49,000	52,000	55,000	58,000	61,000	64,000	67,000	70,000	73,000
45,000	48,000	51,000	54,000	57,000	60,000	63,000	66,000	69,000	72,000	75,000	78,000
50,000	53,000	56,000	59,000	62,000	65,000	68,000	71,000	74,000	77,000	80,000	83,000
55,000	58,000	61,000	64,000	67,000	70,000	73,000	76,000	79,000	82,000	85,000	88,000
60,000	63,000	66,000	69,000	72,000	75,000	78,000	81,000	84,000	87,000	90,000	93,000
65,000	68,000	71,000	74,000	77,000	80,000	83,000	86,000	89,000	92,000	95,000	98,000
70,000	73,000	76,000	79,000	82,000	85,000	88,000	91,000	94,000	97,000	100,000	103,000
75,000	78,000	81,000	84,000	87,000	90,000	93,000	96,000	99,000	102,000	105,000	108,000
80,000	83,000	86,000	89,000	92,000	95,000	98,000	101,000	104,000	107,000	110,000	113,000
85,000	88,000	91,000	94,000	97,000	100,000	103,000	106,000	109,000	112,000	115,000	118,000
90,000	93,000	96,000	99,000	102,000	105,000	108,000	111,000	114,000	117,000	120,000	123,000
95,000	98,000	101,000	104,000	107,000	110,000	113,000	116,000	119,000	122,000	125,000	128,000
100,000	103,000	106,000	109,000	112,000	115,000	118,000	121,000	124,000	127,000	130,000	133,000
110,000	113,000	116,000	119,000	122,000	125,000	128,000	131,000	134,000	137,000	140,000	143,000
120,000	123,000	126,000	129,000	132,000	135,000	138,000	141,000	144,000	147,000	150,000	153,000
130,000	133,000	136,000	139,000	142,000	145,000	148,000	151,000	154,000	157,000	160,000	163,000
140,000	143,000	146,000	149,000	152,000	155,000	158,000	161,000	164,000	167,000	170,000	173,000
150,000	153,000	156,000	159,000	162,000	165,000	168,000	171,000	174,000	177,000	180,000	183,000
160,000	163,000	166,000	169,000	172,000	175,000	178,000	181,000	184,000	187,000	190,000	193,000
170,000	173,000	176,000	179,000	182,000	185,000	188,000	191,000	194,000	197,000	200,000	203,000
180,000	183,000	186,000	189,000	192,000	195,000	198,000	201,000	204,000	207,000	210,000	213,000
190,000	193,000	196,000	199,000	202,000	205,000	208,000	211,000	214,000	217,000	220,000	223,000
200,000	203,000	206,000	209,000	212,000	215,000	218,000	221,000	224,000	227,000	230,000	233,000
210,000	213,000	216,000	219,000	222,000	225,000	228,000	231,000	234,000	237,000	240,000	243,000
220,000	223,000	226,000	229,000	232,000	235,000	238,000	241,000	244,000	247,000	250,000	253,000
230,000	233,000	236,000	239,000	242,000	245,000	248,000	251,000	254,000	257,000	260,000	263,000
250,000	253,000	256,000	259,000	262,000	265,000	268,000	271,000	274,000	277,000	280,000	283,000
275,000	278,000	281,000	284,000	287,000	290,000	293,000	296,000	299,000	302,000	305,000	308,000

Numbers in [] refer to explanatory notes

F-2602 Table of Distances For Storage of Explosives

NOTE 1—“Explosive materials” means explosives, blasting agents and detonators

NOTE 2—“Explosives” means any chemical compound, mixture, or device, the primary or common purpose of which is to function by explosion. A list of explosives determined to be within the coverage of “18 U.S.C. Chapter 40, Importation, Manufacturer, Distribution and Storage of Explosive Materials” is issued at least annually by the Director of the Bureau of Alcohol, Tobacco and Firearms of the Department of the Treasury. For quantity and distance purposes, detonating cord of 50 grains per foot should be calculated as equivalent to 8 lbs. of high explosives per 1,000 feet. Heavier or lighter core loads should be rated proportionately.

NOTE 3—“Blasting agents” means any material or mixture, consisting of fuel and oxidizer, intended for blasting, not otherwise defined as an explosive. Provided, That the finished product, as mixed for use or shipment, cannot be detonated by means of a No. 8 test blasting cap when unconfined.

NOTE 4—“Detonator” means any device containing any initiating or primary explosive that is used for initiating detonation. A detonator may not contain more than 10 grams of total explosives by weight, excluding ignition or delay charges. The term includes, but is not limited to, electric blasting caps of instantaneous and delay types, blasting caps for use with safety fuses, detonating cord delay connectors, and non-electric instantaneous and delay blasting caps which use detonating cord, shock tube, or any other replacement for electric lag wires. All types of detonators in strengths through No. 8 cap should be rated at 1 1/4 lbs. of explosives per 1,000 caps. For strengths higher than No. 8 cap, consult the manufacturer.

NOTE 5—“Magazine” means any building, structure, or container, other than an explosives manufacturing building, approved for the storage of explosive materials

NOTE 6—“Natural Barricade” means natural features of the ground, such as hills, or timber of sufficient density that the surrounding explosives which require protection cannot be seen from the magazine when the trees are bare of leaves

NOTE 7—“Artificial Barricade” means an artificial mound or revetted wall of earth of a minimum thickness of three feet

NOTE 8—“Barricaded” means the effective screening of a building containing explosive materials from the magazine or other building, railway, or highway by a natural or an artificial barrier. A straight line from the top of any sidewall of the building containing explosive materials to the same line of any magazine or other building or to a point twelve feet above the center of a railway or highway shall pass through such barrier

NOTE 9—“Inhabited Building” means a building regularly occupied in whole or part as a habitation for human beings, or any church, schoolhouse, railroad station, store, or other structure where people are accustomed to assemble, except any building or structure occupied in connection with the manufacture, transportation, storage or use of explosive materials

NOTE 10—“Railway” means any steam, electric, or other railroad or railway which carries passengers for hire

NOTE 11—“Highway” means any public street, public alley or public road. “Public Highway Class A to D” are highways with average traffic volume of 3,000 or less vehicles per day as specified in “American Civil Engineering Practice” (Abbott, Vol 1, Table 46, Sec 3-74, 1956 Edition, John Wiley and Sons)

NOTE 12—When two or more storage magazines are located on the same property, each magazine must comply with the minimum distances specified from inhabited buildings, railways, and highways, and, in addition, they should be separated from each other by not less than the distances shown for “Separation of Magazines,” except that the quantity of explosive materials contained in detonator magazines shall govern in regard to the spacing of said detonator magazines from magazines containing other explosive materials. If any two or more magazines are separated from each other by less than the specified “Separation of Magazines” distances, then such two or more magazines, as a group, must be considered as one magazine, and the total quantity of explosive materials stored in such group must be treated as if stored in a single magazine located on the site of any magazine of the group, and must comply with the minimum of distances specified from other magazines, inhabited buildings, railways, and highways

NOTE 13—Storage in excess of 300,000 lbs. of explosive materials, in one magazine is generally not required for commercial enterprises

NOTE 14—This table applies only to the manufacture and permanent storage of commercial explosive materials. It is not applicable to transportation of explosives or any handling or temporary storage necessary or incident thereto. It is not intended to apply to bombs, projectiles or other heavily encased explosives

involving less than 500 pounds (227 kg) of explosive material. Magazines shall be in the custody of a competent person at all times who shall be at least 21 years of age, and who shall be held responsible for compliance with all safety precautions.

F-2602.2 Control in wholesale and retail stores: Explosive materials shall not be stored within wholesale or retail stores. The storage of explosives for wholesale and retail sales shall be in approved outdoor magazines except that not more than 50 pounds of black or smokeless powder may be stored in a Type 4 indoor magazine.

F-2602.3 Magazine clearances: Magazines shall be located away from inhabited buildings, passenger railways, public highways and other magazines in conformance with Table F-2602, except as provided in Section F-2602.2.

F-2602.4 Magazine construction: Magazines shall be constructed and maintained in accordance with IME publication #1. (Note: Refer to Section F-2600.4 for the use of magazines.)

F-2602.4.1 Weather resistance: Magazines for the storage of explosives shall be weather resistant and properly ventilated. When used for storage of Class A explosives other than black powder, blasting caps and electric blasting caps, these magazines shall also be bullet resistant.

F-2602.4.2 Magazine heat and light: Magazines shall not be provided with artificial heat or light, except that if artificial light is necessary, an approved electric safety flashlight or safety lantern shall be used.

F-2602.5 Safety precautions: Smoking, matches, open flames, spark producing devices and firearms shall be prohibited inside or within 50 feet (15.24m) of magazines. Combustible materials shall not be stored within 50 feet (15.24m) of magazines.

F-2602.5.1 Surrounding terrain: The land surrounding magazines shall be kept clear of brush, dried grass, leaves, trash and debris for a distance of at least 25 feet (7.62 m).

F-2602.5.2 Locking security: Magazines shall be kept locked except when being inspected or when explosives are being placed therein or being removed therefrom.

F-2602.5.3 Magazine housekeeping: Magazines shall be kept clean, dry and free of grit, paper, empty packages or rubbish.

F-2602.5.4 Separation of detonators and explosives: Blasting caps, electric blasting caps, detonating primers and primed cartridges shall not be stored in the same magazine with other explosives.

F-2602.5.5 Explosive unpacking: Packages of explosives shall not be unpacked or repacked in a magazine nor within 50 feet (15.24m) of a magazine.

F-2602.5.6 Magazine contents: Magazines shall not be used for the storage of any metal tools or of any commodity except explosives, but this restriction shall not apply to the storage of blasting agents, blasting supplies and oxidizers used in compound blasting agents.

F-2602.6 Unstable explosives: When an explosive has deteriorated to an extent that it is in an unstable or dangerous condition, or if liquid leaks from any explosive, then the person in possession of such explosive shall immediately report that fact to the code official and upon his approval shall proceed to destroy such explosives and clean floors stained with nitroglycerin or other such liquids in accordance with the instructions of the manufacturer. Only qualified, experienced persons shall do the work of destroying explosives.

F-2602.7 Class I magazine warnings: Property upon which Class I magazines are located shall be posted with signs reading "Explosives - Keep Off." Such signs shall be located so as to minimize the possibility of a bullet traveling in the direction of the magazine if anyone shoots at the sign.

F-2602.8 Class II magazine warnings: Class II magazines shall be painted red and shall bear lettering in white, on all sides and top at least 3 inches (76 mm) high, "Explosives - Keep Fire Away."

SECTION F-2603.0 TRANSPORTATION OF EXPLOSIVES

F-2603.1 General: The transportation of explosive materials shall comply with applicable provisions of the Regulations Governing the Transportation of Hazardous Materials as promulgated by the Virginia Waste Management Board.

F-2603.2 Enforcement: The Department of State Police, together with all law enforcement and peace officers of the Commonwealth who have satisfactorily completed the course in Hazardous Materials Compliance and Enforcement as prescribed by the U.S. Department of Transportation, Research and Special Programs, and Office of Hazardous Materials Transportations, in federal safety regulations and safety inspections procedures pertaining to the transportation of hazardous materials, shall enforce the provisions of this section. Those officers shall annually receive in-service training in current federal safety standards and safety inspection procedures pertaining to the transportation of hazardous materials.

SECTION F-2604.0 STORAGE OF BLASTING AGENTS AND SUPPLIES

F-2604.1 General: Blasting agents or oxidizers, when stored in conjunction with explosives, shall be stored in the manner set forth in Section F-2602.0 for explosives. The quantity of blasting agents or oxidizers shall be included when computing the total quantity of explosives for determining distance requirements.

F-2604.2 Storage location: Buildings used for storage of blasting agents separate from explosives shall be located away from inhabited buildings, passenger railways and public highways in accordance with Table F-2602.

F-2604.3 Storage housekeeping: The interior of buildings used for the storage of blasting agents shall be kept clean and free from debris and empty containers. Spilled materials shall be cleaned up promptly and safely removed. Combustible materials, flammable liquids, corrosive acids, chlorates, nitrates other than ammonium nitrate or similar materials shall not be stored in any building containing blasting agents unless separated therefrom by construction having a fire-resistance rating of not less than 1 hour. The provisions of this section shall not prohibit the storage of blasting agents together with non-explosive blasting supplies.

F-2604.4 Trailer storage requirements: Semitrailers or full trailers used for temporarily storing blasting agents shall be located away from inhabited buildings; passenger railways and public highways, in accordance with Table F-2602. Trailers shall be provided with sub-

stantial means for locking and trailer doors shall be kept locked except during the time of placement or removal of blasting agents.

F-2604.5 Oxidizers and fuels: Piles of oxidizers and buildings containing oxidizers shall be adequately separated from readily combustible fuels.

F-2604.6 Oxidizer handling: Caked oxidizer, either in bags or in bulk, shall not be loosened by blasting.

SECTION F-2605.0 HANDLING OF EXPLOSIVES

F-2605.1 Mixing blasting agents: Buildings or other facilities used for mixing blasting agents shall be located away from inhabited buildings, passenger railways and public highways, in accordance with Table F-2602.

F-2605.2 Quantity of mixing agents: Not more than one day's production of blasting agents or the limit determined by Table F-2602, whichever is less, shall be permitted in or near the building or other facility used for mixed blasting agents. Larger quantities shall be stored in separate buildings or magazines.

F-2605.3 Compounding standards: Compounding and mixing of recognized formulations of blasting agents shall be conducted in accordance with NFPA 495 and DOT 49CFR listed in Appendix A.

F-2605.4 Ignition protection: Smoking or open flames shall not be permitted within 50 feet (15.24m) of any building or facility used for the mixing of blasting agents.

F-2605.4.1 Unpacking tools: Tools used for opening packages of explosives shall be constructed of nonsparking materials.

F-2605.5 Waste disposal: Empty oxidizer bags shall be disposed of daily by burning in a safe manner (in an open area and at a safe distance from buildings or combustible materials).

F-2605.5.1 Packing material disposal: Empty boxes and paper and fiber packing materials which have previously contained high explosives shall not be used again for any purpose, but shall be destroyed by burning at an approved isolated location out of doors, and any person

shall not be closer than 100 feet (30.48 m) during the course of said burning.

F-2605.6 Control: Explosives shall not be abandoned.

SECTION F-2606.0 BLASTING

F-2606.1 Time: Blasting operations shall be conducted during daylight hours except when otherwise approved.

F-2606.2 Personnel: The handling and firing of explosives shall be performed by the person certified as a blaster under Section F-2600.-2.3 of this code or by employees under that person's direct on-site supervision who are at least 21 years old.

1. A person shall not handle explosives while under the influence of intoxicants or narcotics.
2. A person shall not smoke or carry matches while handling explosives or while in the vicinity thereof.
3. An open flame light shall not be used in the vicinity of explosives.

F-2606.3 Clearance at site: At the site of blasting operations, a distance of at least 150 feet (45.72 m) shall be maintained between Class II magazines and the blast area when the quantity of explosives temporarily kept therein is in excess of 25 pounds (11.35 kg), and at least 50 feet (15.24m) when the quantity of explosives is 25 pounds (11.35 kg) or less.

F-2606.4 Notice: Whenever blasting is being conducted in the vicinity of gas, electric, water, fire, alarm, telephone, telegraph or steam utilities, the blaster shall notify the appropriate representatives of such utilities at least 24 hours in advance of blasting, specifying the location and intended time of such blasting. Verbal notice shall be confirmed with written notice. This time limit shall not be waived except in an emergency as determined by the code official.

F-2606.5 Responsibility: Before a blast is fired, the person in charge shall make certain that all surplus explosives are in a safe place, all persons and vehicles are at a safe distance or under sufficient cover, and a warning signal has been sounded.

F-2606.6 Precautions: Due precautions shall be taken to prevent

accidental discharge of electric blasting caps from current induced by radio or radar transmitters, lightning, adjacent power lines, dust storms or other sources of extraneous electricity. These precautions shall include:

1. The suspension of all blasting operations and removal of persons from the blasting area during the approach and progress of an electrical storm;
2. The posting of signs warning against the use of mobile radio transmitters on all roads within 350 feet (106.75m) of the blasting operations; and
3. Compliance with NFIP 495 listed in Appendix A when blasting within 1-1/2 miles (2.41 km) of broadcast or highpower short wave radio transmitters.
4. Misfires shall be handled as directed by equipment manufacturers with no one entering the blasting site, except the blaster, until the loaded charges have been made to function or have been removed.

F-2606.7 Congested areas: As required by the fire official, when blasting is done in congested areas or in close proximity to a building, structure, railway, highway or any other installation susceptible to damage, the blast shall be covered before firing, with a mat and/or earth so that it is capable of preventing rock from being thrown into the air out of the blast area.

F-2606.8 Blast records: A record of each blast shall be kept and retained for at least three years and shall be available for inspection by the fire official. These records shall contain the following minimum data:

1. Name of contractor.
2. Location and time of blast.
3. Name of certified blaster in charge.
4. Type of material blasted.
5. Number of holes bored and spacing.
6. Diameter and depth of holes.
7. Type and amount of explosives.
8. Amount of explosives per delay of 8 milliseconds or greater.
9. Method of firing and type of circuit.
10. Direction and distance in feet to nearest dwelling, public building, school, church, commercial or institutional building.
11. Weather conditions.
12. Whether or not mats or other precautions were used.

13. Type of detonators and delay periods.
14. Type and height of stemming.
15. Seismograph records where indicated.

SECTION F-2607.0 STANDARDS FOR CONTROL OF AIRBLAST AND GROUND VIBRATION

F-2607.1 Airblast: This section shall apply to airblast effects as recorded at the location of any private dwelling, public building, school, church, and community or institutional building not owned or leased by the person conducting or contracting for the blasting operation. If requested by a property owner registering a complaint and deemed necessary by the fire official, measurements of three consecutive blasts, using approved instrumentation, shall be made near the structure in question.

F-2607.1.1 Maximum airblast: The maximum airblast at any inhabited building, resulting from blasting operations, shall not exceed 130 decibels peak, or 140 decibels peak at any uninhabited building, when measured by an instrument having a flat frequency response (+3 decibels) over a range of at least 6 to 200 Hertz.

F-2607.2 Ground vibration: This section shall provide for limiting ground vibrations at structures that are neither owned nor leased by the person conducting or contracting for the blasting operation. Engineered structures may safely withstand higher vibration levels based on an approved engineering study upon which the fire official may then allow higher levels for such engineered structures. When blasting operations are to be conducted within 200 feet of a pipe line or high voltage transmission line, the contractor shall notify the owner of the line, or his agent, that such blasting operations are intended. (Note: Each Table, F-2607A to F-2607C, has an increasing degree of sophistication and each can be implemented either by the fire official as a result of complaints or by the contractor to determine site specific vibration limits. The criteria in Tables F-2607 A, B, C and Section F-2607.3 are intended to protect low rise structures including dwellings).

F-2607.2.1 Blasting without instrumentation: Where no seismograph is used to record vibration effects, the explosive charge weight per delay (8 milliseconds or greater) shall not exceed the limits shown in Table F-2607A. When charge weights per delay on any single delay

TABLE 2607 A*
Charge Weight per Delay
Dependent on Distance

Distance to a Building			Weight of Explosive per Delay pounds	Distance to a Building			Weight of Explosives per Delay pounds
feet over	to	feet not over		feet over	to	feet not over	
0	to	5	1/4	250	to	260	45
5	to	10	1/2	260	to	280	49
10	to	15	3/4	280	to	300	55
15	to	60	**	300	to	325	61
60	to	70	6	325	to	350	69
70	to	80	7 1/4	350	to	375	79
80	to	90	9	375	to	400	85
90	to	100	10 1/2	400	to	450	98
100	to	110	12	450	to	500	115
110	to	120	13 3/4	500	to	550	135
120	to	130	15 1/2	550	to	600	155
130	to	140	17 1/2	600	to	650	175
140	to	150	19 1/2	650	to	700	195
150	to	160	21 1/2	700	to	750	220
160	to	170	23 1/4	750	to	800	240
170	to	180	25	800	to	850	263
180	to	190	28	850	to	900	288
190	to	200	30 1/2	900	to	950	313
200	to	220	34	950	to	1000	340
220	to	240	39	1000	to	1100	375
240	to	250	42	1100	to	1200	435
				1200	to	1300	493

Note to Table

1.5

D

*Over 60 feet this table is based upon the formula: $W = \frac{90}{D}$

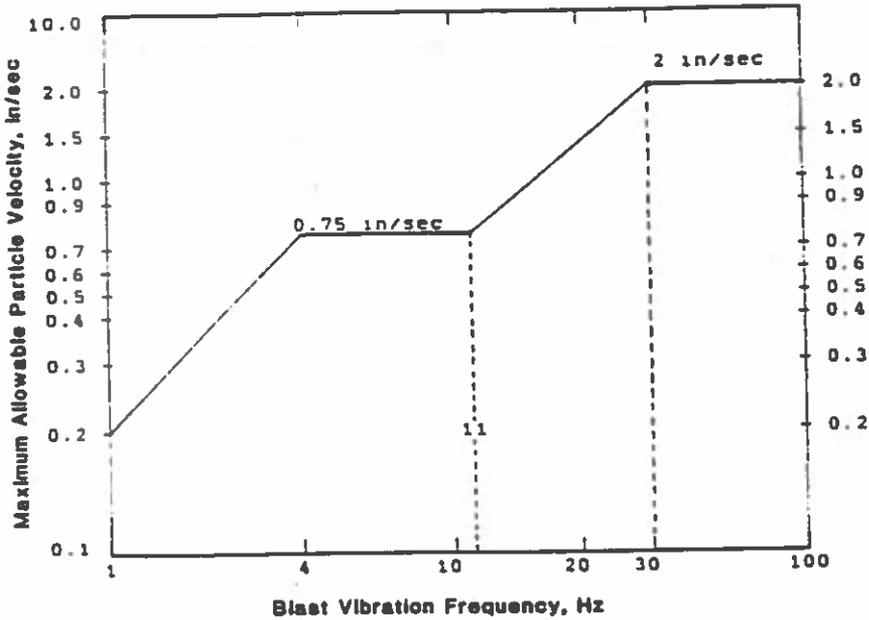
**One tenth of a pound of explosive per foot of distance to a building.

Table 2607 B
 Peak Particle Velocity
 Dependent on Distance

Distance			Peak Particle Velocity of Any One Component*
feet over	to	feet not over	
0	to	100	2.00
100	to	500	1.50
500	to	1000	1.00
over		1000	0.75

*The instrument's transducer shall be firmly coupled to the ground.

