

**STATE OF MINNESOTA  
DEPARTMENT OF PUBLIC SAFETY  
FIRE MARSHAL DIVISION**

In the Matter of the Proposed Amendments to Rules of the State Department of Public Safety Governing the Minnesota Uniform Fire Code.

STATEMENT OF NEED AND  
REASONABLENESS

The proposed rules are amendments to the Minnesota Uniform Fire Code (MUFC). The MUFC was originally adopted October 3, 1975 by the State Department of Public Safety. The last time that the MUFC was amended was October 2, 1989.

Pursuant to Minnesota Statutes, section 299F.011, the Commissioner of Public Safety through the State Fire Marshal Division is charged with the responsibility of promulgating a statewide fire code. It is the duty of the commissioner to amend the MUFC to maintain the most up-to-date standards regarding minimum safeguards of life and property together with regulating and controlling the use and maintenance of buildings and structures.

The most recent version of the MUFC, effective October 2, 1989, Minnesota Rules, parts 7510.3100 to 7510.3280, adopted by reference the 1988 Edition of the Uniform Fire Code (UFC) with certain amendments as a portion of the Minnesota Uniform Fire Code. The proposed rules contain amendments to the MUFC which adopt and include amendments to the 1991 Edition of the UFC as promulgated by the International Conference of Building Officials and the Western Fire Chiefs Association of Whittier, California.

The proposed MUFC establishes minimum uniform rules for the state of Minnesota by adopting the entire model code and making minor amendments to it in order to be consistent with Minnesota laws and rules, as well as to address fire safety concerns which are specific to the state of Minnesota.

A number of the amendments contained in these rules are made to conform with the State Building Code (SBC). The intent is to correlate the provisions of the MUFC with those in the SBC so that conflicts are eliminated. The intent of the International Conference of Building Officials and the Western Fire Chiefs Association, which publish the UFC, was that the Uniform Building Code (UBC) and the UFC correlate and be compatible. The UBC, as published by the International Conference of Building Officials, has been adopted by reference and amended as part of the SBC by the Commissioner of Administration pursuant to Minnesota Statutes, section 16B.61, subdivision 1.

Other amendments have been made at the request of the Minnesota State Fire Chiefs' Association Fire Code Committee in an effort to reduce the complexity of the fire code adoption process at the local level. Several amendments have been made which will help local units of government by making the fire code less complex and easier to enforce. In addition some of the amendments which are proposed are intended to assist local communities to address their unique fire safety concerns. This is consistent with Minnesota Statutes, section 299F.011, subdivision 4, which allows local units of government to adopt fire-safety regulations which are in addition to or more stringent than the MUFC as long as they are uniform for each type of building covered and do not exceed the applicable requirements of the SBC.

The State Fire Marshal has received input from affected parties in the development of these rules. A Notice of Solicitation was published in the June 3, 1991, State Register. In August of 1992, a discussion draft of the proposed rules was sent to the fire code representatives of the Minnesota State Fire Chiefs Association and the Fire Marshals Association of Minnesota for comments and suggestions. The State Fire Marshal's Division has also held discussions with school officials regarding the impact of the MUFC on schools. Further, the State Fire Marshal's Division has met with other interested parties to discuss issues affecting those parties. Those efforts have generated a number of comments and resulted in a number of modifications to the discussion draft to make the rules more workable for affected parties while still maintaining an acceptable level of fire safety.

### Statutory Authority

Minnesota Statutes, section 299F.011, subdivision 1, states: "The commissioner of public safety through the division of fire marshal may promulgate a uniform fire code and make amendments thereto in accordance with the administrative procedure act in chapter 14." The Commissioner also has general rulemaking authority under Minnesota Statutes, section 299A.01, subdivision 6, "to promulgate such rules pursuant to chapter 14, as are necessary to carry out the [duties of the Commissioner]."