Table 2607 C
Particle Velocity Criteria
Dependent on Frequency Content



Note: This criteria is derived from the U.S. Bureau of Mines - RI 07 (Appendix B) and provides a continuously variable particle velocity criteria dependent on the frequency content of the ground motion. The method of analysis shall be approved by the Fire Official and shall provide an analysis showing all the frequencies present over the 1 - 50 Hz range.

period exceed 520 lbs., then ground vibration limits for structures shall comply with Tables F-2607B, F-2607C, or Section F-2607.3.

F-2607.2.2 Monitoring with instrumentation: Where a blaster determines that the charge weights per delay given in Table F-2607A are too conservative, he may choose to monitor (at the closest conventional structure) each blast with an approved seismograph and conform to the limits set by Tables F-2607B, F-2607C, or Section F-2607.3. (Note: From this point on the explosive charge weight per delay may be increased, but the vibration levels detailed in Tables F-2607B, F-2607C, or Section F-2607.3 shall not be exceeded.)

F-2607.3 Response spectra: A relative velocity of 1.5 inches per second or less, within the 4 to 12 Hertz range of natural frequencies for low rise structures, shall be recorded as determined from an approved response spectra.

F-2607.4 Instrumentation: A direct velocity recording seismograph capable of recording the continuous wave form of the three mutually perpendicular components of motion, in terms of particle velocity, shall be used and shall have the following characteristics:

1. Each seismograph shall have a frequency response from 2 to 150 Hertz or greater; a velocity range from 0.0 to 2.0 inches per second or greater; and shall adhere to design criteria for portable seismographs outlined in U.S. Bureau of Mines RI 5708, RI 6487, and RI 8506.
2. All field seismographs shall be capable of internal dynamic calibration and shall be calibrated according to the manufacturers' specifications at least once per year.
3. All seismographs shall be operated by competent people trained in their correct use and seismographs records shall be analyzed and interpreted as may be required by the fire official.

F-2607.5. Seismographic records: A record of each blast shall be kept. All records, including seismograph reports, shall be retained for at least three years and shall be available for inspection. Records shall include the following information:

1. Name of company or contractor.
2. Location, date and time of blast.
3. Name, signature and social security number of blaster in charge.
4. Type of material blasted.

5. Number of holes bored and spacing.
6. Diameter and depth of holes.
7. Type of explosives used.
8. Total amount of explosives used.
9. Maximum amount of explosives per delay period of 8 milliseconds or greater.
10. Method of firing and type of circuit.
11. Direction and distance in feet to nearest dwelling house, public building, school, church, commercial or institutional building neither owned nor leased by the person conducting the blasting.
12. Weather conditions including such factors as wind direction, etc.
13. Height or length of stemming.
14. Type of protection, such as mats, that were used to prevent flyrock.
15. Type of detonators used and delay period used.
16. The exact location of the seismograph, and the distance of the seismograph from the blast.
17. Seismograph readings, where required, shall contain:
 - a. Name and signature of person operating the seismograph.
 - b. Name of person analyzing the seismograph records.
 - c. Seismograph reading.
18. The maximum number of holes per delay period of 8 milliseconds or greater.

SECTION F-2608.0 THEFT OR DISAPPEARANCE OF EXPLOSIVES

F-2608.1 Reports of stolen explosives: Pursuant to Section 27-91.1 Code of Virginia, any person holding a permit for the manufacture, storage, handling, use or sale of explosives issued in accordance with this code shall report to the State Police and the local law enforcement agency any theft or other disappearance of any explosives or blasting devices from their inventory. In addition, notification shall be made to the fire official having issued the permit.

F-2608.2 Reports of injuries or property damage: The fire official shall be immediately notified of injuries to any person or damage to any property as a result of the functioning of the explosive.

F-2608.3 Relationship of local fire official and State Fire Marshal: The local fire official shall relay information obtained from reports required by Sections F-2608.1 and F-2608.2 to the Office of the State Fire Marshal.

ARTICLE 27**FIREWORKS**

1. Change Section 2700.1 to read:

F-2700.1 Scope: The manufacture, transportation, display, sale or discharge of fireworks shall comply with the requirements of Chapter 11, Title 59, of the Code of Virginia.

2. Change Section F-2700.4 to read:

F-2700.4 Definition: Fireworks shall mean and include any item known as firecracker, torpedo, skyrocket, or other substance or thing, of whatever form or construction, that contains any explosive or inflammable compound or substance, and is intended, or commonly known, as fireworks and which explodes, rises into the air or travels laterally, or fires projectiles into the air. The term "fireworks" does not include auto flares, caps for pistols, pinwheels, sparklers, fountains or Pharaoh's Serpents provided, however, these permissible items may only be used, ignited or exploded on private property with the consent of the owner of such property.

3. Delete SECTION F-2701.1 GENERAL.
4. Delete SECTION F-2701.3 EXCEPTIONS.

ARTICLE 30**LIQUEFIED PETROLEUM GASES**

1. Change Section F-3000.1 to read:

F-3000.1 Scope: The equipment, processes and operation for storage, handling, transporting by tank truck or tank trailer, and utilizing LP gases for fuel purposes, and for odorization of LP gases shall comply

with the Virginia Liquefied Petroleum Gas Regulations in effect at the time of construction as provided for in Chapter 7, Title 27 of the Code of Virginia.

2. Delete Section F-3000.3 Record of installation:
3. Delete Section F-3000.4 Definitions:
4. Delete Section F-3001.0 TANK CONTAINER SYSTEMS.
5. Delete Section F-3002.0 CONTAINER STORAGE.
6. Delete Section F-3003.0 USE INSIDE BUILDINGS.
7. Delete Section F-3004.0 FIRE SAFETY REQUIREMENTS.
8. Delete Section F-3005.0 ABANDONMENT OF EQUIPMENT.

ADDENDUM 2

PUBLIC BUILDING SAFETY REGULATIONS

PREFACE

This addendum has been prepared to assist in implementing the changes made by the 1988 Legislature to §27-97 Code of Virginia. These changes became effective July 1, 1988.

Section 27-97 was amended through the addition of a section which states "The Fire Prevention Code shall require that buildings constructed prior to 1973 be maintained in accordance with state fire and public building regulations in effect prior to March 31, 1986." This results in making the former "Public Building Safety Regulations" a part of the Virginia Statewide Fire Prevention Code.

To facilitate the use of these Regulations as a part of the Virginia Statewide Fire Prevention Code, the regulations have been reviewed and those portions of the Regulation that are no longer applicable have been deleted.

In using these Regulations it is important to know that:

1. The Regulation are applicable only to "Public Buildings." (See Section 100-2 (a) Application).
2. The Regulations are not applicable to building constructed after September 1, 1973, the effective date of the Uniform Statewide Building Code. In addition, all alterations, renovations, additions or changes of use since September 1, 1973 are subject to the Uniform Statewide Building Code and not these regulations.
3. Modifications of these regulations were issued, for specific buildings, by the State Corporation Commission (April 12, 1949 to June 30, 1978) and by the Department of Housing and Community Development (July 1, 1978 to July 1, 1988). Information regarding these modifications may be obtained from the Code Development Office.
4. The Regulations are in three parts. Part A is general application and administration. Part B is applicable to buildings built between April 12, 1949 and September 1, 1973. Part C is applicable to buildings built prior to April 12, 1949.
5. Regulations which address the change in use of buildings are superseded by the Uniform Statewide Building Code when the change in use occurred after September 1, 1973.

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ARTICLE 1

GENERAL APPLICATION AND ADMINISTRATION

SECTION 100 SCOPE

100-1 Short Title

These regulations, formerly known as the "Virginia Public Safety Regulations" were made a part of the Statewide Fire Prevention Code by the 1988 Legislature. They include the State Fire and Public Building regulation in effect on March 31, 1986. As used in these Regulations "Law" shall mean the Statewide Fire Prevention Code Act; "Code" shall mean Statewide Fire Prevention Code. "Board" shall mean the Board of Housing and Community Development.

100-2 Application

These Regulations shall apply to all public buildings, constructed and/or occupied before the effective date of the Uniform Statewide Building Code, which are defined and include any buildings or structure, permanent or temporary, which is used or occupied, by ten or more persons who are employed, lodged, housed, assembled, served, entertained or instructed therein, and without limiting the foregoing, includes hotels, schools and colleges, hospitals of all kinds, asylums, mercantile establishments, office buildings and structures of the same or similar character or the same or similar use, including buildings owned and occupied by the Commonwealth or by any of its political subdivisions. "Public building" shall also mean all homes for adults licensed or subject to licensure pursuant to Chapter 9 (§63.1-172 et seq.) of Title 63.1 of the Code of Virginia and all residential care facilities operated by any state agency.

SECTION 101 ENFORCEMENT

101-1 General

These Regulations shall be enforced in accordance with Article 1 of the Virginia Statewide Fire Prevention Code and Title 27, Article 3, Chapter 9 of the Code of Virginia.

SECTION 102 MODIFICATION

102-1 When Regulations May be Modified

Where the purpose of any provision of these Regulations, as it pertains to safety to life and property from fire, can be fulfilled by other means in the case of a specific building, the fire official having jurisdiction may modify the provision to permit certain specified alternatives.

ARTICLE 2

DEFINITIONS

SECTION 200. DEFINITIONS

- (a) Unless otherwise expressly stated, the following terms shall have the meanings indicated in this Section.
- (b) Words used in the present tense include the future; words in the masculine gender include the feminine and neuter; the singular number includes the plural and the plural the singular.
- (c) Where terms are not defined in this Section they shall have their ordinarily accepted meanings or such as the context may imply.

"ALLEY" means any public space or thoroughfare twenty feet or less in width which has been dedicated or deeded for public use.

"ALTERATION", as applied to a building or structure, means a change or rearrangement in the structural parts or in the exit facilities; or an enlargement, whether by extending on a side or by increasing in height; or the moving from one location or position to another. The term **"ALTER"**, in its various moods and tenses and its participial forms, refers to the making of an alteration.

"APARTMENT" means a room, or a suite of two or more rooms, in a Group C building occupied as the home or residence of an individual, family or household.

"APARTMENT HOUSE" means a building in which three or more apartments are located. Rooming houses are considered to be apartment houses.

"APPROVED", as applied to a material, device, mode of construction or as otherwise used in these Regulations means approved by the fire official having jurisdiction.

(Note: Equipment listed as satisfactory for specific purposes by nationally recognized testing laboratories (such as the Underwriters' Laboratories, Inc., the Factory Mutual Laboratories, and the American Gas Association), when installed and used for the purposes intended, will be accepted as approved, unless specifically prohibited elsewhere in these Regulations.)

"APPROVED MASONRY" means masonry constructed of brick, stone, concrete, hollow block, solid block, or other material, or a combination of these materials as approved by the fire official having jurisdiction (See Section 500 or 1500).

"AREA", as applied to the dimensions of a building, means the maximum horizontal projected area of the building at grade.

"AUTOMATIC", as applied to a fire door or other opening protective, means normally held in an open position and automatically closed by a releasing device that is actuated by abnormal high temperature, by a predetermined rate of rise in temperature, or by the presence of smoke.

"BALCONY", as applied to a theatre or auditorium, means the seating tier next above the main floor.

"BASEMENT" means that story of a building the floor of which is not less than two feet below grade and the ceiling of which is not less than four feet and six inches, but not more than seven feet and six inches, above grade.

"BUILDING" means a public building as defined in Paragraph 100-2(a). The term "Building" shall be construed as if followed by the words "or part thereof". When a building is divided by a Fire Wall or Fire Walls into two or more sections, each section shall be regarded as a

separate building.

"CELLAR" means that story of a building the ceiling of which is entirely below or less than four feet and six inches above grade.

"CONCRETE" means a mixture of portland cement, aggregate and water, of such materials, proportions, and manipulation as to give specified results.

"ELEVATOR" means a device within or in connection with a building used for carrying persons or things upward or downward; and includes dumbwaiter and similar devices, but does not include moving stairways.

"EXISTING" means heretofore erected or installed.

"EXIT DOORWAY" means a doorway leading into an Exitway or to a street or to an open place giving safe access to a street.

"EXIT FACILITY" - See Subsection 401-1.

"EXITWAY" means the necessary combination of "Exit Facilities" through which persons may proceed safely in case of emergency from any floor of a building to the main entrance floor or to a street or an open space which provides safe access to a street; provided that Exitways from the main entrance floor shall discharge directly to a street or an open space which gives safe access to a street.

"FIRE DIVISION" A building is considered to be located in a fire division when, due to segregation by open space, Fire Walls or other means of protection, a fire therein, under normal conditions, would burn itself out without spreading to buildings or combustible materials outside the fire division, and in which a fire originating in buildings or combustible materials outside such fire division would burn itself out without spreading to a building in the fire division.

"FIRE DOOR" means a door and its assembly, so constructed and assembled in place as to give the specified protection against the passage of fire.

"FIRE OFFICIAL HAVING JURISDICTION" means the fire official appointed by the local government in accordance with §27-98 Code

of Virginia and F-102,1 of the Statewide Fire Prevention Code or the State Chief Fire Marshal in those jurisdiction who have not chosen to enforce the Statewide Fire Prevention Code.

"FIRE PARTITION" - See Section 502 or 1502.

"FIRE RESISTANCE RATING" means the time in hours that the material or construction will withstand the standard fire exposure as determined by a fire test made in conformity with the "Standard Methods of Fire Tests of Building Construction and Materials" of the American Standards Association, or any rating accepted by the fire official having jurisdiction for a type of construction. Fire resistance ratings for materials or constructions which are set forth in any of the Codes or Standards recognized by Section 500 will be accepted by the fire official having jurisdiction. Materials or construction rated as "combustible" shall not be acceptable for specified rating of over one hour.

"FIRE WALL" means a wall constructed in accordance with Section 501 or 1501, for the purpose of subdividing a building or separating buildings to restrict the spread of fire and which starts at the foundation and extends continuously through all stories.

"FIREPROOF CONSTRUCTION" - See Subsection 301-1.

"FLAMMABLE LIQUID" means a liquid having a flash point not greater than two hundred degrees, Fahrenheit.

"FLAMEPROOF" as applied to decorations, curtains, draperies, scenery, tents, woodwork or other normally combustible materials means treated so it will not propagate flame.

"FLOOR AREA" means a floor space enclosed by walls or partitions, provided that where the building has any side open the floor line shall determine the limit of that side. In the case of structures such as stadiums which are neither enclosed nor roofed over, the floor area shall be considered as the projected area on a horizontal plane.

"FRAME CONSTRUCTION" - See Subsection 301-1.

"GALLERY" means any seating tier above the balcony in a Place of Assembly.

"GARAGE" means a building in which a motor vehicle containing flammable liquid or flammable gas in its fuel storage tank is stored, housed or kept.

"GRADE", with reference to a building, means, when the curb level has been established, the mean elevation of the curb level opposite those walls that are located on, or paralled with and within fifteen feet of, street lines; or, when the curb level has not been established, or all the walls of the building are more than fifteen feet from street lines, "grade" means the mean elevation of the first ground surface adjoining the building along such wall.

"GROUP A BUILDING" - See Section 300.

"GROUP B BUILDING" - See Section 300

"GROUP C BUILDING" - See Section 300

"GROUP D BUILDING" - See Section 300

"GROUP E BUILDING" - See Section 300

"HALLWAY" means an enclosed area within a building devoted to the horizontal movement of persons or goods.

"HEAVY-TIMBER CONSTRUCTION" - See Subsection 301-1.

"HEIGHT", as applied to a building, means the vertical distance from grade to the highest finished roof surface in the case of flat roofs or to a point at the average height of roofs having a pitch of more than one foot in four and one-half feet; "height" of a building in stories does not include basement and cellar stories.

"HEIGHT", as applied to a court, means the vertical distance from the level of the floor of the lowest story served by that court to the level under consideration.

"HEIGHT", as applied to a story, means the vertical distance from top to top of two successive tiers of floor beams or finished floor surfaces.

"HEIGHT", as applied to a wall, means the vertical distance to the top

measured from the foundation wall, or from a girder or other immediate support of such wall.

"HEREAFTER", as used in connection with any provision of these Regulations, present or future, means after April 12, 1949 and before the effective date of the Uniform Statewide Building Code.

"HERETOFORE", as used in connection with any provision of these Regulations, present or future, means before April 12, 1949.

"HOTEL" means a building in which rooms are rented for temporary occupancy for lodging purposes and includes commercial hotels, resort hotels, tourist courts, lodging houses and buildings similarly occupied.

"LODGING HOUSE" - See "Hotel".

"LOT" means a portion or parcel of land considered as a unit, devoted to a certain use or occupied by a building or a group of buildings that are united by a common interest or use, and the customary accessories and open spaces belonging to the same.

"LOT LINE" means a line dividing one lot from another, or from a street or other public space.

"MASONRY" - See "Approved Masonry".

"MEZZANINE" means a partial floor.

"MULTIFAMILY HOUSE" means a building occupied as the home or residence of individuals, families or households living independently of each other, of which 4 or more are doing cooking within their apartments; including tenement house, apartment house, flat. A row of 4 or more single family houses not separated by Fire Walls is considered to be a multifamily house.

"OCCUPIED", as applied to a building, shall be construed as though followed by the words "or intended, arranged or designed to be occupied."

"3/4-HOUR FIRE RESISTING PARTITION" - See Section 503 or 1503.

"ORDINARY CONSTRUCTION" - See Subsection 301-1.

"PENTHOUSE" means an enclosed structure other than a roof structure, located on the roof, extending not more than twelve feet above the roof.

"PLACE OF ASSEMBLY" means a room or space in which one hundred or more persons are congregated for religious, recreational, educational, political, social or amusement purposes or for the consumption of food or drink. Such room or space shall include any occupied appurtenant rooms or space.

"PROSCENIUM WALL" means the wall which separates the stage section of a building from the auditorium.

"PUBLIC BUILDING" - See Paragraph 100-2(a).

"REPAIR" means the replacement of existing work with the same kind of material used in the existing work, not including additional work that would affect the structural safety of the building, or that would affect or change required exit facilities, or that would affect a vital element of an elevator, gas piping, wiring or heating installation, or that would be in violation of a provision of these Regulations.

"REQUIRED" means required by some provision of these Regulations.

"ROOF STRUCTURE" means a structure above the roof of any part of a building enclosing a stairway, tank, elevator machinery or ventilating apparatus, or such part of a shaft as extends above the roof.

"ROOMING HOUSE" - See "Apartment House."

"SELF-CLOSING", as applied to a fire door or other opening protective, means normally closed and equipped with an approved device which will insure closing after having been opened for use.

"SEMI-FIREPROOF CONSTRUCTION" - See Subsection 301-1.

"SHAFTWAY" means the space formed by the vertical projection between unpierced floors or roof of an opening in any intermediate floor or floors.

"SOLID BLOCK" means a building unit of burnt clay, concrete, or other

approved incombustible material the gross cubic content of which is not less than fifty per cent greater than the standard size of brick, and in which there are no cellular spaces, not including the scoring of the face, exceeding in the aggregate twenty-five per cent of the gross cubic content of the unit.

"SPRINKLERED" means equipped with an approved automatic sprinkler system, properly maintained.

"STAIRWAY" means one or more flights of stairs and the necessary landings and platforms connecting them, to form a continuous and uninterrupted passage from one story to another in a building or structure.

"STANDARD FIRE TEST" means the fire test formulated under the procedure of the American Standards Association as "American Standard" and designed as American Standard A2.1-1942.

"STORAGE BUILDING" - See Subsection 300-1.

"STORY" means that part of a building between a floor and the floor or roof next above; provided that such space above a mezzanine, the area of which is 25 per cent or less of the area of the floor below, is not considered as a separate story. Basements and cellars are stories for all purposes of these Regulations except the computation of "height" in stories.

"STREET" means any public thoroughfare (street, avenue, boulevard, park) or space more than twenty feet in width which has been dedicated or deeded for public use.

"STREET LINE" means a lot line dividing a lot from a street.

"UNPROTECTED METAL CONSTRUCTION" - See Subsection 301-1.

"VERTICAL OPENING" means a communicating opening between two stories of a building.

"WALLS"

"Bearing Wall" means a wall which supports any vertical load in addition to its own weight.

"Curtain Wall" means a non-bearing wall between columns or piers and which is not supported by girders or beams.

"Foundation Wall" means a wall below the first floor extending below the adjacent ground level and serving as support for a wall, pier, column or other structural part of a building.

"Non-bearing Wall" means a wall which supports no load other than its own weight.

"Panel wall" means a non-bearing wall in skeleton construction, built between columns or piers and wholly supported at each story.

"Party wall" means a wall used or adapted for joint service between two buildings.

ARTICLE 3

CLASSIFICATION AND RESTRICTIONS

SECTION 300. CLASSIFICATION OF OCCUPANCIES

300-1 Classes Designated

- (a) For the purpose of these Regulations, buildings are classified, with respect to occupancy and use, as Group A, Group B, Group C, Group D and Group E.
- (b) **"GROUP A BUILDINGS"** means a building in which persons congregate for civic, political educational, religious, social or recreational purposes; including among others,

armories	colleges	lodge rooms
assembly halls	court houses	motion picture theatres
auditoriums	dance halls	museums
bath houses	exhibition buildings	passenger stations
bowling alleys	grandstands	recreation piers
churches	gymnasiums	restaurants

city halls	lecture halls	schools
club rooms	libraries	skating rinks
		stadiums
		theatres

- (c) **"GROUP B BUILDING"** means a building in which persons are harbored to receive medical, charitable or other care or treatment, or in which persons are held or detained by reason of public or civic duty, or for correctional purposes; including among other,

asylums	infirmaries	reformatories
homes for the aged	jails	sanitariums
hospitals	nurseries	school, orphanage, and
houses of correction	penal	other dormitories for
	institutions	children below high
		school age

- (d) **"GROUP C BUILDING"**, Except when classed as a Group B building, means a building in which sleeping accommodations are provided; including among others,

apartments	convents	multifamily houses
club houses	lodging houses	tenements
		school, orphanage, and hotels
		other dormitories for children of
		high school age or older

- (e) **"GROUP D BUILDING"** means a building occupied for the transaction of business, for the rendering of professional services, for the display or sale of goods, wares or merchandise, or for the performance of work or labor; including among others,

bakeries	laundries
banks	markets
factories	office buildings
ice plants	stores
laboratories	telephone exchanges
	workshops

- (f) **"GROUP E BUILDING"** means a building for the housing,

except for purely display purposes, of airplanes, automobiles, railway cars or other vehicles of transportation, for the sheltering of horses, live stock or other animals, or exclusively for the storage of goods, wares or merchandise, not excluding in any case offices incidental to such uses; including among others,

freight depots	hangars
garages	storage warehouses
grain elevators	

300-2. Mixed Occupancy

In case a building is occupied for two or more purposes not included in one class, the provisions of these Regulations applying to each class of occupancy shall apply to such parts of the building as come within that class; and if there should be conflicting provisions, the requirements securing the greater safety shall apply.

300-3. Doubtful Classification

In case a building is not specifically provided for, or where there is any uncertainty as to its classification, its status shall be fixed by the fire official having authority, giving due regard to safety.

SECTION 301. CLASSIFICATION OF CONSTRUCTION

301-1. Types Designated

(a) For the purposes of these Regulations, construction as used in buildings shall be classified as follows. The order of classification is from most restrictive to least restrictive.

- (1) Fireproof
- (2) Semi-fireproof
- (3) Heavy Timber
- (4) Ordinary
- (5) Noncombustible
- (6) Frame
- (7) Unprotected Metal

TABLE I
REQUIRED FIRE RESISTANCE RATINGS OF STRUCTURAL ELEMENTS IN HOURS

STRUCTURAL ELEMENT	TYPE OF CONSTRUCTION		
	Fire-proof	Semi-Fire-proof	
EXTERIOR BEARING WALLS	4	3	
EXTERIOR NON-BEARING WALLS, when having the following distance to a lot line or to another structure, whichever is nearer, except that measurements may be taken from opposite sides of streets.	Less than 6 ft.	4	3
	6 ft. or more, but less than 11 ft.	3	2
	11 ft. or more, but less than 21 ft.	2	1½
	21 ft. or more, but less than 30 ft.	1½	1½
	30 ft. or more	0	0
INTERIOR BEARING WALLS & PARTITIONS	4	3	
COLUMNS, GIRDERS, BEAMS, TRUSSES and similar members other than Roof Trusses.	Supporting masonry or bearing walls	3*	2*
	Supporting one floor	3	2
	Supporting more than one floor	4	3
FLOOR CONSTRUCTION	3	2	
ROOF CONSTRUCTION AND ROOF TRUSSES AND FRAMING, when height to lower chord from highest floor, balcony or mezzanine is:	15 ft. or less	2	1½
	More than 15 ft., but less than 20 ft.	¾	¾
	20 ft. or more	0	0

*But not less than the required fire resistance of the wall supported.

- (b) **"FIREPROOF"** construction, as applied to a building, means that in which the structural members, including interior and exterior bearing walls and exterior non-bearing walls, are of approved incombustible construction having the necessary strength and stability and having a fire resistance rating of not less than shown in Table 1. A combustible roof may be used when it is protected by an approved automatic sprinkler system and the ceiling of the top story is of Fireproof construction.
- (c) **"SEMI-FIREPROOF"** construction, as applied to a building, means that in which the structural members, including interior and exterior bearing walls and exterior non-bearing walls, are of approved incombustible construction having the necessary strength and stability and having a fire resistance rating of not less than shown in Table 1. A combustible roof may be used when it is protected by an approved automatic sprinkler system and the ceiling of the top story is of semi-fireproof construction.
- (d) **"HEAVY TIMBER"** construction, as applied to a building, means that in which the exterior walls and bearing walls are of an approved masonry or reinforced concrete and in which the interior structural elements, including columns, floors, and roof construction, consist of an approved assembly of heavy timbers with smooth flat surfaces assembled to avoid thin sections, sharp projections and concealed or inaccessible spaces, or are of incombustible materials protected to have a fire resistance rating of not less than 3/4 hour, and in which all structural members which support masonry walls shall have a fire resistance rating of not less than three hours.
- (e) **"ORDINARY"** construction, as applied to a building, means that in which exterior walls and bearing walls are of approved masonry or reinforced concrete and in which the structural elements are wholly or partly of wood of smaller dimensions than required for Heavy Timber construction, or of other materials not protected as required for Heavy Timber construction.

- (f) **"NONCOMBUSTIBLE"** construction, as applied to a building, means that in which all structural members including walls, floors, roofs and their supports, are of steel, iron, concrete, or of other incombustible materials, and in which the exterior walls have not less than a two-hour fire resistance rating as tested for an interior and an exterior fire.
- (g) **"FRAME"** construction, as applied to a building, means that in which walls and interior construction are wholly or partly of wood.
- (h) **"UNPROTECTED METAL"** construction, as applied to a building, means that in which the structural supports are unprotected metal and in which the roofing and walls or other enclosures are of sheet metal, or of other incombustible materials, or of masonry deficient in thickness or otherwise not conforming to approved masonry.

301-2. Partial Compliance

Nothing in these Regulations shall require full compliance with a type of construction, if, under these Regulations, a less restrictive type of construction is permitted; but no building shall be deemed of a given type of construction unless it conforms with all specific provisions of these Regulations applying to that type.

SECTION 302. RESTRICTIONS ON TYPES OF CONSTRUCTION

302-1. General

- (a) Buildings constructed between April 12, 1949 and the effective date of the Uniform Statewide Building Code which exceed the height limitations fixed in these Regulations for Semi-fireproof construction shall be of Fireproof construction.
- (b) When a change of occupancy occurred before September 1973 which resulted in a violation of the height limitation listed in Table 2, the fire official having jurisdiction may authorize continued use of occupancy when it involved a move from a more hazardous building and the original building is not used for any purpose in violation of the

height limitation for a building listed in Table 2. Any changes of occupancy after the effective date of the Uniform Statewide Building Code shall conform to the requirements of the Uniform Statewide Building Code in effect at that time.

302-2. Special Occupancies

A. Requirements applicable to special occupancy buildings constructed and/or occupied between April 12, 1949 and the effective date of the Uniform Statewide Building Code.

- (1) The following Group A buildings shall be of Fireproof or Semi-fireproof construction, except that portions of such buildings not over one story or over 45 feet in height may have combustible roof construction if protected by Fire Retardant Ceilings. In schools this provision applies only to the portion of the building (including appurtenant rooms) which contains one of the following occupancies.
 - (a) Theatres, motion picture theatres, or auditoriums having provisions for the vertical movement of scenery.
 - (b) Theatres, motion picture theatres, or auditoriums having seating facilities on more than one tier above the main floor.
 - (c) Theatres, motion picture theatres, or auditoriums whose capacities exceed 800 persons.
 - (d) Buildings housing theatres, motion picture theatres, dance halls, roof gardens, night clubs, skating rinks, lodge halls, lecture halls, auditoriums, or gymnasiums with a capacity in excess of 600, located on any floor other than the main entrance floor.
- (2) No theatre or motion picture theatre with a capacity in excess of 200 shall be located in a building of Frame or Unprotected Metal construction.
- (3) Any Group B building shall be of Fireproof or Semi-

fireproof construction except as follows:

- (a) Such buildings where occupants are involuntarily detained or bed-ridden may be of other types of construction provided they do not exceed one story in height and all structural members, including columns, floors, walls and partitions, are of incombustible material and have a fire resistance rating of not less than 3/4 hour.
- (b) Such buildings where the occupants are not involuntarily detained or bed-ridden may be of other types of construction provided they do not exceed two stories in height and the floors and partitions have a fire resistance rating of not less than 3/4 hour with Fire Retardant ceilings under roof and further provided that Frame construction shall not exceed one story in height.

B. Requirements applicable to special occupancy buildings constructed prior to April 12, 1949 or converted to a special occupancy after April 12, 1949 and prior to the effective date of the Uniform Statewide Building Code.

- (1) Any building used or converted to use as a Place of Assembly which does not comply with Section 302-2(a) and (b), and which is of Ordinary, Non Combustible or Heavy Timber construction, and has seats or capacity for less than 300 persons on tier or tiers above the main floor, may be continued in use provided:
 - (a) All other applicable provisions of these Regulations for existing buildings are met, and
 - (b) No stage therein is equipped for the vertical shifting of scenery, and
 - (c) All remaining scenery, stage curtains and stage drapes are maintained flameproof.
- (2) Any other building used or converted to use as a Group A or Group B building shall comply with section 302-2, or

shall be altered by direction of the fire authority having jurisdiction to the minimum extent necessary to provide reasonable safety to life. Such alterations may include:

- (a) Reduction in size or capacity.
- (b) Elimination of hazardous features.
- (c) Reduction in amount of combustible contents.
- (d) Provision of additional means of egress
- (e) Other measures deemed necessary by the fire authority having jurisdiction.

SECTION 303. HEIGHT RESTRICTIONS

303-1. General

Buildings constructed or altered between April 12, 1949 and the effective date of the Uniform Statewide Building Code shall conform to the following height restrictions.

- (a) No building shall exceed in height the limits fixed in this section unless approved by the fire official.
- (b) No building shall be altered so as to exceed the limits of height fixed by this section.
- (c) Maximum building height limits shall be as shown in Table 2.

(Note: See Section 302-2 for height limits for certain special occupancies. See Section 601 and 1601 for sprinkler requirements based on height and occupancy. See subsection 303-4 for general exceptions.)

303-2. Exceptions

- (a) For the purpose of this Section, the following appurtenances shall not be deemed parts of buildings: church spires, tanks and their supports, roof structures, chimneys, signs attached

to the building, radio masts, water cooling towers for air conditioning or other apparatus, and parapets that do not extend more than four feet above the roof surface at their point of contact.

- (b) Structures of Unprotected Metal construction used in connection with water tanks and industrial processes shall not be limited as to height.
- (c) One story wings of Noncombustible or Unprotected Metal construction, without basements or cellars, may be attached to Fireproof or Semifireproof buildings. This exception does not apply to Group B buildings where the occupants are bedridden or involuntarily detained.

SECTION 304. ADDITIONS

304-1. General Requirements for Additions

Additions to buildings between April 12, 1949, and the effective date of the Uniform Statewide Building Code shall comply with the applicable requirements of Part A and B of these regulations.

304-2. When Additions are Prohibited and Fire Walls are Required

- (a) No addition shall be made to a building when the building being added to exceeds the height limits established in Table 2 unless the addition is protected therefrom by a fire wall.
- (b) No addition shall be made that exceeds the height limits established in Table 2 for the occupancy classification of the building being added to unless the latter is protected from the addition by a fire wall.

(Note: See Section 501 for construction of Fire Walls.)

304-3. Exits from Additions

Additions shall have means of egress conforming to Article 4.

(Note 1: See Section 402-4(b) for an exception to this rule for school and Group B buildings.)

(Note 2: Under this rule it would be permissible for an addition to make use of surplus exit capacity in the older building if the older Exitways meet all the requirements of Article 4 as to location, enclosure, etc.)

304-4 When Additions Must be Protected by Fire Partitions

When a three-story or higher addition has been made, prior to the effective date of the Uniform Statewide Building Code, to a building which is three-story or higher, the addition shall be separated by a Fire Partition unless all vertical openings are protected by material having a 3/4 hour fire resistance rating and installed so as to prevent a fire originating on any floor from spreading to any other floor.

(Note 1: See Section 502 for construction of Fire Partitions.)

(Note 2: See Section 503 for construction of 3/4-hour Fire Resisting Partitions.)

PART B

**FIRE SAFETY REQUIREMENTS APPLICABLE TO
BUILDINGS CONSTRUCTED**

OR

**OCCUPIED BETWEEN APRIL 12, 1949 AND
SEPTEMBER 1, 1973**

ARTICLE 4**MEANS OF EGRESS****SECTION 400. APPLICATION OF ARTICLE****400-1 Application**

Buildings constructed or altered between April 12, 1949 and the effective date of the Uniform Statewide Building Code shall be provided with means of egress in accordance with the requirement of this Article.

400-2 Alterations

Any building altered between April 12, 1949 and the effective date of the USBC shall be so arranged as not to reduce the number or capacity of Exitways to less than required for buildings of similar construction and number of occupants.

SECTION 401. GENERAL**401-1. Composition of Exitways**

- (a) "Exitway" means the necessary combination of "Exit Facilities" through which persons may proceed safely in case of emergency from any floor of a building to the main entrance floor or to a street or an open space which provides safe access to a street; provided that Exitways from the main entrance floor shall discharge directly to a street or an open space which gives safe access to a street. An Exitway must be readily and easily accessible from all points of the floor which it serves.

(Note: See Section 401-2(a) for modification of this rule.)

- (b) Exitways shall be composed only of an appropriate combination of such Exit Facilities as are permitted by this Article.
- (c) Exit Facilities permitted for use in Exitways are:

- (1) Interior Exit Stairways (Section 404)
- (2) Fire Towers (Section 405)
- (3) Horizontal Exits (Section 406)
- (4) Exterior Exit Stairways (Section 407)
- (5) Exit Ramps (Section 408)
- (6) Slide Type Fire Escapes (Section 409)
- (7) Exit Hallways (Section 410)
- (8) Exit Doorways (Section 411)

Such Exit Facilities shall conform to the appropriate provisions of this Article, and each shall be limited as to use in Exitways as specified in the individual Section governing it.

401-2. Arrangement of Exitways

- (a) All Exitways from Group A and B buildings shall discharge directly to a street or an open space which gives safe access to a street, and when two or more Exitways are required from Group C, D, and E buildings, at least one shall discharge directly to a street or an open space which gives safe access to a street.
- (b) Two or more separate Exitways may lead through a common Exit Hallway on the ground floor provided the Exit Hallway discharges to the outside.
- (c) When a lobby, foyer or waiting room discharges directly to the outside, and the fire official having authority is satisfied that only a negligible amount of combustibles will be introduced therein, it may permit Exitways to utilize such a room as an Exit Facility when:
 - (1) The room is otherwise constructed as an Exit Hallway,
or

- (2) The adjoining rooms are sprinklered, or
- (3) The adjoining rooms are cut off therefrom by 3/4-hour Fire Resisting Partitions.

401-3. Number of Occupants

- (a) The dimensions and capacity of Exitways shall be proportioned to the number of persons to be accommodated from each floor, and only the population of the floor in question need to be considered when computing exit capacity; provided that Exitways shall not be decreased in width in the direction of normal exit travel.
- (b) When the number of persons to be accommodated by the Exitway is not ascertainable, it shall be decided on the basis of the gross area of the space devoted to a particular purpose and shall be assumed to be as follows:

Occupancy	Gross area per person
Dance hall, lodge room, or Place of Assembly	15 Sq Ft
Store-street floor and sale basement.	30 Sq Ft
Other floors.	60 Sq Ft
School auditoriums and gymnasiums.	6 Sq Ft
School cafeterias.	10 Sq Ft
School libraries.	25 Sq Ft

Space used for occupancies not listed above:

Group A.....40 Sq. Ft.

Group B.....150 Sq. Ft.

Group C.....	125 Sq. Ft.
Group D.....	100 Sq. Ft.
Group E.....	300 Sq. Ft.

402-1. From Stories

- (a) Every story shall have at least one Exitway and every story that exceeds 4,000 square feet in area shall have at least two separate Exitways.
- (b) Exception: In apartment houses and multifamily houses any story more than 4,000 square feet in area but not more than 5,000 square feet in area may have a single Exitway under the following conditions:
 - (1) There shall be no more than 4 apartments per floor.
 - (2) Buildings of Fireproof or Semi-fireproof construction shall be limited to 3 stories in height and a single basement or cellar. Buildings of Heavy Timber, Ordinary and Noncombustible construction shall be limited to 2 stories in height and a single basement or cellar. Buildings of other classifications of construction are not eligible for this exception.
 - (3) The interior Exit Stairway shall be enclosed with Fire Partitions.

(Note: See Section 502 for construction of Fire Partitions.)
 - (4) Interior finish for walls and ceilings in the Interior Exit Stairway enclosure and all blocking and furring to which interior finish is attached shall have a flame-spread rating of not more than 25 as classified in accordance with the Method of Test of Surface Burning Characteristics of Building Materials, American Society for Testing and Materials No. E-84. Interior finish not in excess of 10 per cent of the aggregate wall and ceiling areas in the stair enclosure may have a

flamespread rating of not more than 200 when used for trim, handrails and other incidental finish.

- (5) The stair enclosure and the stairs shall be of noncombustible materials except for minor amounts of combustible trim and incidental finish as permitted in Item (4) above.
- (6) Every sleeping room shall have a window, door or other opening directly to the outside which can be opened from the inside without the use of tools to provide a clear opening of not less than 16 inches in least dimension and 400 square inches in area, with the bottom of the opening not more than 38 inches above the floor, unless the sleeping room has 2 doors providing separate ways of escape to a room having such window, door or other opening.

402-2. Places of Assembly

- (a) Every room, gallery, balcony, tier, or other space having a capacity of 100 or more persons shall be provided with at least two doorways, and where the capacity is more than 600 persons, at least three doorways, and where the capacity is more than 1,000 persons, at least four doorways. Such doorways shall be located a reasonable distance apart so that if one becomes blocked, the others will be available. The doorways shall conform to the design requirements of Section 411 for Exit Doorways and shall be marked and lighted as required for Exit Doorways in Section 412. They shall be so located that the Exitways from the floor are readily and easily accessible therefrom.
- (b) Every room, gallery, balcony, tier, or other space having capacity of more than 200 persons shall have access to at least two Exitways, and where the capacity is more than 600 persons, at least three Exitways, and where the capacity is more than 1,000 persons, at least four Exitways.

402-3. Residence Occupancy Located Above a Business Occupancy

Residence occupancies located above a business occupancy shall be

provided with an Exitway in addition to any extending through the business area.

402-4. School Buildings and Group B Buildings

- (a) Every story of school buildings and of Group B buildings shall have at least two separate Exitways, except that neither this requirement nor any other requirement for multiple Exits shall apply to buildings occupied by persons under legal restraint.

(Note: The term, "persons under legal restraint" applies only to persons who are of sound mind and are not bed-ridden.)

- (b) When an addition not exceeding 4,000 square feet in area is made to a school building or Group B building prior to the effective date of the USBC and is completely separated therefrom by a Fire Wall or a Fire Partition, an opening in the Fire Wall or Fire Partition may be accepted as one of the required Exitways from the addition. The other required Exitway must be in the addition.

(Note 1: See Section 501 for construction of Fire Walls.)

(Note 2: See Section 502 for construction of Fire Partitions.)

SECTION 403. LOCATION OF EXITWAYS

403-1. How Exitways are to be Located

- (a) Exitways shall be so located that no point in a floor area, room or space served by them is more than 100 feet distant from an Exitway measured along the line of travel; except that when a floor area is subdivided into smaller areas, such as rooms in hotels, multifamily houses, and office buildings, the distance from the door of any room along an unobstructed hallway, to an Exitway shall be not more than 100 feet in Group C buildings and not more than 125 feet in other occupancies except that hallways above the first story

shall not extend beyond an Exitway as a dead end more than 50 feet. Where the building is of Fireproof construction or Semi-fireproof construction, or the building is sprinklered, the above distances may be increased 50 per cent. For single story industrial and Class E buildings the distance to the nearest Exitway from any point may be 150 feet for unsprinklered buildings and 250 feet for sprinklered buildings.

- (b) Exitways shall be located with proper regard to safety of the occupants and ease of exit. The size and shape of the room or space, the accessibility of streets and open spaces, the ability to use Horizontal Exits, and the desirability of good separation of Exitways shall be considered.

SECTION 404. INTERIOR EXIT STAIRWAYS

404-1. Construction and Arrangement of Interior Exit Stairways

- (a) Interior Exit Stairways shall be constructed of incombustible materials throughout, except in buildings of Frame construction, and in buildings of Ordinary construction not exceeding 30 feet to the floor of the topmost story and occupied by not more than 75 persons above, or 40 persons below, the first story above grade. All such stairways shall have risers securely fastened in place, and, except in industrial and Class E buildings, risers shall be solid.
- (b) When treads or landings are of slate, marble, stone or composition, they shall be substantially supported for their entire length and width.
- (c) Treads and landings shall be constructed and maintained in a manner to prevent persons from slipping thereon.
- (d) The continuity of all stairs which may be used for exit purposes shall be interrupted at street level by partitions or doors, or other means shall be used to indicate the main floor level and make clear the direction of egress to the street.

404-2. Enclosure

- (a) All interior stairways connecting two or more stories, whether used as Interior Exit Stairways or not, shall be enclosed, except as otherwise provided in Paragraph (d) below.
- (b) Interior stairways shall be enclosed with Fire Partitions in unsprinklered buildings 4 stories or more in height.

(Note: See Section 502 for construction of Fire Partitions.)

- (c) In other buildings interior stairways shall be enclosed in partitions having a fire resistance rating of not less than 3/4 hour.
- (d) An enclosure shall not be required for:
 - (1) A flight of stairs from any floor to the floor next above when such stairs are not a part of an Exitway and are enclosed at the upper floor and connect only the two floors.
 - (2) A flight of stairs in a building of Fireproof construction, Semi-fireproof construction, or a sprinklered building of Heavy Timber construction or Ordinary construction, or noncombustible construction, when such stairs connect only one story with one other story immediately above or below it and are not a part of an Exitway. In such case the upper end of the stairway shall not connect to an Exit Hallway except through a fire door.
 - (3) A flight of stairs from a balcony or mezzanine having an area not exceeding 25% of that of the story immediately below, except that stairs from the first floor to the first balcony or mezzanine need not be enclosed in Places of Assembly.
 - (4) Stairways in Group A and D buildings under the following conditions:

The building must not exceed two stories in height.

The stairway must connect only one story with one other story immediately above or below it.

Not less than two well separated Exitways shall be provided from each occupied floor.

Interior Exit Stairways shall discharge directly to the outside at ground level in such a manner that it shall not be necessary for persons using the stair to pass through any corridor, lobby or other space outside the normal confines of the stairway area.

Interior Exit Stairways from basements and cellars shall be fully enclosed.

Other stairways from basements and cellars shall be enclosed at head or foot unless the basement is sprinklered.

- (5) Stairways in buildings occupied by persons under legal restraint.

(Note: The term, "persons under legal restraint" applies only to persons who are of sound mind and are not bed-ridden.)

- (e) No openings except the necessary Exit and entrance doorways, and windows opening to the exterior of the building, will be permitted in a required stairway enclosure. Such doorways shall be equipped with approved selfclosing fire doors, except that when Fire Partitions are not required for the enclosures, substantial selfclosing metal or metal covered doors or solid wooden doors of the flush type of nominal thickness not less than 1 3/4 inches may be used. In school buildings, doors on openings in stairway enclosures may have wired glass panels; the area of such glass in any one door shall not exceed 720 square inches. Doors protecting openings in required enclosures of stairways which are frequently used for other than emergency purposes and doors protecting openings in required enclosures of stairways in

sprinklered buildings may be arranged to close automatically in case of fire. Fastening devices may be omitted on doors protecting openings in stairway enclosures, except when enclosures are required to be Fire Partitions. Door closers shall be of an approved type.