### Small Business Considerations

The State Fire Marshal has evaluated the effect of the proposed rules on small businesses and has considered each of the methods prescribed by Minnesota Statutes, section 14.115, subdivision 2, for reducing the impact of the rules on small businesses. The proposed rules do not require businesses to make reports so the methods for reducing the impact of reporting requirements identified in paragraphs (a), (b), and (c) are not applicable.

The methods for reducing the impact of compliance requirements set out in paragraphs (a), (b), (c), and (e) are not applicable because the purpose of these rules is to establish a set of minimum uniform fire safety standards for all public, private, commercial, industrial and residential structures within the state of Minnesota for protecting life and property from the hazards of fire. Protection of life and property of the citizens of the state is provided at the least possible cost consistent with recognized standards. To exempt small businesses from any or all of the requirements of the rules would be contrary to the statutory objectives that are the basis of the proposed rulemaking. The legislature has specifically mandated that the uniformity of fire safety standards is in the public interest as outlined in Minnesota Statutes, section 299F.011, subdivisions 1 and 4, which state in part:

"The (fire) code and its amendments shall conform insofar as practicable to model fire codes generally in use throughout the United States..." and

"The uniform fire code shall be applicable throughout the state and in all political subdivisions and municipalities therein."

Paragraph (d) of Minnesota Statutes, section 14.115, subdivision 2, calls for the establishment of performance standards for small businesses as one method of reducing the impact of the rules upon them. The fire code and its amendments are based on the application of scientific principles, approved test methods, and professional judgement, and to the greatest extent possible, utilize performance-based standards rather than requiring specific methods or materials. Since the UFC and its amendments utilize performance standards in their application to all entities subject to the code, the methods of reducing the impact of the rules provided by paragraph (d) have been utilized. Therefore, no special changes are necessary for small businesses.

### Fees Imposed By The Rules

Since these rules do not fix or impose fees, Minnesota Statutes, section 16A.128, subdivisions 1a and 2a, do not apply.

### Fiscal Impact

The State Fire Marshal Division has evaluated the effects of Minnesota Statutes, section 14.11, subdivision 1, and believes that the promulgation of these proposed rules will not result in the expenditure of additional monies by local public bodies.

### Agricultural Land Impact

Minnesota Statutes, section 14.11, subdivision 2, does not apply because the adoption of these rules will not have an impact on agricultural land.

### Incorporations By Reference

A number of documents are incorporated into the rules by reference. The revisor of Statutes has approved these incorporations by reference and has listed them on the title pages to the proposed rules.

### Other Statutory Requirements

Minnesota Statutes, sections 115.43, subdivision 1, 116.07, subdivision 6, and 114A.29, subdivision 4, do not apply to these rules.

### Witnesses

If the rules go to a public hearing, the witnesses listed below will be available to testify in support of the need for and reasonableness of the rules and to answer questions about the development and the content of the rules.

- Thomas Brace, State Fire Marshal, Fire Marshal Division, Minnesota Department of Public Safety, 285 Bigelow Building, 450 North Syndicate Street, St. Paul, Minnesota 55104.
- Jon Nisja, Supervisor, Fire Marshal Division, Minnesota Department of Public Safety, 285 Bigelow Building, 450 North Syndicate Street, St. Paul, Minnesota 55104.
- Robert Imholte, Supervisor, Fire Marshal Division, Minnesota Department of Public Safety, 285 Bigelow Building, 450 North Syndicate Street, St. Paul, Minnesota 55104.
- Dave Orren, Rules Coordinator, Minnesota Department of Public Safety, 208 Transportation Building, 395 John Ireland Boulevard, St. Paul, Minnesota 55155.
- Any other employee of the State Fire Marshal Division or the Minnesota Department of Public Safety.

### Renumbering By Revisor

The existing MUFC adopts the 1988 UFC and then modifies it to be specific to Minnesota. The proposed MUFC does the same with the 1991 UFC. Because the existing rules and the proposed rules incorporate two similar but distinct codes, the Revisor of Statutes recommended that the existing rules be repealed and that a new series of rule numbers be used for the proposed rules.