404-3. Moving Stairways

- (a) Moving stairways moving in the direction opposite to that of egress which are equipped at the head of each flight with a device for stopping all flights simultaneously, and moving stairways moving in the direction of egress, may be considered as Exit Facilities, provided they conform in all respects to requirements of this Section for protection of required interior stairways, except the requirement for minimum width which shall be not less than 24 inches.
- (b) In sprinklered buildings moving stairways which are not considered as required Exit Facilities need not be enclosed as required for interior stairways, if enclosed in each story at the upper floor landing by an incombustible enclosure equipped with an approved double acting selfclosing or automatic door or doors of metal and wired glass. Wired glass in metal framework may be used for the enclosure provided no pane of glass has a length or width greater than 48 inches. The enclosure shall include a landing at each floor which is of sufficient length beyond the handrail and having a width not less than that of the floor opening.
- (c) In lieu of the enclosure requirements of Paragraph 404-3(b), above, the fire official having authority may, upon application, approve automatic water spray or other protection devices which it believes will accomplish the same results respecting safety to life.

404-4. Width

- (a) Except as provided in Paragraph 404-4(b), below, the required exit width of an Interior Exit Stairway shall be not less than 44 inches; provided that in multifamily houses and Group E buildings, and in other buildings occupied by a

single tenant and limited in occupancy to 40 persons, such width may be 36 inches.

- (b) Interior Exit Stairways from boiler rooms, service rooms, chemical process rooms, projection booths, elevator machinery rooms and similar rooms or spaces which are normally occupied by 10 or less people, and are not open to the general public, shall be of sufficient width to adequately serve their purpose in case of emergency. Where the room or space is normally unoccupied, ladders or other approved exit devices may be substituted for stairways as Exit Facilities.
- (c) The net clear width of an Interior Exit Stairway (i.e., the least distance between any combination of enclosure walls, balustrades, handrails, newels, etc.) shall not be less than the required exit width, except:
 - (1) When a handrail is attached to an enclosure wall of an Interior Exit Stairway, and projects not more than 3 1/2 inches from the wall, the handrail may be disregarded in measuring the net clear width.
- (d) The unit of stairway width used as a measure of exit capacity shall be 22 inches. Fractions of a unit shall not be included except that an allowance of 1/2 unit may be made for 12 or more inches of additional stairway width.
- (e) The aggregate width of Exit Stairway serving any story shall be in accordance with the following table and shall be based on the number of occupants of that story as determined by Subsection 401-3.

	Number of persons per Unit of Exit Width	
	Unsprinklered Buildings	Sprinklered Buildings
Places of Assembly on ground or street floor.....	100	150

Occupancies other than listed above:

Group A.....	60	90
Group B.....	30	45
Group C.....	30	45
Group D.....	60	90
Group E.....	60	90

Example of Stairway Width Calculation

Assume an unsprinklered 4-story apartment building (Group C occupancy) with a Place of Assembly (Group A occupancy) in the basement, with the gross floor areas below. Each story above the basement exceeds 4000 sq. ft. in area and, therefore, must have not less than two 44-inch stairs. The Place of Assembly in the basement accommodates over 200 persons (3300 sq. ft. 15 sq. ft./person) so it must also have two 44-inch stairs as a minimum.

- 4th floor.....7,875 Sq. Ft.
- 3rd floor.....18,000 Sq. Ft.
- 2nd floor.....18,000 Sq. Ft.
- 1st floor.....18,000 Sq. Ft.
- Basement.....3,300 Sq. Ft.

The aggregate required Exit Stair Width would be:

- (a) from 4th floor

$$\underline{7875 \text{ sq. ft.}} = 2.1 \text{ stair units}$$

125 sq. ft./person x 30 persons/unit hence, two 44-inch stairs would be adequate.

- (b) from 2nd and 3rd floors

$$\underline{18000} = 4.8 \text{ stair units}$$

125 sq. ft./person x 30 persons/unit hence, one 44-inch stairway plus one 56-inch stairway, or three 44-inch stairways, would be necessary.

(c) from Basement

$$\underline{3300 \text{ sq. ft.}} = 3.7 \text{ stair units}$$

15 sq. ft./person x 60 persons/unit hence, two 44-inch stairs would be adequate.

Note: If a basement stairway is a continuation of a stair from the second story, and both discharge at the same point, it is necessary to add the capacity of both flights in order to arrive at the required units of Exit Door Width.

Example: Suppose one of the 44-inch stairs from the basement joins a 56-inch stair from the 2nd story.

Capacity of 44-inch stairway is:

$$2 \frac{1}{2} \text{ units} \times 30 \text{ persons/unit} = 75 \text{ persons}$$

Therefore Total Capacity = 195 persons.

Thus, the doors leading to the outside would have to be designed to accommodate 195 persons. (Population of first floor need not be considered in this calculation).

404-5. Treads and Risers

- (a) Threads and risers of Interior Exit Stairways shall be proportioned for ease of exit. The risers shall not exceed $7 \frac{3}{4}$ inches in height, and treads, exclusive of nosing, shall be not less than 9 inches wide. Threads and risers shall be of uniform width and height in any one story. The sum of two risers plus one tread shall be not less than $23\text{-}\frac{1}{2}$ nor more than 25 inches. (b) The use of winders is prohibited in Exit Stairways.

404-6. Landings

- (a) No flight of stairs in an Interior Exit Stairway shall have a

vertical rise of more than 12 feet between floors or landings; except that in Interior Exit Stairways in Group A buildings such vertical rise shall not exceed 10 feet. No single flight of stairs shall have less than 3 risers.

- (b) The length and width of landings shall be not less than the width of stairways in which they occur and the doors of Exit Doorways shall be so hung and arranged that when fully opened they will not in any way diminish or obstruct the required width of hallway, stair or other Exit Facility.

404-7 Handrails

- (a) Stairs in Interior Exit Stairways shall have walls or well secured balustrades or guards on both sides.
- (b) Such stairs, when less than 44 inches in width, shall have handrails on at least one side.
- (c) Such stairs, when required to be 44 inches or more in width, shall have handrails on both sides.
- (d) When the required width of a flight of stairs exceeds 88 inches, an intermediate handrail with a maximum lateral spacing of 66 inches, continuous between landings, securely supported and terminating at the upper end in newels or standards, shall be provided.

SECTION 405. FIRE TOWERS

405-1. How Constructed

- (a) Except as specified below, Fire Towers, when installed, shall conform to the requirements of this Article for Interior Exit Stairways.
- (b) The enclosing walls shall be of approved masonry or reinforced concrete and there shall be no openings in such walls, except for the necessary doors or windows. The Fire Tower shall have a roof of Fireproof construction.

- (c) Access to the Fire Tower at each story served thereby shall be by vestibules or outside balconies having floors of incombustible materials and provided with substantial guard railings at least 4 feet high, without any openings greater than 8 inches in width; except that for industrial and Group E buildings, triple guard rails equally spaced, with top rail not less than 3 1/2 feet high may be used. Such balconies or vestibules shall adjoin either a street or a court not less than 10 feet wide nor less than 150 square feet in area, and the permissible doors and windows in the enclosing walls shall open on such street or court. The balconies or vestibules shall be level with the floors of the building and the stair landings of the Fire Tower. The clear width of such connecting balconies and vestibules shall be not less than that required for Exit Hallways. Self-closing fire doors, swinging in the direction of travel from the building to the Fire Tower, shall be provided at both building and Fire Tower ends of such balcony or vestibules.

SECTION 406. HORIZONTAL EXITS

406-1. Composition

Horizontal Exits shall consist of vestibules, open air balconies, bridges, or doorways through or around Fire Walls or Fire Partitions, connecting two floor areas. In buildings of other than Fireproof or Semi-fireproof construction, such Fire Partitions shall be continuous throughout all stories from the foundation to the roof.

406-2. Connecting Floor Areas

- (a) When a Horizontal Exit is required as an Exitway from the floor area on both sides of the Horizontal Exit, the floor area on either side shall be sufficient to hold the occupants of both floor areas.
- (b) When a Horizontal Exit is required as an Exitway from only the floor area on one side of the Horizontal Exit, there is no requirement as to the floor area on that side; but the floor area on the other side of the Horizontal Exit shall be

sufficient to hold the occupants of both floor areas.

- (c) In determining the required floor area there shall be allowed not less than three square feet of clear floor space per person.

406-3. Arrangement

Where a Horizontal Exit is used there shall be at least one Exitway conforming to the requirements of this Article on each side of the Horizontal Exit. The capacity of such Exitway shall be adequate for the number of persons normally using the space on that side of the Horizontal Exit, less the capacity of the Horizontal Exit itself. In determining the number of such Exitways as required by the distance rule of Section 403, the Horizontal Exit may be treated as if it were also an Exitway.

406-4. Vestibules and Balconies

When vestibules or open air balconies are used, they shall conform to the requirements for vestibules or open air balconies of Fire Towers.

406-5. Bridges

When bridges are used they shall be constructed of incombustible material. The clear width of such bridges shall be not less than required for Exit Hallways.

406-6. Openings

All doorways or windows opening on, under or within 10 feet of such vestibules, balconies, or bridges shall be equipped with self-closing fire doors or approved fire windows.

406-7. Gradients

Where there is a difference in level between the connecting floor areas, gradients of not more than 1 foot in 8 feet shall be provided. No stairs or steps shall be used in a Horizontal Exit.

SECTION 407. EXTERIOR EXIT STAIRWAYS**407-1. General**

- (a) Except for industrial buildings having not more than forty persons above the third story, for Group E buildings, and for sprinklered buildings of any occupancy, permission shall be obtained from the fire official having jurisdiction for the erection of an Exterior Exit Stairway to be used as an Exit Facility serving any story above the third story.
- (b) Exterior Exit Stairways shall be constructed of incombustible materials except on buildings of Frame construction, and on buildings of Ordinary construction not over 3 stories in height. Exterior Exit Stairways shall conform to the requirements for Interior Exit Stairways in Section 404, except that enclosures shall not be required and risers may be open for a height of one inch or less at the bottom.

407-2. Access

Occupants of each story served by an Exterior Exit Stairway shall have direct access to the stairway through an Exit Doorway.

407-3. Openings Protected

Except where wooden stairways are permitted, all doors and windows opening on or within 10 feet of Exterior Exit Stairways shall be protected by approved self-closing fire doors or approved fire windows.

407-4. Guards

Metal mesh or other rigid guards at least 4 feet high without any openings greater than 8 inches in width shall be provided throughout on each unenclosed side of Exterior Exit Stairways; except that for industrial and Group E buildings, triple guard rails equally spaced, with top rail not less than 3 1/2 feet high may be used.

407-5. Enclosures

If Exterior Exit Stairways other than wooden stairways are enclosed on any side such enclosure shall be of incombustible materials.

407-6. Glass

Glass used in the construction of enclosures shall be wired glass of approved type.

407-7. Strength

Exterior Exit Stairways shall be of sufficient strength to sustain a live load of 100 pounds per square foot or concentrated loads of 300 pounds spaced 3 feet center to center, each occupying an area at least one foot wide by the depth of the tread, whichever will produce the greater stress.

407-8. Details

Except for industrial and Group E buildings, all balcony floors and treads and risers of Exterior Exit Stairways shall be solid except that perforations not exceeding 1/2-inch in diameter may be used for purposes of drainage. Exterior Exit Stairways shall be built permanently to the ground.

SECTION 408. EXIT RAMPS**408-1. How Constructed**

Exit Ramps shall be constructed, arranged and enclosed as required for the Interior or Exterior Exit Stairways displaced. Exit Ramps shall have a slope not to exceed 1 foot in 8 feet, except as otherwise provided in Article 7, and shall be provided with nonslip surfaces.

SECTION 409. SLIDE TYPE FIRE ESCAPES

409-1. How Constructed

Slide Type Fire Escapes shall be of approved type and conform to the following:

- (1) They shall not be used to provide means of egress from buildings exceeding 70 feet or 6 stories in height. The pitch and design shall be such that a person using the chute will be discharged without injury. Doors at the entrance to the chute shall have approved panic releases and shall swing with the exit travel and be so installed that they will not obstruct the use of the chute. If doors are installed at the lower end of the chute, they shall be equipped with an approved releasing device on the inside.
- (2) All sheet metal used for the chute shall be corrosion resistant, shall not be painted on the inside and shall be maintained so as to be free from rust. Any part of the chute with which the user may come in contact shall be free from cracks, crevices, or any projection or roughness which may cause injury or reduce the effectiveness of the chute.
- (3) All chutes shall be of sufficient size and ample strength and shall be supported in a substantial manner.
- (4) They shall be arranged and enclosed as required for the Interior or Exterior Stairways displaced.

SECTION 410. EXIT HALLWAYS**410-1. How Constructed**

- (a) The clear width of every hallway or corridor used as an Exit Hallway shall be not less than the sum of the width of the Exit Facilities discharging into it and not less than the nominal required width of the Exit Doorways discharging from it in the direction of normal exit travel, but in no case shall it be less than 44 inches; provided that in multifamily

houses and in case less than 40 persons are to be accommodated, the latter requirement may be reduced to 36 inches.

- (b) The enclosing walls, floors and ceilings of Exit Hallways connecting an Exit Stairway to the doorway leading to the outside shall have a fire resistance rating of not less than that required for the Exit Stairway which they serve; except that in sprinklered buildings of Fireproof or Semi-fireproof construction the enclosing walls may have panels of wired glass in metal frames. Openings therein shall be protected in the same manner as those in the Exit Stairways served thereby.

SECTION 411. EXIT DOORWAYS

411-1. Width

The aggregate nominal width of doorways serving as Exit Facilities shall be at the rate of one unit of exit width (22 inches) per 100 persons served, but in no case shall any Exit Doorway have a net clear width of less than 28 inches. The net clear width of Exit Doorways shall have the relation to nominal width and to units of exit width as shown in the table below:

Required Nominal Doorway Width	Minimum Permissible Net Clear Doorway Width	No. Units of Exit Width Allowed
22"	28"	1
36"	34"	1 1/2
44"	40"	2
56"	52"	2 1/2
65"	60"	3
88"	two 40"	4

(Note: Any desired combination of the above clear door widths may be used provided the corresponding allowable number of units is also sufficient. For example: Two 34-inch doors could be used in an Exit Doorway for 300 persons

since 3 units would be required and each 34-inch door would give 1 1/2 units.)

411-2. Hanging of Doors

- (a) The doors of Exit Doorways shall be so hung and arranged that when fully opened they will not in any way diminish or obstruct the required width of hallway, stair, or other Exit Facility.
- (b) Exit Doorways serving in an Exitway for more than 50 persons shall have the doors, including the doors of vestibules, so hung as to swing open in the direction of exit travel; but this requirement shall not be constructed to prohibit the use of sliding doors in stables, garages, or shipping and receiving rooms of Group D buildings and Group E buildings.
- (c) All exit doors of rooms occupied by 50 or more persons shall be hung to swing open in the direction of exit travel.
- (d) No Exit Doorway shall open immediately on a flight of stairs, but a landing the length and width of which are not less than the width of the Exit Doorway shall be provided between the Exit Doorway and such stairs.

411-3. Revolving Doors

- (a) Revolving doors, to be acceptable as Exit Doorways, shall have a width equal to that required for an acceptable swinging door, the width in the case of such a door with rigid braces being the width of a single wing, and in the case of such a door in which the wings may be readily released from one another by pressure so they may swing independently being the aggregate clear width of the two openings on each side of the central shaft. All revolving doors in Exitways from Places of Assembly shall be of an approved type which will collapse under pressure, and only the width of one wing shall be considered in figuring exit capacity.
- (b) Revolving doors shall not be used as Exit Doorways in theatres or Group B buildings nor in buildings occupied as stores where more than 75 persons are likely to be con-

gregated, unless there are also Exit Doorways of the swinging type, having an aggregate width of at least 50 percent of required width of Exit Doorways and there is at least one swinging door adjacent to each revolving door. Revolving doors shall not be used in Exitways from school buildings.

(c) Revolving doors shall not be used in Exitways from Places of Assembly except under one or more of the following conditions:

- (1) Where the Place of Assembly is in a building of Fireproof or Semi-fireproof construction.
- (2) Where the Place of Assembly and the remainder of the building are protected by an approved automatic sprinkler system.
- (3) Where the Place of Assembly has a capacity of not over 200 persons and has an Exit Doorway of the swinging type adjacent to each revolving door.
- (4) Where a place of refuge is provided for all occupants of the Place of Assembly in portions of the building between the Exit Doorways of the Place of Assembly and the revolving doors, and there is an Exit Doorway of the swinging type adjacent to each revolving door. Such place of refuge may consist of hallways, stairways, or areas separated from the Place of Assembly by Fire Walls or Fire Partitions.

(d) Revolving doors shall be used in Exitways only at points in the first story above grade.

411-4. Panic Hardware

When fastening devices are installed on the Exit Doors of buildings or spaces in the classifications listed below, they shall be latches (fire exit bolts) which release when pressure of not to exceed 15 pounds is applied to the releasing devices in the direction of exit travel. Such releasing devices may be bars or panels extending not less than two-thirds of the width of the door and placed at heights suitable for the

service required usually not less than 30, nor more than 44 inches above the floor.

Schools having more than 4 classrooms.

Theatres of any capacity.

Places of Assembly having a capacity in excess of 500 persons, except Churches.

Places of Assembly in school buildings having a capacity in excess of 200 persons.

411-5. Other Door Hardware

- (a) Fastenings on doors serving Exit Doorways shall be such that the doors may be readily opened from the inside without the use of keys during the time when the building is occupied. Latches or other releasing devices to open doors shall be of simple types, the method of operation of which is obvious even in darkness.
- (b) Paragraph (a), above, shall not apply to the doors of rooms or spaces where persons are under legal restraint, but adequate arrangement shall be made to assure prompt evacuation of the occupants in case of fire.

SECTION 412. MAINTENANCE, MARKING AND LIGHTING

412-1. Physical Condition

Exitways shall at all times be maintained in good, safe, usable condition, and shall at all times be kept free and clear of obstructions and shall be readily accessible.

412-2. Exit Signs

- (a) In rooms and stories accommodating more than 100 persons, Exit Doorways shall be plainly marked by approved exit signs, sufficiently illuminated when the floor area is occupied to be readily distinguished.

- (b) Enclosed interior stairways and exterior stairways, which are provided in or for a building in addition to the required stairways and which do not conform to the provisions of this Article for required stairways, shall be marked in a suitable manner to indicate that they are not approved exits, but may be marked to indicate the extent to which they can be used as means of egress.
- (c) When the Exitways are not visible from all locations in public corridors directional signs shall be placed on walls or otherwise displayed in conspicuous locations to direct occupants thereto.

412-3. Lighting

- (a) Required Exitways, including exterior open spaces to which they lead which give safe access to a street, shall be kept adequately lighted at all times that the building served thereby is occupied.
- (b) Electrical lighting shall be provided wherever natural lighting is inadequate.
- (c) Adequate lighting shall be provided in Places of Assembly during occupancy, except during a performance requiring dimming or darkness. During the showing of motion pictures, where it is the practice for patrons to proceed to and from seats at any time, such light intensity shall not be less than 1/20 of a foot candle at every point thirty inches above the floor.
- (d) Required lights that are likely to be or become dangerous in any way to occupants shall be protected by suitable wire netting or other efficient means against breakage and other hazards.
- (e) In Group A buildings and Group B buildings the artificial lighting required by this Section shall be by electricity so arranged and supplied that the interruption of service on any other circuit inside the building will not result in inter-

ruption of the required lighting.

(Note: This does not necessarily require a second source of electrical energy for the building.)

412-4. Occupancy Prohibited

No part of an Exitway shall be used for any purpose which will interfere with its value as an Exitway.

412-5. Radiators

No coil or radiator or steam riser shall be placed in an Exit Stairway, nor in an aisle of a floor area in which seating accommodation is provided, unless the same be placed in a recess formed in or by walls or partitions.

ARTICLE 5

FIRE SAFETY FEATURES OF CONSTRUCTION

SECTION 500. MASONRY WALLS

500-1. General

Required masonry walls which are not otherwise regulated by this Article shall meet generally recognized minimum standards of safety. Such walls when conforming to the requirements of the current edition of any of the standards or codes listed below shall be accepted.

- (a) National Building Code recommended by American Insurance Association.
- (b) BOCA Basic Building Code recommended by Building Officials and Code Administrators International.
- (c) Southern Building Code recommended by Southern Building Code Congress.

- (d) Uniform Building Code recommended by International Conference of Building Officials.

SECTION 501. FIRE WALLS

501-1. Application

Fire Walls for which credit is claimed under any provision of these Regulations shall conform to the requirements of this Section.

501-2. Construction

Fire Walls shall be of approved masonry or reinforced concrete.

501-3. Fire Resistance

Fire Walls for any combination of occupancy and construction shall have a fire resistance rating adequate to restrict the spread of fire from one side to the other, and shall have a fire resistance rating of at least 4 hours.

(Note: See definition of "Fire Division".)

501-4. Termination at Top

- (a) The Fire Wall shall extend at least three feet above the roof of the building which it is to protect except where the roof is of Fireproof or Semi-fireproof construction; in which case the Fire Wall shall be carried up tightly against the underside of the roof slab.
- (b) Exception. In apartment houses and multifamily houses having not more than 4 apartments per story the Fire Walls that are required to extend above the roof by paragraph (a) above may be terminated not less than 6 inches above the roof provided all roof sheathing, trusses, rafters, joists and other roof supporting construction within 4 feet of the center

line of the Fire Wall, on each side of the Fire Wall, are of noncombustible materials, or are of combustible materials that have been treated by pressure impregnation so as to reduce the flamespread and fuel contribution ratings of the materials to not more than 25 as classified in accordance with the Method of test of Surface Burning Characteristics of Building Materials, American Society for Testing and Materials No. E-84.

501-5. Openings

- (a) Except in sprinklered buildings, no opening in a Fire Wall shall exceed 120 square feet in area, with no dimension greater than 12 feet, and the aggregate width of all openings at any level shall not exceed 25 percent of the length of the wall.
- (b) Every opening in a required Fire Wall shall be protected on each side of the wall with an automatic fire door, approved for such opening, except that when an opening in a Fire Wall serves as a Horizontal Exit, one of the fire doors at each such opening may be replaced by a fire door approved for openings in Fire Partitions. Steel plate security doors may be substituted for approved Fire Doors in applications involving the protection of buildings used or occupied by persons under legal restraint.

(Note: The term, "persons under legal restraint" applies only to persons who are of sound mind and are not bed-ridden.)

SECTION 502. FIRE PARTITIONS

502-1. Construction

- (a) Fire Partitions shall have a fire resistance rating of at least two hours. They shall be constructed of approved masonry or reinforced concrete, or other approved form of construction of incombustible materials.
- (b) Fire Partitions shall be supported in each story on construction having a fire resistance rating of not less than two

hours; provided that when they also are load bearing the supporting construction shall have a fire resistance rating of not less than three hours in case the building is of Fireproof construction.

- (c) The maximum unsupported height of a Fire Partition shall not exceed thirty times its total thickness unless suitably reinforced and anchored at floor and ceiling, or unless substantially secured to vertical supports at intervals of not over thirty times the thickness.
- (d) Fire Partitions shall be deemed continuous, even though the several parts are not directly over one another in successive stories, if the intervening parts of the floors at the levels where offsets occur are unpierced and of Fireproof construction or Semifireproof construction and all parts not supported directly on the foundations are carried on Fireproof construction.
- (e) In buildings of Heavy Timber construction or of Ordinary construction, Fire Partitions, if required in a story as a Horizontal Exit, shall be continuous through all stories from the foundation to the roof. This shall not preclude offsetting of partitions if constructed in accordance with Paragraph 502-1(d), above.
- (f) Chases or recesses that would reduce the thickness below the required minimum shall not be built nor cut in Fire Partitions.

502-2. Openings

- (a) Fire Partitions shall have no openings other than required door openings, or properly protected duct openings.
- (b) Openings in required Fire Partitions shall be equipped with approved automatic-closing or self-closing fire doors. A door listed in the current edition of the Underwriters Laboratories, Inc., "List of Inspected Fire Protection Equipment and Materials" as being approved for Class B situations shall be deemed satisfactory.

- (c) Each opening in a Fire Partition serving as an enclosure to an Exitway or as a Horizontal Exit shall be equipped with a door of the self-closing type, except as provided in Paragraph 404-2(e).

SECTION 503. 3/4-HOUR FIRE RESISTING PARTITIONS

503-1. Construction

- (a) 3/4 hour Fire Resisting Partitions shall have a fire resistance rating of at least 3/4 hour. They shall be of approved form of construction.
- (b) Such partitions may be load-bearing only where the construction is approved for that purpose.
- (c) Such partitions shall be well secured.

503-2. Openings

- (a) Required 3/4-hour Fire Resisting Partitions shall have no openings other than required door openings, or properly protected duct openings.
- (b) Openings in required 3/4 hour Fire Resisting Partitions shall be equipped with substantial metal or metal covered doors or solid wooden doors of the flush type of nominal thickness not less than 1 3/4 inches. Doors shall be self-closing except as provided in Paragraph 404-2(e).

SECTION 504.0 FIRE RETARDANT CEILINGS

504-1. Construction

- (a) Fire Retardant Ceilings shall be constructed in accordance with one of the following specifications:
 - (1) Any ceiling assembly described as a "fire retardant ceiling" in a nationally promulgated standard in effect at or after the time of building construction.

- (2) Not less than 1/2 inch plaster consisting of one part gypsum to not over two parts sand on 3/8 inch perforated gypsum lath, attached to wood supports by nails not smaller than 1 1/8 inches long with 3/8 inch diameter heads, and with three-inch strips of expanded metal lath nailed over all joints in the gypsum lath with nails not smaller than 1 3/4 inches long with 1/2 inch heads.
- (3) Any combination floor and ceiling construction having a fire resistance rating of 3/4 hour or more.

SECTION 505. MISCELLANEOUS REQUIREMENTS

505-1. Wood Construction Around Fireplaces, Flues and Chimneys

- (a) All wooden beams and joists shall be trimmed away from flues and chimneys. Headers, beams and joists shall be not less than two inches from the outside face of a chimney or from masonry enclosing a flue. Headers supporting trimmer arches or fireplaces shall be not less than six inches from the inside face of the nearest flue.
- (b) No woodwork shall be placed within four inches of the back face of a fireplace; nor shall combustible lathing, furring or studding be placed against a chimney; but this shall not prevent plastering directly on the masonry or on metal lath and furring.
- (c) No wooden mantel or other woodwork shall be hereafter placed within eight inches of either side nor within twelve inches of the top of a fireplace opening.
- (d) All spaces between the masonry or chimneys or flues and wooden joists, beams or headers shall be firestopped by filling with incombustible materials.
- (e) All spaces back of combustible mantels shall be filled with incombustible materials.

505-2. Partitions in Multifamily Houses

In every building occupied as a multifamily house, unless sprinklered, partitions separating apartments, or apartments from public hallways, or apartments from other occupancies shall be 3/4-hour Fire Resisting Partitions.

505-3. Transoms

In buildings containing sleeping quarters, transoms or similar openings shall not be installed in walls or partitions separating public hallways from apartments and sleeping rooms.

505-4. Floors in Multifamily Houses

In every building occupied as a multifamily house, the floor construction immediately above those parts of the building occupied for business purposes shall have a fire resistance rating of not less than 3/4 hour, unless such parts are sprinklered.

505-5. Cellar Ceilings

In buildings of Ordinary construction or Frame construction, except one-story buildings, the ceilings over cellars shall conform to the requirements for Fire Retardant Ceilings.

505-6. Wall and Ceiling Finish

In Group A buildings and Group B buildings, and in all Places of Assembly and Exitways therefrom, no combustible materials shall be used as interior wall or ceiling finish which is of such a nature that flame will spread over its surface more rapidly than over one-inch (nominal) wood boards covered with ordinary paint or varnish.

505-7. Boiler, Fuel and Janitor's Work Rooms in School Buildings

Walls and ceilings of rooms in school buildings containing heating plants, including fuel storage rooms and janitor's work rooms, if they are located adjoining or under pupil occupied spaces, shall have a fire resistance rating of not less

than two hours. All doors connecting such rooms with other parts of the building shall be protected with approved selfclosing fire doors. The room containing the heating plant shall have an outside entrance.

(Note: A door listed in the current edition of the Underwriters' Laboratories, Inc. List of Fire Protection Equipment and Materials as being approved for Class B situations shall be deemed satisfactory.)

SECTION 506. FIRESTOPPING

506-1. General

Firestopping shall be provided in buildings or Ordinary and Frame construction to cut off all concealed draft openings and form effectual fire barriers. Such firestopping shall be of wood two inches in nominal thickness, or of approved incombustible materials.

506-2. Furred Walls

When the walls are furred, the furred space shall be firestopped at floors, ceilings and roofs.

506-3. Partitions

- (a) Interior stud partitions shall be firestopped at the floors and ceilings of each story by a two-inch, nominal dimension, plate, the width of the stud, or the equivalent.
- (b) When sliding doors are pocketed in partitions, such pockets shall be completely firestopped at the top, bottom and ends.

506-4. Exterior Walls

Exterior walls of frame construction shall be properly firestopped at each floor level, at the top story ceiling level, at the roof level in the case of flat roofs, and at the foot of roof rafters in the case of sloping roofs.

506-5. Wainscoting and Paneling

Combustible wainscoting or paneling attached to plastered walls and partitions shall be firestopped at floor and ceiling, or at top and bottom.

506-6. Pipes, Shafting, Belts, Conveyors and Ducts

- (a) All openings around conduits, pipes or ducts shall be filled with approved incombustible material or shall be closed off by close fitting incombustible material at the ceiling and floor or line on each side of the wall.
- (b) All openings for belts, chutes and conveyors shall be provided with approved slotted doors, or be otherwise suitably protected.

SECTION 507.**PROTECTION OF OPENINGS IN EXTERIOR WALLS****507-1. Buildings Affected**

- (a) Openings in exterior walls of buildings listed below shall be protected as required by this Section:
 - (1) Buildings over 70 feet in height to the floor of the highest story, or
 - (2) Buildings over one story in height whose occupants are bedridden, or under legal restraint, or who, because of age or mental or physical infirmities, would ordinarily be unable to make quick exit in case of emergency, or
 - (3) Portions of buildings used as Places of Assembly.
- (b) Exceptions: Churches, Group E buildings and buildings of Frame and Unprotected Metal construction are exempt from the requirements of this section.

507-2. Openings Affected

(a) Approved fire windows or other approved protectives shall be installed in openings in exterior walls of buildings required to be protected when:

- (1)** They are less than 30 feet in a direct line from an opening in the wall of a building of Fireproof, Semi-fireproof, Heavy Timber Ordinary or Noncombustible construction.
- (2)** They are less than 30 feet in a direct line from a building of Frame, or Unprotected Metal construction, or
- (3)** They are less than 30 feet distant from a roof of combustible construction or from an opening in a roof of any construction.

(b) Exceptions: Such protection is not required when:

- (1)** The opening in question and the opening against which it is to be protected are in walls in the same plane and are facing in the same direction, or
- (2)** The opening in question is a show window which does not extend above the first full story above grade.

(c) For the purposes of this Section, any space within thirty feet devoted to use as a lumber yard or for the storage of comparable quantities of combustible material shall be considered as an exposing building.

507-3. Fire Shutters

When equipped with fire shutters, at least one in every three openings facing a street in each story shall have such shutters arranged to be readily opened from the outside. Distinguishing marks shall be provided on these shutters.

507-4. Exit Openings

When fire doors or fire shutters are used on openings to

Exitways they shall be so arranged as not to obstruct such Exitways.

507-5. Wired Glass

For the glazing of fire doors, when permitted, or of fire windows, only wired glass shall be used which shall be not less than onequarter inch thick.

507-6. Closing of Protectives

Non-automatic fire doors, fire shutters and fire windows on exterior openings, when not required to be open, shall be kept closed by the occupant or occupants of the building having the use or control of them.

507-7. Installation and Approval

Fire doors, fire windows, fire shutters, window sprinklers and other protectives required by this section shall be of approved types and installed in an approved manner. Devices enumerated in the "Fire Protection Equipment Directory" issued by Underwriters' Laboratories, Inc., as revised from time to time, and listed for the purposes intended, if installed in accordance with the provisions of the Standard of the National Fire Protection Association (N.F.P.A.-80 Standard For Fire Doors and Windows) shall be deemed to be approved within the meaning of this Section.

SECTION 508. PROTECTION OF SHAFTWAYS

508-1. Application

The provisions of this Subsection shall apply to all shaftways hereafter constructed which are used for ventilation, light, elevator, pipes, or other purposes; provided that the provisions of this Subsection shall not apply to shaftways used for stairways, moving stairways, ducts, flues, incinerator chutes and shaftways in Frame buildings and in Group C buildings of Ordinary construction extending from the ceiling of the top story to and above the roof.

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508-2. Protection Required

- (a) All interior shaftways regulated by this Section shall be enclosed in the same manner as required by the provisions of Sub-section 404-2 for interior stairways which are not required as means of egress, except that where there are no openings in the floors other than for the actual passage of pipes, and the space between such pipes and floor construction is sealed with incombustible material in accordance with Section 506-6(a), no enclosure shall be required.

(Note: Hoist-way doors may be considered self-closing when the elevator cab cannot be moved from the opening in question unless the doors are closed.)

- (b) Shaftway enclosures shall have no openings other than those necessary for the purpose of the shaftway; provided that in shaftways for elevators there shall be at least one doorway in every thirty feet of the height of such shaftway. This shall not be construed as prohibiting window openings to the exterior of the building.
- (c) Every shaftway extending through the roof, which is not open to the air at the top, shall be covered at the top with a skylight of at least 10 per cent of the area of the shaft in the top story and glazed with plain glass (preferably not greater than one-eighth inch in thickness); provided that the skylight herein required may be replaced by a window of plain glass, or an automatic vent, of equivalent area in the side of the shaft if the sill of such window or vent is not less than two feet above the roof.
- (d) A shaftway that does not extend through the roof shall have the top enclosed with a form of construction equal to the requirements for the walls of the shaftway in fire resistance rating.
- (e) A shaftway that does not extend to the bottom of the building shall be enclosed at its lowest point with a floor construction of the same type as that required for the lowest floor to or thorough which it passes; provided that, in any

case, it shall have a fire resistance rating of not less than 3/4 hour.

- (f) Not more than three elevators shall be placed in one shaftway enclosure.

SECTION 509. PROTECTION OF DUCTS

509-1. Standard Systems Using Ducts

Ductwork used in air conditioning, warm air heating, air cooling and ventilating systems that conform to generally accepted minimum standards of safety shall be enclosed to the extent specified in such standards when passing between two or more stories; provided that such enclosures need not have a fire resistance rating in excess of 3/4 hour.

(Note: The Standards of the National Fire Protection Association (NFPA No. 90A) for the Installation of Air Conditioning and Ventilating Systems shall be deemed to conform to generally accepted minimum standards of safety.)

509-2. Non-standard Systems Using Ducts

Ductwork connecting two or more stories in air conditioning, warm air heating, air cooling and ventilating systems that do not conform to generally accepted minimum standards of safety shall be enclosed in the same manner and to the same extent as required by the provisions of Subsection 404-2 for interior stairways which are not required as means of egress.

ARTICLE 6

FIRE PROTECTION EQUIPMENT

SECTION 600. GENERAL

600-1. Design and Installation

All fire extinguishing equipment required by these Regulations, or for which credit is claimed under some provision of these Regulations, shall be designed and installed in accordance with good engineering practice. Compliance with the appropriate portions of the following Standards of the National Fire Protection Association shall be deemed prima facie evidence of compliance with this Article, in so far as they apply. Applicable Standards of the National Fire Protection Association, include:

"Sprinkler Systems, Installation"
(NFPA No. 13)

"Standpipe and Hose Systems"
(NFPA No. 14)

"Local Protective, Auxiliary Signaling,

Remote Station, Proprietary Signaling Systems"
(NFPA No. 72)

600-2. Materials

Materials, appliances, fittings and devices here after installed in fire extinguishing equipment required by this Article shall be of approved type and quality. Such materials, appliances, fittings and devices when currently approved by the Underwriter's Laboratories, Inc., and listed for the purposes intended shall be accepted as conforming to the requirements of this Section.

SECTION 601. SPRINKLER EQUIPMENTS**601-1. When Required**

Approved automatic sprinkler equipments shall be installed and maintained as follows:

- (1) Buildings over two stories in height used for the manufacture or sale of combustible goods or merchandise and exceeding in area ten thousand square feet when of Fireproof or Semifireproof construction or seven thousand five hundred square feet when of other types of construction, shall be equipped with approved automatic sprinkler equipments or other approved automatic detection and extinguishing devices, when occupied or used on any one floor by 150 or more persons.
- (2) Basements and other stories with the floor located below grade and having floor areas exceeding five thousand square feet, when used for the manufacture or sale of combustible goods or merchandise, shall be equipped with approved automatic sprinkler equipments or other approved automatic detection and extinguishing devices, when occupied or used by 75 or more persons.
- (3) Buildings and other structures which, because of their location, construction and contained hazards present unusual hazard to life may, on the written order of the Chief Administrative Officer, in those localities enforcing the Statewide Fire Prevention Code; or the Director of the Department of Housing and Community Development in other areas, be required to be equipped with an approved system of automatic detection and extinguishing devices.

Note: This section applies to buildings or structures constructed between April 12, 1949 and September 1, 1973 and in which there has been no change of occupancy or alterations since September 1, 1973.

601-2. Water Supplies

Required sprinkler systems shall have a least one approved automatic water supply of adequate pressure, capacity and reliability.

ARTICLE 7

ADDITIONAL PROVISIONS FOR SPECIAL OCCUPANCIES

SECTION 700. GENERAL

700-1. Purpose

The intent of this Article is to require supplemental or modified safeguards for life from fire in buildings which, due to their occupancy, present hazards not fully regulated by the preceding Articles. The requirements of the proceeding Articles shall apply to all buildings regulated by this Article except as modified by the provisions of this Article.

SECTION 701. PLACES OF ASSEMBLY

701-1. Application

Places of Assembly shall conform to the requirements of this Section.

(Note 1: See Section 703 for Outdoor Places of Assembly.)

(Note 2: See Section 1701 for Existing Places of Assembly.)

701-2. Seating Arrangements

- (a) Except in gymnasiums, restaurants, night clubs, churches and other places of religious assembly, individual seats shall be provided for the persons seated therein.

(Note: See Section 703 for Outdoor Places of Assembly.)

- (b) The width of seat allotted for each person shall be not less than 18 inches.

- (c) Seats in rows, whether fixed or movable, shall, except in boxes or loges not exceeding 60 square feet in area, be not less than 30 inches apart from back to back measured in a horizontal direction.
- (d) When individual fixed seats are provided or required, the maximum number of seats in a row extending from one aisle to another shall be 16 and the maximum number of seats in a row extending from one aisle to a wall shall be 8, except that if the seatings are fixed chairs with self-rising seats so spaced that when the seats are raised there is an unobstructed space of not less than 18 inches horizontal projection between the rows of seats, and doorways leading directly to exit corridors are provided not more than 5 feet apart along the sides of the auditorium, the number of seats in a row shall be limited.
- (e) In Places of Assembly used regularly for theatrical, operatic or similar performances, or for the display of motion pictures, the seats, except in boxes or loges not exceeding 60 square feet in area, shall be fixed and shall not be separated by arms.
- (f) In boxes or loges not exceeding 60 square feet in area, and in other locations where loose chairs are permitted, not more than one chair shall be provided for each 6 square feet of floor space occupied.

701-3. Aisles

- (a) Every aisle shall lead to an exit door, or to a cross aisle; that is, an aisle running parallel with the seat rows and leading to an exit door.
- (b) No point of a cross aisle shall have a clear width of less than 44 inches.
- (c) No point of a longitudinal aisle shall have a clear width of less than 33 inches.
- (d) A longitudinal aisle accommodating more than 180 persons, and leading to exits or cross aisles in one direction only, shall

be widened uniformly in the direction of normal exit travel. The widest portion of the aisle shall be not less than as computed by the formula:

$$W = \frac{22P}{120}$$

Where W equals the required width in inches and P equals the total number of persons to be accommodated by the aisle.

- (e) A longitudinal aisle accommodating more than 180 persons, and leading to exits or cross aisles in both directions shall conform to (d) above, or shall be of constant width. When of constant width, the width shall be not less than as computed by the formula:

$$W = 16.5 + \frac{11P}{120}$$

Where W equals the required width in inches and P equals the total number of persons to be accommodated by the aisle.

- (f) There shall be no steps in any main floor aisle, except at the rear of the main floor in a stadium type theatre. Steps in other aisle shall be the full width of the aisles. Stepped aisles shall not be construed as being stairways.
- (g) The maximum slope in aisles on the main floor shall be one in six for the first, second and third rows of seats from the rear, one in seven for the fourth, fifth and sixth rows, one in eight for the seventh, eighth and ninth and one in ten for all remaining rows.

701-4. Galleries and Balconies

In galleries, balconies or other locations where seatings are arranged on platforms or successive tiers, and the height of the riser from one platform to another below and in front of it exceeds 21 inches, a substantial railing not less than 26 inches high shall be placed at the edge of the platform along the entire row of seats.

701-5. Stage

- (a) **General.** No stage for theatrical or similar performances, including drama, opera, vaudeville and the like, which requires or uses a curtain, portable or fixed scenery, light, mechanical appliances, or any of them shall be placed in a building heretofore or hereafter erected except in conformity with the appropriate provisions of this Subsection.
- (b) **Enclosure Walls.** (1) The stage shall be separated from all other parts of the building by masonry walls having a fire resistance rating of not less than 2 hours and with openings protected as required in Paragraphs (c), (f) and (g) below; except that in motion picture theatres, school auditoriums, clubs and similar Places of Assembly where the stage or platform is without provisions for the vertical shifting of scenery, separation between the stage and the auditorium shall not be required. Required separating walls shall extend from the foundation to at least 4 feet above roof, except where the roof is of Fireproof or Semi-fireproof construction, in which case the walls shall be carried up tightly against the underside of the roof slab.
- (2) There shall be no window opening in the enclosure walls of such a stage within 5 feet of a lot line other than a street line.
- (c) **Proscenium Wall Openings.** Each opening other than the proscenium opening in the wall which separates the stage from the auditorium shall be protected by an approved self-closing fire door of a type approved for use in Fire Partitions.

(Note: The use of a door listed in the current List of Fire Protection Equipment, Underwriters' Laboratories, Inc. as satisfactory for protection of openings in Class B situations, properly installed, will be acceptable.)

(d) **Appurtenant Rooms**

- (1) Dressing rooms, scene docks, property rooms, and other rooms or compartments appurtenant to the stage shall be separated from the auditorium and stage by Fire

Partitions if these spaces are greater than 150 square feet in total area.

- (2) In no case shall openings, other than the necessary doorways at the stage level, connect such rooms with the rest of the stage.
- (e) **Stage and Dressing Room Exits.** The stage and dressing rooms shall be provided with one or more exit doors independent of the auditorium exit doors. Stage and dressing rooms or stage and auditorium may use the same exit passage, but the stage shall not be used as a part of the exitway from the dressing rooms nor the dressing rooms used as a part of the exitway from the stage. Except in school buildings, the stage may be used as part of the exitway from dressing rooms not exceeding 150 square feet in area.
- (f) **Curtain.** The proscenium opening in the required separating partition between stage and auditorium shall be provided with an approved curtain for the protection of the opening in case of fire on the stage. When the proscenium opening is less than 60 feet in width, a curtain conforming to Chapter 41 of the 1949 Edition of the Uniform Building Code adopted by the Pacific Coast Building Officials Conference shall be deemed approved. For proscenium openings 60 feet in width or more, a curtain conforming to the requirements of Section 1201 of the 1949 Edition of the National Building Code recommended by the American Insurance Association shall be deemed approved. Curtains not conforming to the above standards shall be submitted to the fire authority having jurisdiction for approval prior to installation.

(Note: See Appendix A for Uniform Building Code curtain requirements. See Appendix B for National Building Code curtain requirements).

- (g) **Ventilators.** 1) Over a stage requiring separation from the auditorium there shall be provided one or more smoke ventilators in addition to any air change, ventilating, or air conditioning system. The smoke ventilators shall be of metal or other incombustible material, equipped with movable shutters or sash, having an aggregate clear area of not less

than 1/8 the area of the stage, constructed to open automatically and instantly in case of fire by approved heat-actuated devices. Suitable means for manual operation shall be provided in addition.

- (2) If glass is used in the construction, only wired glass shall be used in such parts where the breaking of glass would cause it to fall on the stage.
 - (3) Any air change, ventilating or air conditioning system serving the auditorium shall be independent of any such system serving the stage area of stages requiring separation from the auditorium. The system shall be provided with a smoke or fire detecting system arranged to stop the operation of the air systems automatically in case of fire, except that this does not apply to systems used solely for exhausting air to the outside.
- (h) Lights. (1) The troughs or frames for footlights and border lights shall be of incombustible materials.
- (2) The suspension lines of border lights shall be on wire for at least 10 feet from the frames.
- (i) Location of Electrical Switchboard. The switchboard for the electrical equipment of the stage shall be so located that it will be accessible at all times, and will be protected from falling objects and from the storage or placing of stage equipment against it.

701-6. Extinguishing Equipment

- (a) Stages required to be separated from the auditorium shall be sprinklered under the roof of the stage, under the gridiron, the rigging loft and fly and tie galleries, under the stage, in dressing rooms, scene docks, workshops and storage rooms.
- (b) On stages required to be separated from the auditorium one approved 2 1/2-inch standpipe outlet shall be provided on each side of the stage. Each outlet shall be equipped with approved 1 1/2- inch hose and nozzle, the quantity of hose

being sufficient to allow a stream to reach any portion of the stage section and in no case less than fifty feet.

- (c) One approved hand fire extinguisher suitable for extinguishing fires in ordinary materials shall be located on the stage at each side of the proscenium opening; a similar device shall be located accessible to but outside the projection booth.

701-7. Places of Assembly Combined with Other Occupancies

No Place of Assembly having a stage as described in Paragraph 701-5(a), above, or which is used for the projection of motion pictures from nitrocellulose film, shall be located within or attached to a building of other than Group A occupancy unless:

- (1) It is separated from such occupancy by wall, ceiling and floor construction having a fire resistance rating of not less than two hours, or,
- (2) Such other occupancy is equipped with an approved automatic sprinkler system.

701-8. Flameproofing Requirements

- (a) Use of combustible material for decorative purposes shall be kept to a minimum in Places of Assembly, and all such material, including curtains, draperies, artificial trees or other decorative material, but not including floors, walls or ceilings, shall be rendered flameproof. Such flameproofing shall be tested at intervals of not more than 6 months, and shall be renewed when found necessary.

(Note: See Subsection 505-6 for wall and ceiling requirements.)

- (b) On a stage requiring separation from the auditorium all scenery, drapes and sets used on the stage shall be coated or treated to render them flameproof.

SECTION 702. MOTION PICTURE PROJECTION**702-1. Application**

In any building where motion pictures are projected from nitrocellulose film, the projection equipment and the storage and handling of such film shall conform to the requirements of this Section.

702-2. Projection Booths and Equipment

- (a) Motion picture projectors using nitrocellulose film shall be operated or set up for operation only within an approved enclosure, not less than 8 feet wide, 10 feet deep and 8 feet high for one projection machine, and not less than 14 feet wide, 10 feet deep and 8 feet high for 2 machines.
- (b) The walls and ceilings of the enclosure shall be of a form of construction having a fire resistance rating of not less than one hour. Only incombustible materials shall be used in the construction of the enclosure walls. All joints shall be sufficiently tight to prevent the discharge of smoke.
- (c) The enclosure shall have at least two exit doors, each not less than 30 inches wide and 6 feet high, protected by approved self-closing fire doors.
- (d) Two openings for each motion picture projector shall be provided; one for the projectionist's view (observation port) shall be not larger than 200 square inches, and the other through which the picture is projected (projection port) shall be not larger than 120 square inches. Where separate stereoptican, spot or flood light machines are installed in the same enclosure with picture machines, not more than one opening for each such machine shall be provided for both the operator's view and for the projection of the light, but two or more machines may be operated through the same opening; such openings shall be as small as practicable and shall be capable of being protected by approved automatic shutters.
- (e) Each opening shall be provided with an approved gravity

shutter set into guides not less than one inch at sides and bottom, and overlapping the top of the opening by not less than one inch when closed. Shutters shall be of not less than 10-gauge iron or its equivalent, or of 1/4-inch hard asbestos board. Guides shall be of not less than 10-gauge iron or its equivalent. Each shutter shall have a fusible link above it, and there shall also be one located over each upper projector magazine which, upon operating, will close all the shutters. There shall also be provided suitable means for manually closing all shutters simultaneously from a point within the projection room near each exit door. Shutters on openings not in use shall be kept closed.

- (f) All shelves, furniture and fixtures within the enclosure shall be constructed of incombustible material.
- (g) Projection machines shall be adequately supported and secured against overturning.

702-3. Ventilation

- (a) Ventilation shall be provided by one or more mechanical exhaust systems which shall draw air from each arc lamp housing and from one or more points near the ceiling. Systems shall exhaust to the outdoors either directly or through an incombustible flue used for no other purpose. Exhaust capacity shall be not less than 15 cubic feet nor more than 50 cubic feet per minute for each arc lamp plus 200 cubic feet per minute for the room itself. Systems shall be controlled from within the enclosure and have pilot lights to indicate operation. The exhaust system serving the projection room may be extended to cover rooms associated therewith, such as rewind rooms, but ventilation of these rooms shall not be connected in any way with ventilation or air conditioning systems serving other portions of the building.
- (b) Exhaust ducts shall be of incombustible material and shall either be kept one inch from combustible material or covered with 1/2 inch of incombustible heat insulating material.
- (c) Fresh air intakes other than those direct to the open air shall

be protected by approved fire shutters arranged to operate automatically with the port shutters.

SECTION 703. OUTDOOR PLACES OF ASSEMBLY

703-1. Flameproofing of Tents

- (a) All tents occupied for public assembly shall be effectively flameproofed. In addition, combustible material for decorative purposes in all tents used as Places of Assembly shall conform to Paragraph 701-8(a), above.
- (b) Any official authorized to enforce these Regulations may require field tests of the required flameproofing, or he may accept the report of tests made by other administrative officials or by a recognized testing laboratory.

703-2. Other Outdoor Places of Assembly

Otherwise than in Paragraph 703-1, above, Outdoor Places of Assembly such as grandstands, stadiums, reviewing stands, etc. are not covered by these Regulations.

SECTION 704. GARAGES

704-1. Application

The provisions of this Section apply to buildings occupied as garages.

704-2. Garages Combined with Other Occupancies

- (a) Except as permitted in paragraph (b) below, and for fire stations, no garage shall be located in or attached to a Group A, Group B, Group C or Group D building of other than industrial occupancy unless:
 - (1) The garage is separated from such other occupancies by Fire Partitions and by floors and ceilings of Fireproof or Semifireproof construction, or

(2) The garage area is equipped with an approved automatic sprinkler system.

(b) A garage not exceeding 3,000 square feet in area and used only for storage of passenger automobiles or trucks of one ton or less capacity may be located in or attached to a Group A, Group B, Group C, or Group D building of other than industrial occupancy when:

(1) The garage area is separated from such occupancy by wall, floor and ceiling construction of at least 3/4-hour fire resistance with all connecting openings protected by approved self-closing fire doors as specified for 3/4-hour Fire Resisting Partitions, or

(2) The garage area is equipped with an approved automatic sprinkler system.

704-3. Ventilation

All garages having one or more floors below grade shall have such stories continuously ventilated by a mechanical ventilating system with positive means for both the inlet and exhaust of at least one cubic foot of air per minute per square foot of floor area. Controls for the exhaust and inlet fans shall be close to the entrance door. The ventilating equipment may be combined with the heating system, provided that no air shall be recirculated.

704-4. Miscellaneous

Ramps connecting floors of garages need not be enclosed and protected in the various stories if the garage is protected with automatic sprinklers or if ramps are around an open air shaft extending through the roof, or if fifty percent of the wall area of two sides of the garage is open to the air at each story above the first floor or above the basement floor if a basement is provided. Suitable egress provisions shall be provided for persons from each floor.

ARTICLE II - ADMINISTRATION

SECTION 1100. SCOPE

DELETED - SEE PART A

ARTICLE 12

DEFINITIONS

**SECTION 1200. DEFINITIONS
SEE PART A**

ARTICLE 13

CLASSIFICATION AND RESTRICTIONS

**SECTION 1300. CLASSIFICATION OF OCCUPANCIES
SEE PART A**

ARTICLE 14

MEANS OF EGRESS

SECTION 1400. GENERAL

1400-1. Application of Article

Every building constructed prior to April 12, 1949, and in which there has been no change in occupancy since that date shall be provided with means of egress adequate for the safety of the occupants. Such means of egress shall not provide less safety to the occupants than that obtained by compliance with the provisions of this Section.

1400-2. Meaning of Terms

Terms uses in this Article shall have the same meanings as used in Article 4 unless clearly indicated otherwise.

SECTION 1401. ARRANGEMENT**1401-1. Discharge of Stairways**

- (a) Exitways may discharge into the first story provided at least one Exitway in buildings over 4,000 square feet in area, and in buildings required to have more than one Exitway, shall discharge directly to the outside; and further provided that Exitways from Places of Assembly of which any part is located below grade shall also discharge directly to the outside. These requirements shall not apply to sprinklered buildings or to buildings of Fireproof or Semi-fireproof construction.
- (b) Exitways required to discharge directly to the outside may discharge into lobbies, foyers and similar spaces which connect directly to the outside when such spaces are of a size and character which do not constitute a serious life hazard in case of fire and when:
 - (1) They are constructed as Exit Hallways, or
 - (2) The adjoining rooms are sprinklered, or
 - (3) The adjoining rooms are cut off by 3/4 hour Fire Resisting Partitions.

SECTION 1402. NUMBER OF EXITWAYS**1402-1. From Stories**

Every story shall have at least one Exitway and every story in which the number of occupants would require for new buildings more than 44 inches of exit width shall have at least two separate Exitways, except that in any building of

Fireproof or Semi-Fireproof construction and in any building of other construction not over two stories in height, and in any sprinklered building, a single Exitway may be used provided it and the other floor openings are protected with enclosures having a fire resistance rating of not less than 3/4 hour, with all openings therein protected as specified for such enclosure in section 1404.4, and the distance to the Exitway conforms with the provisions of Section 1403-1.

1402-2. From Places of Assembly

- (a) Every room used as a Place of Assembly shall have at least two Exit Doorways.
- (b) Every Place of Assembly having a capacity greater than 200 persons shall have Exitways conforming as to number and width with paragraph 402-2(b) and Subsection 404-4. In applying Subsection 404-4, a stairway 40 inches wide may be accepted as two units.

1402-3. Residence Occupancy Located Above a Business Occupancy

Residence occupancies located above a business occupancy shall be provided with an Exitway in addition to any extending through the business area.

1402-4. School Buildings and Group B Buildings

Group B occupancies and school buildings shall be provided with at least two Exitways, except that neither this requirement nor any other requirements for multiple Exits shall apply to buildings occupied by persons under legal restraint.

(Note: The term "persons under legal restraint" applies only to persons who are of sound mind and are not bed-ridden.)

SECTION 1403. LOCATION OF EXITWAYS

1403-1. General

The number and location of Exitways shall be such that it will not be necessary to travel more than a distance of 125 feet from the door of any room, or from any point on a floor not divided into rooms, to reach the nearest Exitway, except that in office buildings, and in sprinklered buildings, and in buildings of Fireproof or Semi-fireproof construction, and in buildings equipped with an approved automatic fire alarm system, such travel distance may be increased 50%.

SECTION 1404. INTERIOR EXIT STAIRWAYS

1404-1. Minimum Requirements for Existing Interior Exit Stairways

- (a) The Interior Exit Stairway in one of the Exitways from any story or stories occupied by a total of six or more persons shall have treads not less than 7 inches in width, exclusive of nosing, and risers not higher than 9 1/2 inches nor more than 1.2 times the width of tread. Winder treads shall have a width of not less than 6 inches measured one foot from the narrow end. This paragraph shall not be construed as modifying the pitch and tread requirements for any new Interior Exit Stairway construction in existing buildings.
- (b) All Interior Exit Stairways shall be guarded at the sides by well secured balustrades or other acceptable guards wherever such are needed for the safety of users, and shall have a handrail on at least one side when the stairway exceeds 44 inches in width.

1404-2. Stairways Which Shall Be Protected

All interior stairways, including moving stairways, shall be enclosed in accordance with Section 1404-3 and 4 below, except that stairways as follows shall be exempt from such requirements.

- (1) Stairways not required to be enclosed in new construction.

(Note: See Section 404-2 (d)).

- (2) Stairways in school buildings used for instructional purposes; provided there are at least two Exitways located a reasonably remote distance apart on each floor which accommodates more than 10 persons.
- (3) Stairways in buildings of other than Group B occupancy, having only two stories or two stories and basement or cellar; provided there are at least two Exitways located a reasonably remote distance apart on each floor which accommodates more than 10 persons; and further provided that in Group A and C buildings, any basements or cellars shall be sprinklered or shall be cut off from the upper floors by enclosures at the head or foot of all basement or cellar stairs.
- (4) Stairways in buildings of other than Group B occupancy, not over four stories in height, where the stories above the second are used for storage only; provided there are at least two Exitways located a reasonably remote distance apart on each floor which accommodates more than 10 persons; and further provided that in Group A and C buildings, any basements or cellars shall be sprinklered or shall be cut off from the upper floors by enclosure at the head or foot of all basement or cellar stairs.
- (5) Stairways in sprinklered buildings.

1404-3. Required Protection for Stairways

- (a) Except as provided in Paragraphs (b) and (c) below, required enclosures for stairways shall have a fire resistance rating of not less than 3/4 hour.
- (b) In any building of Fireproof or Semi-fireproof construction, or of other construction not over 4 stories high, and in any sprinklered building, required enclosures, may be constructed of 3/4-inch gypsum plaster on metal lath on each side of studs, or equivalent, or of wired glass in metal framework.

Gypsum plaster means a mixture of one part of neat gypsum to not more than two parts of sand by weight for the scratch coat, and one part of neat gypsum to not more than three parts of sand by weight for the brown coat.

- (c) In any building not over 4 stories high and in any sprinklered building, existing enclosures or parts thereof constructed of plaster on wood lath or equivalent, and in good repair, may be continued in use provided they are effectively fire stopped at the basement ceiling.
- (d) An enclosure required by this Section may include both elevators and stairs, but two or more separate stairways shall not be in a single enclosure.
- (e) In lieu of a full enclosure, stairways, including moving stairways, may be protected with an enclosure at the head or at the foot of each stairway from one floor to another. Stairways so protected will not be accepted as Exit Facilities. The construction of such enclosures shall be in accord with the requirements of Paragraphs (a), (b), and (c) above.

1404-4. Door and Window Openings in Required Enclosures for Stairways

- (a) All openings in required enclosures for stairways, except window openings to the exterior of the building, shall be protected with doors in accordance with the following Paragraphs. Movable transoms in such enclosures are prohibited.
- (b) Doors in such enclosures shall be metal doors or metal covered doors or solid wooden doors of the flush type of not less than 1 3/4-inch nominal thickness, except that existing doors in acceptable existing enclosures or parts thereof in any building not over 4 stories high and in any sprinklered building, may be any substantial wood doors having any wood panels not less than 1/2 inch thick covered on the side opposite the stair side with sheet steel not thinner than No. 28 U. S. gauge, securely attached with bolts or screws. Any glass in doors or fixed transoms shall be wired glass.

- (c) Doors in such enclosures, except doors opening into apartments, shall be self-closing; provided that doors protecting openings in required enclosures of stairways which are frequently used for other than emergency purposes; and doors protecting openings in required enclosures of stairways in sprinklered buildings may be arranged to close automatically in case of fire.

SECTION 1405. HORIZONTAL EXITS

1405.1 Construction of Horizontal Exits

A partition dividing a story and having a fire resistance rating of not less than 3/4 hour, containing no openings other than necessary doorways and properly protected duct openings, and with each doorway protected by a self-closing door at least equal in fire resistance to one and three-fourths inch nominal thickness flush type wooden door, shall be acceptable as a Horizontal Exit even though such partition is provided only in one story, provided an Exitway exists on each side of the partition.

SECTION 1406. EXTERIOR EXIT STAIRWAYS

1406-1. Existing Exterior Stairways

- (a) Exterior stairways heretofore constructed on buildings shall be accepted as Exit Facilities when conforming substantially to the requirements of Section 1406-1(b), below, for school buildings; theatres and Group B buildings, and section 1406-1(c), below, for other buildings.
- (b) Exterior Exit Stairways hereafter constructed on school buildings, theatres and Group B buildings shall conform to the requirements of Section 407.
- (c) Exterior Exit Stairways hereafter constructed on buildings other than school buildings, theatres and Group B buildings shall conform to the following minimum requirements:

- (1) They shall be constructed of incombustible materials, except on buildings of Frame construction or on buildings of Ordinary construction not over three stories in height.
- (2) They shall be constructed with stairs not less than 22 inches wide between rails, having risers not higher than 9 inches and having treads not narrower than 6 inches exclusive of nosing. Ladders may be used from the upper landing to the roof.
- (3) Unless the stair leading to the ground at the foot of the Stairway is permanently fixed, it shall be constructed with counter balancing devices that permit it to be easily and quickly released and placed in rigid position for use.
- (4) They shall be of sufficient strength to sustain a live load of 100 pounds per square foot or loads of 300 pounds spaced 3 feet center to center, each bearing on an area one foot wide by the depth of the tread, whichever will produce the greater stress.
- (5) They shall be so placed that they can be readily and safely reached by the occupants of the building.
- (6) They shall be so located that safe egress will be provided at the foot either directly or through an enclosed exitway to a street or to an open space that communicates with a street.
- (7) They shall be wide enough to insure that the movements of those using them will not be retarded.
- (8) All balconies and stairs shall be provided with substantial guard railings at least 4 feet high, without any openings greater than 8 inches in width, except that for industrial buildings, Group E buildings and buildings not over 5 stories high, triple guard rails equally spaced, with top rail not less than 3 1/2 feet high may be used.

- (9) Except on buildings not exceeding three stories in height and on buildings of Frame construction, all doors opening on or within 10 feet of the Exterior Exit Stairway shall be approved self-closing fire doors and any windows opening on or within 10 feet of the exterior stairway shall be approved fire windows; provided that where occupancy inside these windows or doors is such as to present a light fire hazard or is sprinklered, or the overall exit arrangements are such that this protection is of minor importance, this requirement may be waived by the fire official having jurisdiction.

SECTION 1407. SLIDE TYPE FIRE ESCAPES

1407-1. General

Slide Type Fire Escapes used as Exit Facilities shall conform to Section 409.

SECTION 1408. EXIT HALLWAYS

1408-1. General

Exit Hallways connecting Exit Stairways to the outside shall be protected in the same manner as the Exit Stairways served thereby.

SECTION 1409. EXIT DOORWAYS

1409-1. Hanging of Doors

Doors in required Exitways from Places of Assembly and from stores having a sales floor area in excess of 2,500 square feet shall be hung to swing opening the direction exit travel.

1409-2. Revolving Doors

- (a) Revolving doors shall not be used at Exit Doorways in

theaters or Group B buildings nor in buildings occupied as stores where more than 75 persons are likely to be congregated, unless there are also Exit Doorways of the swinging type, having an aggregate width of at least 50 percent of required width of Exit Doorways and there is at least one swinging door adjacent to each revolving door. Revolving doors shall not be used in Exitways from school buildings.

- (b) Revolving doors shall not be used in Exitways from Places of Assembly except under one or more of the following conditions:
- (1) Where the Place of Assembly is in a building of Fireproof or Semi-fireproof construction.
 - (2) Where the Place of Assembly and the remainder of the building are protected by an approved automatic sprinkler system.
 - (3) Where the Place of Assembly has a capacity of not over 200 persons and has an Exit Doorway of the swinging type adjacent to each revolving door.
 - (4) Where a place of refuge is provided for all occupants of the Place of Assembly in portions of the building between the Exit Doorways of the Place of Assembly and the revolving doors, and there is an Exit Doorway of the swinging type adjacent to each revolving door. Such place of refuge may consist of hallways, stairways, or areas separated from the Place of Assembly by Fire Walls or Fire Partitions.
- (c) Revolving doors shall be used in Exitways only at points in first story above grade.

1409-3. Panic Hardware

When fastening devices are installed on the Exit Doors of buildings or spaces in the classifications listed below, they shall be latches (fire exit bolts) which release when pressure of not to exceed 15 pounds is applied to the releasing devices

in the direction of exit travel. Such releasing devices may be bars or panels extending not less than two-thirds of the width of the (d) floor and placed at heights suitable for the service required usually not less than 30, nor more than 44 inches above the floor.

Schools having more than 4 classrooms.

Places of Assembly have a capacity in excess of 500 persons, except Churches.

Places of Assembly in school buildings have a capacity in excess of 200 persons.

1409-4. Other Hardware

In buildings in which the occupants are involuntarily detained and in which the Exit Doors must be kept locked, adequate arrangements shall be made to insure prompt evacuation of the occupants in case of fire.

SECTION 1410. MAINTENANCE, MARKING AND LIGHTING

1410-1. Physical Condition

Exitways shall at all times be maintained in good, safe, usable condition, and shall at all times be kept free and clear of obstructions and shall be readily accessible.

1410-2. Exit Signs

- (a) In rooms and stories accommodating more than 100 persons, Exit Doorways shall be plainly marked by approved exit signs, sufficiently illuminated when the floor area is occupied to be readily distinguished.
- (b) Enclosed interior stairways and exterior stairways, which are provided in or for a building in addition to the required stairways and which do not conform to the provisions of this Article for required stairways, shall be marked in a suitable

manner to indicate that they are not approved exits, but may be marked to indicate the extent to which they can be used as means of egress.

- (c) When the Exitways are not visible from all locations in public corridors directional signs shall be placed on walls or otherwise displayed in conspicuous locations to direct occupants thereto.

1410-3. Lighting

- (a) Required Exitways, including exterior open spaces to which they lead which give safe access to a street, shall be kept adequately lighted at all times that the building served thereby is occupied.
- (b) Electrical lighting shall be provided wherever natural lighting is inadequate.
- (c) Adequate lighting shall be provided in Places of Assembly during occupancy, except during a performance requiring dimming or darkness. During the showing of motion pictures, where it is the practice for patrons to proceed to and from seats at any time, such light intensity shall not be less than 1/20 of a foot candle at every point thirty inches above the floor.
- (d) Required lights that are likely to be or become dangerous in any way to occupants shall be protected by suitable wire netting or other efficient means against breakage and other hazards.
- (e) In Group A buildings and Group B buildings the artificial lighting required by this Section shall be by electricity so arranged and supplied that the interruption of service on any other circuit inside the building will not result in interruption of the required lighting.

(Note: This does not necessarily require a second source of electrical energy for the building.)

1410-4. Occupancy Prohibited

No part of an Exitway shall be used for any purpose which will interfere with its value as an Exitway.

ARTICLE 15

FIRE SAFETY FEATURES OF CONSTRUCTION

SECTION 1500. MASONRY WALLS

1500-1. General

Required masonry walls which are not otherwise regulated by this Article shall meet generally recognized minimum standards of safety. Such walls when conforming to the requirements of the current edition of any of the standards or codes listed below shall be accepted.

- (a) National Building Code recommended by American Insurance Association.
- (b) BOCA Basic Building Code recommended by Building Officials and Code Administrators International.
- (c) Southern Building Code recommended by Southern Building Code Congress.
- (d) Uniform Building Code recommended by International Conference of Building Officials.
- (e) Any other standard or code which is acceptable to the authority having jurisdiction.

SECTION 1501. FIRE WALLS

1501-1. Application

Fire Walls for which credit is claimed under any provision of

these Regulations shall conform to the requirements of this Section.

1501-2. Construction

Fire Walls shall be of approved masonry or reinforced concrete.

1501-3. Fire Resistance

Fire Walls for any combination of occupancy and construction shall have a fire resistance rating adequate to restrict the spread of fire from one side to the other, and shall have a fire resistance rating of at least 4 hours.

(Note: See definition of "Fire Division".)

1501-4. Termination at Top

The Fire Wall shall extend at least three feet above the roof of the building which it is to protect except where the roof is of Fireproof or Semi-fireproof construction; in which case the Fire Wall shall be carried up tightly against the underside of the roof slab.

1501-5. Openings

- (a) Except in sprinklered buildings, no openings in a Fire Wall shall exceed 120 square feet in area, with no dimension greater than 12 feet, and the aggregate width of all openings at any level shall not exceed 25 percent of the length of the wall.
- (b) Every opening in a required Fire Wall shall be protected on each side of the wall with an automatic fire door, approved for such opening, except that when an opening in a Fire Wall serves as a Horizontal Exit, one of the fire doors at each such opening may be replaced by a fire door approved for openings in Fire Partitions. Steel plate security doors may be substituted for approved Fire Doors in applications involving the protection of buildings used or occupied by persons under legal restraint.

(Note: The term, "persons under legal restraint" applies only to persons who are of sound mind and are not bedridden.)

SECTION 1502. FIRE PARTITIONS

1502-1. Construction

- (a) Fire Partitions shall have a fire resistance rating of at least two hours. They shall be constructed of approved masonry or reinforced concrete, or other approved form of construction of incombustible materials.
- (b) Fire Partitions shall be supported in each story on construction having a fire resistance rating of not less than two hours; provided that when they also are load bearing the supporting construction shall have a fire resistance rating of not less than three hours in case the building is of Fireproof construction.
- (c) The maximum unsupported height of a Fire Portion shall not exceed thirty times its total thickness unless suitably reinforced and anchored at floor and ceiling, or unless substantially secured to vertical supports at intervals of not over thirty times the thickness.
- (d) Fire Partitions shall be deemed continuous, even though the several parts are not directly over one another in successive stories, if the intervening parts of the floors at the levels where offsets occur are unpierced and of Fireproof construction or Semi-fireproof construction and all parts not supported directly on the foundations are carried on Fireproof construction.
- (e) Chases or recesses that would reduce the thickness below the required minimum shall not be built nor cut in Fire Partitions.

1502-2. Openings

- (a) Fire Partitions shall have no openings other than required door openings, or properly protected duct openings.
- (b) Openings in required Fire Partitions shall be equipped with approved automatic-closing or self-closing fire doors. A door listed in the current edition of the Underwriters Laboratories, Inc., "List of Inspected Fire Protection Equipment and Materials" as being approved for Class B situations shall be deemed satisfactory.

SECTION 1503. 3/4 HOUR FIRE RESISTING PARTITIONS

1503-1. Construction

- (a) 3/4 hour Fire Resisting Partitions shall have a fire resistance rating of at least 3/4 hour. They shall be of approved form of construction.
- (b) Such partitions may be load-bearing only where the construction is approved for that purpose.
- (c) Such partitions shall be well secured.

1503-2. Openings

- (a) Required 3/4 hour Fire Resisting Partitions shall have no openings other than required door openings, or properly protected duct openings.
- (b) Openings in required 3/4 hour Fire Resisting Partitions shall be equipped with substantial metal or metal covered doors or solid wooden doors of the flush type of nominal thickness not less than 1 3/4 inches. Doors shall be self-closing except as provided in Paragraph 1401(c).

SECTION 1504.0 FIRE RETARDANT CEILINGS

1504-1. Construction

(a) Fire Retardant Ceilings shall be constructed in accordance with one of the followings specifications:

- (1) Any ceiling assembly described as a "fire retardant ceiling" in a nationally promulgated standard in effect at or after the time of building construction.
- (2) Not less than 1/2 inch plaster consisting of one part gypsum to not over two parts sand on 3/8 inch perforated gypsum lath, attached to wood supports by nails not smaller than one and one-eighth inches long with 3/8 inch diameter heads, and with three-inch strips of expanded metal lath nailed over all joints in the gypsum lath with nails not smaller than 1 3/4 inches long with 1/2 inch heads.
- (3) Any combination floor and ceiling construction having a fire resistance rating of 3/4 hour or more.

SECTION 1505. MISCELLANEOUS REQUIREMENTS

1505-1. Wood Construction Around Fireplaces, Flues and Chimneys

- (a) In buildings where alterations involve the specified items, the provisions of this subsection shall apply.
- (b) All wooden beams and joists shall be trimmed away from flues and chimneys. Headers, beams and joists shall be not less than two inches from the outside face of a chimney or from masonry enclosing a flue. Headers supporting trimmer arches or fireplaces shall be not less than six inches from the inside face of the nearest flue.
- (c) No woodwork shall be placed within four inches of the back face of a fireplace; nor shall combustible lathing, furring or studding be placed against a chimney; but this shall not prevent plastering directly on the masonry or on metal lath and furring.
- (d) No wooden mantel or other woodwork shall be hereafter placed within eight inches of either side nor within twelve

inches of the top of a fireplace opening.

- (e) All spaces between the masonry or chimneys or flues and wooden joist, beams or headers shall be firestopped by filling with incombustible materials.
- (f) All spaces back of combustible mantels shall be filled with incombustible materials.

1505-2. Partitions in Multifamily Houses

In every building altered to be occupied as a multifamily house, unless sprinklered, partitions separating apartments, or apartments from public hallways, or apartments from other occupancies shall be 3/4 hour Fire Resisting Partitions.

1505-3. Transoms

In buildings converted to use as sleeping quarters, transoms or similar openings shall not be installed in walls or partitions separating public hallways from apartments and sleeping rooms.

1505-4. Floors in Multifamily Houses

In every building altered to be occupied as a multifamily house, the floor construction immediately above those parts of the building occupied for business purposes shall have a fire resistance rating of not less than 3/4 hour, unless such parts are sprinklered.

1505-5. Cellar Ceilings

In buildings of Ordinary construction or Frame construction, except one story buildings, altered to change their occupancy classification, the ceilings over cellars shall conform to the requirements for Fire Retardant Ceilings.

SECTION 1506. FIRESTOPPING

1506-1. Application

In buildings where alterations involve the specified items, the provisions of this Section shall apply.

1506-2. General

Firestopping shall be provided in buildings of Ordinary and Frame construction to cut off all concealed draft openings and form effectual fire barriers. Such firestopping shall be of wood two inches in nominal thickness, or of approved incombustible materials.

1506-3. Furred Walls

When the walls are furred, the furred space shall be firestopped at floors, ceilings and roofs.

1506-4. Partitions

- (a) Interior stud partitions shall be firestopped at the floors and ceilings of each story by a two inch, nominal dimension, plate, the width of the stud, or the equivalent.
- (b) When sliding doors are pocketed in partitions, such pockets shall be completely firestopped at the top, bottom and ends.

1506-5. Exterior Walls

Exterior walls of frame construction shall be properly firestopped at each floor level, at the top story ceiling level, at the roof level in the case of flat roofs, and at the foot of roof rafters in the case of sloping roofs.

1506-6. Wainscoting and Paneling

Combustible wainscoting or paneling attached to plastered walls and partitions shall be firestopped at floor and ceiling, or at top and bottom.

1506-7. Pipes, Shafting, Belts, Conveyors and Ducts

- (a) All openings around conduits, pipes or ducts shall be filled with approved incombustible material or shall be closed off by fitting incombustible material at the ceiling and floor line or on each side of the wall.
- (b) All openings for belts, chutes and conveyors shall be provided with approved slotted doors, or be otherwise suitably protected.

SECTION 1507. PROTECTION OF OPENINGS IN EXTERIOR WALLS

1507-1. Buildings Affected

- (a) Openings in exterior walls of buildings listed below shall be protected as required by this Section:
 - (1) Buildings over 70 feet in height to the floor of the highest story, or
 - (2) Buildings over one story in height whose occupants are bedridden, or under legal restraint, or who, because of age or mental or physical infirmities, would ordinarily be unable to make quick exit in case of emergency, or
 - (3) Portions of buildings used as Place of Assembly.
- (b) Exceptions: Churches, Group E buildings and buildings of Frame and Unprotected Metal construction are exempt from the requirements of this Section.

1507-2. Openings Affected

- (a) Approved fire windows or other approved protectives shall be installed in openings in exterior walls of buildings required to be protected when:
 - (1) They are less than 30 feet in a direct line from an opening in the wall of a building of Fireproof, Semifireproof, Heavy Timber, Ordinary or Noncombustible construction, or

- (2) They are less than 30 feet in a direct line from a building of Frame or Unprotected Metal construction, or
- (3) They are less than 30 feet distant from a roof of combustible construction or from an opening in a roof of any construction.

(b) **Exceptions:** Such protection is not required when:

- (1) The opening in questions and the opening against which it is to be protected are in walls in the same plane and are facing in the same direction, or
- (2) The opening in question is a show window which does not extend above the first full story above grade.

(c) For the purposes of this Section, any space within thirty feet devoted to use as a lumber yard or for the storage of comparable quantities of combustible material shall be considered as an exposing building.

1507-3. Fire Shutters

When equipped with fire shutters, at least one in every three openings facing a street in each story shall have such shutters arranged to be readily opened from the outside. Distinguishing marks shall be provided on these shutters.

1507-4. Exit Openings

When fire doors or fire shutters are used on openings to Exitways they shall be so arranged as not to obstruct such Exitways.

1507-5. Wired Glass

For the glazing of fire doors, when permitted, or of fire

windows, only wired glass shall be used which shall be not less than one-quarter inch thick.

1507-6. Closing of Protectives

Non-automatic fire doors, fire shutters and fire windows on exterior openings, when not required to be open, shall be kept closed by the occupant or occupants of the building having the use or control of them.

1507-7. Installation and Approval

Fire doors, fire windows, fire shutters, window sprinklers and other protectives required by this section shall be of approved types and installed in an approved manner. Devices enumerated in the "List of Inspected Fire Protection Equipment and Materials" issued by Underwriter Laboratories, Inc., as revised from time to time, and listed for the purposes intended, if installed in accordance with the provisions of the Standard of the National Fire Protection Association (N.F.P.A.-80 Standard For Fire Doors and Windows) shall be deemed to be approved within the meaning of this Section.

SECTION 1508. PROTECTION OF SHAFTWAYS

1508-1. Application

The provisions of this Subsection shall apply to all existing shaftways used for ventilation, light, elevator, pipes, or other purposes, except stairways, moving stairways, ducts, incinerator chutes and flues and shaftways in Frame Buildings and in Group C buildings of Ordinary construction extending from the ceiling of the top story to and above the roof.

1508-2. Protection Required

All interior shaftways shall be protected in the same manner and to the same extent as prescribed in Section 1404-2, 3 and 4 for interior stairways; provided that doors may be automatic closing if maintaining them self-closing is impractical; and further provided that in lieu of an enclosure, floor

openings for elevators, chutes, or conveyors in factories and industrial occupancies may be protected by substantial guards or gates with approved draft tight trap doors at each floor opening. Such trap doors shall be constructed to form a substantial floor surface when closed, and those for elevators shall be arranged to open and close by action of the elevator in ascending or descending. The trap doors shall be kept closed when the shaftway is not in use.

(Note: Hoistway doors may be considered self-closing when the elevator cab cannot be moved from the opening in question unless the doors are closed.)

ARTICLE 16

FIRE PROTECTION EQUIPMENT

SECTION 1600. GENERAL

1600-1. Design and Installation

All fire extinguishing equipment required by these Regulations, or for which credit is claimed under some provision of these Regulations, shall be designed and installed in accordance with good engineering practice. Compliance with the appropriate portions of the following Standards of the National Fire Protection Association shall be deemed prima facie evidence of compliance with this Article, in so far as they apply. Applicable Standards of the National Fire Protection Association, include:

"Sprinkler System Installation" (NFPA No. 13)

"Standpipe and Hose Systems" (NFPA No. 14)

"Local Protective, Auxiliary Signaling, Remote Station, Proprietary Signaling Systems" (NFPA No. 72)

1600-2. Materials

Materials, appliances, fittings and devices hereafter installed in fire extinguishing equipment required by this Article shall be of approved type and quality. Such materials, appliances, fittings and devices when currently approved by Underwriter's Laboratories, Inc., and listed for the purposes intended shall be accepted as conforming to the requirements of this Section.

SECTION 1601. SPRINKLER AND FIRE DETECTION EQUIPMENT**1601-1. When Required**

When a building or structure, due to its construction, occupancy, or other factors and due to the lack of an automatic sprinkler system or other approved automatic detection and extinguishing devices presents a condition excessively hazardous to life from fire, such building or structure shall be equipped with an approved automatic sprinkler system or other approved automatic detection and extinguishing devices on written order of the State Corporation Commission Chief Administrative Officer in those localities enforcing the Statewide Fire Prevention Code; or the Director of the Department of Housing and Community Development in other localities.

Note: This section applies only to buildings and structures constructed prior to April 12, 1949 and which have not been altered or changed use group since September 1, 1973.

1601-2. Water Supplies

Required sprinkler systems shall have at least one approved automatic water supply of adequate pressure, capacity and reliability.

ARTICLE 17

ADDITIONAL PROVISIONS FOR SPECIAL OCCUPANCIES

SECTION 1700. GENERAL

1700-1. Purpose

The intent of this Article is to require supplemental or modified safeguards for life from fire in buildings which, due to their occupancy, present hazards not fully regulated by the preceding Articles. The requirements of Article 11, 12, 13, 14, 15 and 16 shall apply to all buildings regulated by this Article except as modified by the provisions of this Article.

SECTION 1701. PLACES OF ASSEMBLY

1701-1. Application

Existing Places of Assembly in buildings shall conform to the requirements of this Section. No new Place of Assembly shall be established in a building unless it conforms to Section 701 and Section 702.

(Note: See Section 703 for Outdoor Places of Assembly.)

1701-2. Seating Arrangements

- (a) Except in gymnasiums, restaurants, night clubs, churches and other places of religious assembly, individual seats shall be provided for the persons seated therein.
- (b) The width of seat allotted for each person shall be not less than 18 inches.
- (c) Seats in rows, whether fixed or movable, shall, except in boxes or loges not exceeding 60 square feet in area, be not less than 30 inches apart from back to back measured in a horizontal direction.
- (d) When individual fixed seats are provided or required, the maximum number of seats in a row extending from one aisle

to another shall be 16 and the maximum number of seats in a row extending from one aisle to a wall shall be 8, except that if the seatings are fixed chairs with self-rising seats so spaced that when the seats are raised there is an unobstructed space of not less than 18 inches horizontal projection between the rows of seats, and doorways leading directly to exit corridors are provided not more than 5 feet apart along the sides of the auditorium, the number of seats in a row shall not be limited.

- (e) In Places of Assembly used regularly for theatrical, operatic or similar performances, or for the display of motion pictures, the seats, except in boxes or loges not exceeding 60 square feet in area, shall be fixed and shall be separated by arms.
- (f) In boxes or loges not exceeding 60 square feet in area, and in other locations where loose chairs are permitted, not more than one chair shall be provided for each 6 square feet of floor space occupied.

1701-3. Aisles

- (a) Every aisle shall lead to an exit door, or to a cross aisle; that is, an aisle running parallel with the seat rows and leading to an exit door.
- (b) No point of a cross aisle shall have a clear width of less than 33 inches.
- (c) No point of a longitudinal aisle shall have a clear width of less than 30 inches, except that the clear width may be 28 inches when there are seats on only one side of the aisle.
- (d) A longitudinal aisle accommodating more than 220 persons and leading to exits or cross aisles in one direction only, shall be widened uniformly in the direction of normal exit travel. The widest portion of the aisle shall be not less than as computed by the formula:

$$W = \frac{22P}{160}$$

Where W equals the required width in inches and P equals

the total number of persons to be accommodated by the aisle.

- (e) A longitudinal aisle accommodating more than 200 persons, and leading to exits or cross aisles in both directions shall conform to (d) above, or shall be of constant width. When of constant width, the width shall be not less than as computed by the formula:

$$W = 15 + \frac{11P}{160}$$

Where W equals the required width in inches and P equals the total number of persons to be accommodated by the aisle.

- (f) There shall be no steps in any main floor aisle, except at the rear of the main floor in a stadium type theatre. Steps in other aisles shall be the full width of the aisles. Stepped aisles shall not be construed as being stairways.

1701-4. Galleries and Balconies

In galleries, balconies or other locations where seatings are arranged on platforms or successive tiers, and the height of the riser from one platform to another below and in front of it exceeds 21 inches, a substantial railing not less than 26 inches high shall be placed at the edge of the platform along the entire row of seats.

1701.5. Stage

- (a) **General.** No stage for theatrical or similar performances, including drama, opera, vaudeville and the like, which requires or uses a curtain, portable or fixed scenery, light, mechanical appliances, or any of them shall be placed in a building except in conformity with the appropriate provisions of this subsection.
- (b) **Enclosure Walls.** the stage shall be separated form all other parts of the building by masonry walls having a fire resis-

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tance rating of not less than 2 hours and with openings protected as required in Paragraphs (c) and (d) below; except that in motion picture theatres, school auditoriums, clubs and similar Places of Assembly where the stage or platform is without provisions for the vertical shifting of scenery, separation between the stage and the auditorium shall not be required. Required separating walls shall extend from the foundation to at least 4 feet above the roof, except where the roof is of Fireproof or Semi-fireproof construction, in which case the walls shall be carried up tightly against the underside of the roof slab.

- (c) **Proscenium Wall Openings.** Each opening other than the proscenium opening in the wall which separated the stage from the auditorium shall be protected by an approved self-closing fire door of a type approved for use in Fire Partitions as provided in Section 1602.2.

(Note: The use of a door listed in the current List of Fire Protection Equipment, Underwriter's Laboratories, Inc. as satisfactory for protection of openings in Class B situations, properly installed, will be acceptable).

- (d) **Curtain.** The proscenium opening in the required separating partition between stage and auditorium shall be provided with an approved curtain for the protection of the opening in case of fire on the stage. When the proscenium opening is less than 60 feet in width, a curtain conforming to Chapter 41 of the 1949 Edition of the Uniform Building Code adopted by the Pacific Coast Building Officials Conference shall be deemed approved. For proscenium openings 60 feet in width or more, a curtain conforming to the requirements of Section 1201 of the 1949 Edition of the National Building Code recommended by the American Insurance Association shall be deemed approved. Curtains not conforming to the above standards shall be submitted to the authority having jurisdiction for approval prior to installation.

(Note: See Appendix A for Uniform Building Code curtain requirements. See Appendix B for National Building Code curtain requirements.)

- (e) Location of Electrical Switchboard. The switchboard for the electrical equipment of the stage shall be so located that it will be accessible at all times, and will be protected from falling objects and from the storage or placing of stage equipment against it.

1701-6. Extinguishing Equipment

- (a) Stages required to be separated from the auditorium shall be sprinklered under the roof of the stage, under the gridiron, the rigging loft and fly and tie galleries, under the stage, in dressing rooms, scene docks, workshops and storage rooms.
- (b) On stages required to be separated from the auditorium one approved 2 1/2-inch standpipe outlet shall be provided on each side of the stage. Each outlet shall be equipped with approved 1 1/2-inch hose and nozzle, the quantity of hose being sufficient to allow a stream to reach any portion of the stage section and in no case less than fifty feet.
- (c) One approved hand fire extinguisher suitable for extinguishing fires in ordinary materials shall be located on the stage at each side of the proscenium opening; a similar device shall be located accessible to but outside the projection booth.

1701-7. Places of Assembly Combined with Other Occupancies

No Place of Assembly having a stage as described in Paragraph 1701-5 (a), above, or which is used for the projection of motion pictures from nitrocellulose film, shall be continued in use within or attached to a building of other than Group A occupancy unless:

- (1) It is separated from such occupancy by wall, ceiling and floor construction having a fire resistance rating of not less than two hours, or,
- (2) Such other occupancy is equipped with an approved automatic sprinkler system.

1701-8. Flameproofing Requirements

- (a) Use of combustible material for decorative purposes shall be kept to a minimum in Places of Assembly, and all such material, including curtains, draperies, artificial trees or other decorative materials, but not including floors, walls or ceiling, shall be rendered flameproof. Such flameproofing shall be tested at intervals of not more than 6 months, and shall be renewed when found necessary.
- (b) On a stage requiring separation from the auditorium all scenery, drapes and sets used on the stage shall be coated or treated to render them flameproof.

SECTION 1702. MOTION PICTURE PROJECTION

1702-1. Application

In any building where motion pictures are projected from nitrocellulose film, the projection equipment and the storage and handling of such film shall conform to the requirements of this section.

1702-2. Projection Booths and Equipment

- (a) Motion picture projectors using nitrocellulose film shall be operated or set up for operation only within an approved enclosure, not less than 8 feet wide, 10 feet deep and 8 feet high for one projection machine, and not less than 14 feet wide, 10 feet deep and 8 feet high for 2 machines.
- (b) The walls and ceilings of the enclosure shall be of a form of construction having a fire resistance rating of not less than one hour. Only incombustible materials shall be used in the construction of the enclosure walls. All joints shall be sufficiently tight to prevent the discharge of smoke.
- (c) The enclosure shall have at least two exit doors, each not less than 30 inches wide and 6 feet high, protected by approved self-closing fire doors.
- (d) Two openings for each motion picture projector shall be

provided; one for the projectionist's view (observation port) shall be not larger than 200 square inches, and the other through which the picture is projected (projection port) shall be not larger than 120 square inches. Where separate stereoptican, spot or flood light machines are installed in the same enclosure with picture machines, not more than one opening for each such machine shall be provided for both the operator's view and for the projection of the light, but two or more machines may be operated through the same opening; such openings shall be as small as practicable and shall be capable of being protected by approved automatic shutters.

- (e) Each opening shall be provided with an approved gravity shutter set into guides not less than one inch at sides and bottom, and overlapping the top of the opening by not less than one inch when closed. Shutters shall be of not less than 10-gauge iron or its equivalent, or of 1/4 inch hard asbestos board. Guides shall be of not less than 10 gauge iron or its equivalent. Each shutter shall have a fusible link above it, and there shall also be one located over each upper projector magazine which, upon operating will close all the shutters. There shall also be provided suitable means for manually closing all shutters simultaneously from a point within the projection room near each exit door. Shutters on openings not in use shall be kept closed.
- (f) All shelves, furniture and fixtures within the enclosure shall be constructed of incombustible material.
- (g) Projection machines shall be adequately supported and secured against overturning.
- (h) Existing enclosures for motion pictures projectors may be continued in use if of a general construction such that the gases of combustion will not be liberated into the seating area; in which case the above requirements respecting size of enclosure and size and number of door openings thereto may be disregarded.

1702-3. Ventilation

- (a) Ventilation shall be provided by one or more mechanical exhaust systems which shall draw air from each arc lamp housing and from one or more points near the ceiling. Systems shall exhaust to the outdoors either directly or through an incombustible flue used for no other purpose. Exhaust capacity shall be not less than 15 cubic feet nor more than 50 cubic feet per minute for each arc lamp plus 200 cubic feet per minute for the room itself. Systems shall be controlled from within the enclosure and have pilot lights to indicate operation. The exhaust system serving the projection room may be extended to cover rooms associated therewith, such as rewind rooms, but ventilation of these rooms shall not be connected in any way with ventilation or air conditioning systems serving other portions of the building.
- (b) Exhaust ducts shall be of incombustible material and shall either be kept one inch from combustible material or covered with 1/2 inch of incombustible heat insulating material.
- (c) Fresh air intakes other than those direct to the open air shall be protected by approved fire shutters arranged to operate automatically with the port shutters.

SECTION 1703. GARAGES

1703-1. Application

The provisions of this Section apply to buildings occupied as garages.

1703-2. Garages Combined with Other Occupancies

- (a) Except as permitted in paragraph (b) below, and for fire stations, no garage shall be located in or attached to a Group A, Group B, Group C, or Group D building of other than industrial occupancy unless:
 - (1) The garage is separated from such other occupancies by Fire Partitions and by floors and ceilings of

Fireproof or Semi-fireproof construction, or

- (2) The garage area is equipped with an approved automatic sprinkler system.
- (b) A garage not exceeding 3,000 square feet in area and used only for storage of passenger automobiles or trucks of one ton or less capacity may be located in or attached to a Group A, Group B, Group C, or Group D building of other than industrial occupancy when:
- (1) The garage area is separated from such occupancy by wall, floor and ceiling construction of at least 3/4 hour fire resistance with all connecting openings protected by approved self-closing fire doors as specified for 3/4 hour Fire Resisting Partitions, or
 - (2) The garage area is equipped with an approved automatic sprinkler system.

1703-3. Ventilation

All garages having one or more floors below grade shall have such stories continuously ventilated by a mechanical ventilating system with positive means for both the inlet and exhaust of at least one cubic foot of air per minute per square foot of floor area. Controls for the exhaust and inlet fans shall be close to the entrance may be combined with the heating system, provided that no air shall be recirculated.

1703-4. Miscellaneous

Ramps connecting floors of garages need not be enclosed and protected in the various stories if the garage is protected with automatic sprinklers or if ramps are around an open air shaft extending through the roof, or if fifty percent of the wall area of two sides of the garage is open to the air at each story above the first floor, or above the basement floor if a basement is provided. Suitable egress provisions shall be provided for persons from each floor.

ADDENDUM 3

APPOINTMENT OF LOCAL FIRE OFFICIAL

§ 27-30. Appointment of fire marshal. — An officer, who shall be called a "fire marshal," may be appointed for each county, city or town, by the governing body thereof, whenever, in the opinion of such body, the appointment shall be deemed expedient. The term "fire marshal" as used in this chapter may include the local fire official and local arson investigator when appointed pursuant to this section. (Code 1919, § 3137; 1970, c. 187; 1977, c. 334; 1984, c. 644.)

§ 27-34.2. Power to arrest, to procure and serve warrants and to issue summons; limitation on authority. — In addition to such other duties as may be prescribed by law, the local fire marshal and his assistants appointed pursuant to § 27-36 shall, if authorized by the governing body of the county, city or town appointing the local fire marshal, have the authority to arrest, to procure and serve warrants of arrest and to issue summons in the manner authorized by general law for violation of local fire prevention and fire safety and related ordinances. The authority granted in this section shall not be exercised by any local fire marshal or assistant until such person has satisfactorily completed a training course designed specifically for local fire marshals and their assistants, which course shall be approved by the Virginia Fire Services Board.

The Department of Fire Programs in cooperation with the Department of Criminal Justice Services shall have the authority to design, establish and maintain the required courses of instruction through such agencies and institutions as the Departments jointly may deem appropriate and to approve such other courses as such Departments determine appropriate.

The authority granted in this section shall not be construed to authorize a fire marshal or his assistants to wear or carry firearms. (1974, c. 334; 1975, c. 173; 1979, c. 402; 1984, c. 779; 1986, c. 60; 1988, c. 65.)

§ 27-34.2.1. Police powers of fire marshals. — In addition to such other duties as may be prescribed by law, the local fire marshal and those assistants appointed pursuant to § 27-36 designated by the fire marshal shall, if authorized by the governing body of the county, city or town appointing the local fire marshal, have the same police powers as a sheriff, police officer or law-enforcement officer. The investigation and prosecution of all offenses involving fires, fire bombings, bombings, attempts or threats to commit such offenses, false alarms relating to such offenses, possession and manufacture of explosive devices, substances and fire bombs shall be the responsibility of the fire marshal or his designee, if authorized by the governing body of the county, city or town appointing the local fire marshal. The police powers granted in this section shall not be exercised by any local fire marshal or assistant until such person has satisfactorily completed a course for fire marshals with police powers, designed by the Department of Fire Programs in cooperation with the Department of Criminal Justice Services, which course shall be approved by the Virginia Fire Services Board.

In addition, fire marshals with police powers shall continue to exercise those powers only upon satisfactory participation in in-service and advanced courses and programs designed by the Department of Fire Programs in cooperation with the Department of Criminal Justice Services, which courses shall be approved by the Virginia Fire Services Board. (1977, c. 209; 1979, c. 446; 1984, c. 779; 1986, c. 60; 1988, c. 65.)

§ 27-34.3. Power to order immediate compliance with law, etc., or prohibit use of building or equipment. — The local fire marshal shall, if authorized by the governing body of the county, city or town appointing him, have the authority to exercise the powers authorized by the Fire Prevention Code. However, an order prohibiting the use of a building or equipment — issued pursuant to this section shall not be effective beyond the date of a determination made by the authorities identified in and pursuant to § 27-97, regardless of whether or not said determination overrules, modifies or affirms the order of the local fire marshal. If an order of the local fire marshal issued pursuant to this section conflicts to any degree with an order previously issued by an authority identified in and pursuant to § 27-97, the latter order shall prevail. The local fire marshal shall immediately report to the authorities identified in § 27-97 on the issuance and content of any order issued pursuant to this section. (1975, c. 216; 1988, c. 199.)

§ 27-34.4. Inspection and review of plans of buildings under construction. — Inspection of buildings other than state-owned buildings under construction and the review and approval of building plans for these structures for enforcement of the Uniform Statewide Building Code shall be the sole responsibility of the appropriate local building inspectors. Upon completion of such structures, responsibility for fire safety protection shall pass to the local fire marshal or official designated by the locality to enforce the Statewide Fire Prevention Code (§ 27-94 et seq.) in those localities which enforce the Statewide Fire Prevention Code. (1980, c. 498; 1989, c. 258.)

§ 27-35. Penalty for failure to discharge duty. — For his failure to discharge any duty required of him by law the fire marshal shall be liable for each offense to a fine not exceeding \$100, to be imposed by the governing body and to be collected as other fines are collected. (Code 1919, § 3138.)

§ 27-36. Appointment, powers and duties of assistant fire marshals. — The governing body of any county, city or town may appoint one or more assistants, who, in the absence of the fire marshal, shall have the powers and perform the duties of the fire marshal. (Code 1919, § 3140; 1970, c. 187; 1984, c. 644.)

§ 27-37. Oath of fire marshal and assistants. — The fire marshal and his assistants, before entering upon their duties, shall respectively take an oath, before any officer authorized to administer oaths, faithfully to discharge the duties of such office; the certificate of the oath shall be returned to and preserved by such governing body. (Code 1919, § 3140.)

ADDENDUM 4

STATEWIDE FIRE PREVENTION CODE ACT

§ 27-94. Short title. — This chapter may be cited as the "Virginia Statewide Fire Prevention Code Act." (1986, c. 429.)

§ 27-95. Definitions. — As used in this chapter, unless the context or subject matter requires otherwise, the following words or terms shall have the meaning herein ascribed to them:

"Board" means the Board of Housing and Community Development.

"Code provisions" means the provisions of the Fire Prevention Code as adopted and promulgated by the Board, and the amendments thereof as adopted and promulgated from time to time by such Board.

"Enforcement agency" means the agency or agencies of any local governing body or the State Fire Marshal charged with the administration or enforcement of the Fire Prevention Code.

"Fire Prevention Code" or "Code" means the Statewide Fire Prevention Code.

"Fire prevention regulation" means any law, rule, resolution, regulation, ordinance or code, general or special, or compilation thereof to safeguard life and property from the hazards of fire or explosion arising from the improper maintenance of life safety and fire prevention and protection materials, devices, systems and structures, and the unsafe storage, handling and use of substances, materials and devices, including explosives and blasting agents, wherever located, heretofore or hereafter enacted or adopted by the Commonwealth or any county or municipality, including departments, boards, bureaus, commissions or other agencies.

"Fire Services Board" means the Virginia Fire Services Board as provided for in § 9-153.1.

"Inspection warrant" means an order in writing, made in the name of the Commonwealth, signed by any judge or magistrate whose territorial jurisdiction encompasses the building, structure or premises to be inspected or entered, and directed to a state or local official, commanding him to enter and to conduct any inspection, examination, testing or collection of samples for testing required or authorized by the Virginia Statewide Fire Prevention Code.

"Local government" means the governing body of any city, county or town in this Commonwealth.

"State Fire Marshal" means the State Fire Marshal as provided for by § 36-139.2. (1986, c. 429; 1988, cc. 340, 549; 1989, c. 258.)

§ 27-96. Statewide standards. — The purposes of this chapter are to provide for statewide standards for optional local enforcement to safeguard life and property from the hazards of fire or explosion arising from the improper maintenance of life safety and fire prevention and protection materials, devices, systems and structures, and the unsafe storage, handling, and use of substances, materials and devices, including explosives and blasting agents, wherever located. (1986, c. 429; 1988, c. 340.)

§ 27-97. Adoption of Fire Prevention Code. — The Board of Housing and Community Development is hereby empowered to adopt and promulgate a Statewide Fire Prevention Code which shall be cooperatively developed with the Fire Services Board pursuant to procedures agreed to by the two Boards. The Fire Prevention Code shall prescribe rules and regulations to be complied with for the protection of life and property from the hazards of fire or explosion and for the handling, storage and use of explosives or blasting agents, and shall provide for the administration and enforcement of such rules and regulations. The Fire Prevention Code shall require manufacturers of explosives, as defined in the Code, to register and report information concerning their manufacturing facilities and methods of operation within this Commonwealth in accordance with regulations adopted by the Board. The Board shall also establish rules and regulations for obtaining permits for the manufacturing, storage, handling, use or sales of explosives. Such permits shall not apply to the storage, handling, or use of explosives or blasting agents pursuant to the provisions of Title 45.1.

The Fire Prevention Code shall supersede fire prevention regulations heretofore adopted by local governments or other political subdivisions. Local governments are hereby empowered to adopt fire prevention regulations that are more restrictive or more extensive in scope than the Fire Prevention Code provided such regulations do not affect the manner of construction, or materials to be used in the erection, alteration, repair, or use of a building or structure.

In formulating the Fire Prevention Code, the Board shall have due regard for generally accepted standards as recommended by nationally recognized organizations including, but not limited to, standards of the Southern Building Code Congress, the Building Officials and Code Administrators International, Inc., the National Fire Protection Association, and recognized organizations issuing standards for the protection of the public from the hazards of explosives and blasting agents. Such standards shall be based on the companion document to the model building code referenced by the Uniform Statewide Building Code. The Fire Prevention Code shall require that buildings constructed prior to 1973 be maintained in accordance with state fire and public building regulations in effect prior to March 31, 1986. The Board may modify, amend or repeal any Code provisions as the public interest requires. Any such Code changes shall be developed in cooperation with the Fire Services Board pursuant to procedures agreed to by the two Boards. (1986, c. 429; 1988, cc. 199, 340; 1989, cc. 90, 420.)

§ 27-98. Enforcement of Fire Prevention Code; appeals from decisions of local enforcing agencies; inspection of buildings. — Any local government may enforce the Fire Prevention Code. The State Fire Marshal shall have authority to enforce the Code in those jurisdictions in which the local governments do not enforce the Code. The local governing body may establish such procedures or requirements as may be necessary for the administration and enforcement of the Code. Appeals concerning the application of the Code by the local enforcing agency shall first lie to a local board of appeals and then to the State Building Code Technical Review Board. Appeals from the application of the Code by the State Fire Marshal shall be made

§ 27-99. State buildings. — The Fire Prevention Code shall be applicable to all state-owned buildings and structures. Every agency, commission or institution of the Commonwealth shall permit, at all reasonable hours, a local fire official reasonable access to existing structures or a structure under construction or renovation, for the purposes of performing an informational and advisory fire safety inspection. The local fire official may submit, subsequent to performing such inspection, his findings and recommendations including a list of corrective actions necessary to ensure that such structure is reasonably safe from the hazards of fire to the appropriate official of such agency, commission, or institution and the State Fire Marshal. Such agency,

§ 27-100. Violation a misdemeanor. — It shall be unlawful for any owner or any other person, firm, or corporation, on or after the effective date of any Code provisions, to violate any provisions of the Fire Prevention Code. Any such violation shall be deemed a Class 1 misdemeanor, and any owner, or any other person, firm, or corporation convicted of such violation shall be punished in accordance with the provisions of § 18.2-11. (1986, c. 429.)

§ 27-101. Injunction upon application. — Every court having jurisdiction under existing or any future law is empowered to and shall, upon the application of the local enforcing agency or State Fire Marshal, issue either a mandatory or restraining injunction in aid of the enforcement of, or in prevention of the violation of, any of the provisions of this law or any valid rule or regulation made in pursuance thereof. The procedure for obtaining any such injunction shall be in accordance with the laws then current governing injunctions generally except that the enforcing agency shall not be required to give bond as a condition precedent to obtaining an injunction. (1986, c. 429.)

STATE BUILDING CODE TECHNICAL REVIEW BOARD

§ 36-114. Board to hear appeals from decisions under Building Code, Fire Prevention Code, and Industrialized Building Safety Law. — The Review Board shall have the power and duty to hear all appeals from decisions arising under application of the Building Code, the Fire Prevention Code adopted under the Statewide Fire Prevention Code Act (§ 27-94 et seq.), and the Industrialized Building Safety Law (§ 36-70 et seq.), and to render its decision on any such appeal, which decision shall be final if no appeal is made therefrom. Proceedings of the Review Board shall be governed by the provisions of the Administrative Process Act (§ 9-6.14:1 et seq.). (1972, c. 829; 1977, c. 423; 1986, cc. 37, 429.)

§ 36-118. Interpretation of Code; recommendation of modifications. — The Review Board shall interpret the provisions of the Building Code, the Fire Safety Code, and the Fire Prevention Code, and shall make such recommendations, which it deems appropriate, to the Board for modification, amendment or repeal of any of such provisions. A record of all such recommendations, and of the Board's actions thereon, shall be kept in the office of the Review Board. Such record shall be open to public inspection at all times during business hours. (1972, c. 829; 1977, c. 613; 1986, c. 429.)

§ 36-119.1. Existing buildings. — This chapter shall not supersede provisions of the Fire Prevention Code promulgated by the Board under § 27-97, that prescribe standards to be complied with in existing buildings or structures, provided that such regulations shall not impose requirements that are more restrictive than those of the Uniform Statewide Building Code under which the buildings or structures were constructed. Subsequent alteration, enlargement, repair, or conversion of the occupancy classification of such buildings and structures shall be subject to the Building Code. (1986, c. 429; 1988, c. 199.)

ADDENDUM 6

STATE FIREWORKS LAW

§ 59.1-142. When manufacture, transportation, sale, etc., of fireworks unlawful. — Except as otherwise provided in this chapter, it shall be unlawful for any person, firm or corporation to transport, manufacture, store, sell, offer for sale, expose for sale, or to buy, use, ignite or explode any firecracker, torpedo, skyrocket, or other substance or thing, of whatever form or construction, that contains any explosive or inflammable compound or substance, and is intended, or commonly known, as fireworks and which explodes, rises into the air or travels laterally, or fires projectiles into the air other than sparks or those fireworks excepted under the provisions of subsection (a) of § 59.1-147. (Code 1950, § 59-214; 1950, p. 423; 1968, c. 439; 1986, c. 175.)

§ 59.1-143. Seizure and destruction of certain fireworks. — Any law enforcement officer arresting any person for a violation of this chapter shall seize any article mentioned in § 59.1-142 in the possession or under the control of the person so arrested and shall hold the same until final disposition of any criminal proceedings against such person. If a judgment of conviction be entered against such person, the court shall order destruction of such articles upon expiration of the time allowed for appeal of such judgment of conviction. (Code 1950, § 59-214.1; 1958, c. 168; 1968, c. 439.)

§ 59.1-144. Permits for display of fireworks; sales for use thereunder. — The governing bodies of the several counties, cities and towns shall have the power to provide for the issuance of permits, upon application in writing for the display of fireworks by fair associations, amusement parks, or by an organization or group of individuals, under such terms and conditions as they may prescribe. After such permit has been issued sales of fireworks may be made for use under such permit, and the association, organization or group to which it is issued may make use of such fireworks under the terms and conditions of such permit. (Code 1950, § 59-215; 1968, c. 439.)

§ 59.1-145. Penalty for violation. — Any person who violates any provision of this chapter shall be guilty of a misdemeanor and, upon conviction thereof, be punished by confinement in jail not to exceed twelve months, or by a fine not exceeding \$1,000, or both such fine and imprisonment. (Code 1950, § 59-216; 1964, c. 569; 1968, c. 439.)

§ 59.1-146. Exemptions generally. — This chapter shall have no application to any officer or member of the armed forces of this Commonwealth, or of the United States, while acting within the scope of his authority and duties as such, nor to any offer of sale or sale of fireworks to any authorized agent of such armed forces; nor shall it be applicable to the sale or use of materials or equipment, otherwise prohibited by this chapter, when such materials or equipment is used or to be used by any person for signaling or other emergency use in the operation of any boat, railroad train or other vehicle for the transportation of persons or property. (Code 1950, § 59-217; 1968, c. 439.)

§ 59.1-147. Chapter inapplicable to certain fireworks; such fireworks to be used only on private property. — (a) This chapter shall not apply to the use or the sale of sparklers, fountains, Pharoah's serpents, caps for pistols, or to pinwheels commonly known as whirligigs or spinning jennies;

(b) Provided, however, the fireworks listed in subsection (a) may only be used, ignited or exploded on private property with the consent of the owner of such property. (Code 1950, § 59-218; 1952, c. 95; 1958, c. 168; 1968, c. 439; 1973, c. 12.)

§ 59.1-148. Local ordinances not affected. — Nothing contained in this chapter shall apply to any ordinance prohibiting the sale, storage, use, possession or manufacture of fireworks heretofore or hereafter adopted by any county, city or town. (Code 1950, § 59-219; 1968, c. 439.)

**SMOKE DETECTORS FOR THE DEAF
AND HEARING-IMPAIRED**

§ 36-99.5. Smoke detectors for the deaf and hearing-impaired. — Smoke detectors providing an effective intensity of not less than 100 candela to warn a deaf or hearing-impaired individual shall be provided, upon request by the occupant to the landlord or proprietor, to any deaf or hearing-impaired occupant of any of the following occupancies, regardless of when constructed:

1. All dormitory buildings arranged for the shelter and sleeping accommodations of more than twenty individuals;

2. All multiple-family dwellings having more than two dwelling units, including all dormitories, boarding and lodging houses arranged for shelter and sleeping accommodations of more than five individuals; or

3. All buildings arranged for use of one-family or two-family dwelling units.

A tenant shall be responsible for the maintenance and operation of the smoke detector in the tenant's unit.

A hotel or motel shall have available no fewer than one such smoke detector for each seventy units or portion thereof, except that this requirement shall not apply to any hotel or motel with fewer than thirty-five units. The proprietor of the hotel or motel shall post in a conspicuous place at the registration desk or counter a permanent sign stating the availability of smoke detectors for the hearing-impaired. Visual detectors shall be provided for all meeting rooms for which an advance request has been made.

The proprietor or landlord may require a refundable deposit for a smoke detector, not to exceed the original cost or replacement cost, whichever is greater, of the smoke detector. Rental fees shall not be increased as compensation for this requirement.

Landlords shall notify hearing-impaired tenants of the availability of special smoke detectors; however, no landlord shall be civilly or criminally liable for failure to so notify. New tenants shall be asked, in writing, at the time of rental, whether visual smoke detectors will be needed.

Failure to comply with the provisions of this section within a reasonable time shall be punishable as a Class 3 misdemeanor.

This law shall have no effect upon existing local law or regulation which exceeds the provisions prescribed herein. (1984, c. 753; 1988, c. 183.)