A comparison of the rule part numbers for the existing and the proposed rules is as follows:

<u>1988 MUFC</u>	<u>1991 MUFC</u>	<u>TITLE</u>
7510.3100	7510.3290	Purpose
7510.3110	7510.3300	Scope
7510.3120	7510.3310	Rules and Standards Adopted By Reference
7510.3130	7510.3320	Article 1
7510.3140	7510.3330	Article 2
7510.3150	7510.3340	Article 4
7510.3160	7510.3350	Article 9
7510.3170	7510.3360	Article 10
7510.3180	7510.3370	Article 11
7510.3190	7510.3380	Article 12
	7510.3390	Article 13
7510.3200	7510.3400	Article 14
7510.3210	7510.3410	Article 26
7510.3220	7510.3420	Article 61
7510.3230	7510.3430	Article 77
7510.3240	7510.3440	Article 79
7510.3250	7510.3450	Article 80
7510.3260	7510.3460	Article 82
7510.3270	7510.3470	Article 85
7510.3280	7510.3480	Amendments To Appendices

### Rule-By-Rule Analysis

The need for and reasonableness of each substantive rule is described in the following paragraphs.

The following rule parts contain amendments to the 1991 edition of the Uniform Fire Code which are the same as the amendments to the 1988 edition. Whereas these rule parts amend the 1991 Uniform Fire Code in the same manner as the existing rule parts amend the 1988 edition, the need for and reasonableness of these rule parts are not addressed in this document. These rule parts are:

7510.3320  
7510.3330, Subparts 2, 5, 7  
7510.3340, Subpart 1  
7510.3350, Subparts 1, 2, 5, 6, 12, 15, 16

7510.3410, Subparts 1-5  
7510.3440, Subpart 1  
7510.3480, Subparts 4, 5

The following rules contain amendments to the 1991 edition of the UFC which are minor changes which do not modify the requirements of the code from previous editions. These changes are necessary due to numbering and format changes within the code or due to a request by the Revisor of Statutes to clarify definitions or format. Whereas these rules are primarily "editorial" in nature and contain no new requirements, the need for and reasonableness of these rules are not addressed in any great detail, other than to identify the affected section(s). These rules are:

7510.3300  
7510.3330, Subparts 1, 4  
7510.3340, Subpart 2  
7510.3350, Subparts 3, 7, 11, 17  
7510.3360, Subparts 1, 2, 4, 5  
7510.3370, Subparts 1, 2  
7510.3380, Subparts 1, 3

7510.3390  
7510.3420  
7510.3430, Subparts 1, 2  
7510.3440, Subparts 2, 6, 7  
7510.3450  
7510.3470

**7510.3290. Purpose.** (Formerly 7510.3100) A change was made to this wording to be consistent with language found in the scope section of the 1991 UFC.

**7510.3300. Scope.** (Formerly 7510.3110) Changes were made to the rule part numbers to reflect the new numbers.

**7510.3310. Rules And Standards Adopted By Reference.** (Formerly 7510.3120) The 1991 edition of the UFC, a nationally recognized model code, is adopted to replace the existing 1988 edition. Minnesota Statutes, section 299F.011, subdivision 1, specifies that the state fire code shall conform insofar as practicable to model fire codes generally accepted and in use throughout the United States. This most current edition of the UFC utilizes recent technological advances, including newly developed products and materials as well as new applications of existing products and materials. It also recognizes modern building design and construction features dealing with the occupancy and/or use of the building and addresses potential hazards and/or benefits which accompany those factors. Changes have also been made in this edition of the UFC which provide clarification of code requirements from previous editions and certain provisions have been deleted when it has been found that those provisions are ineffective or obsolete. In addition the UFC is designed as a "companion" document to the Uniform Building Code which has been adopted by the Commissioner of Administration as the state building code pursuant to Minnesota Statutes, section 16B.61.

**7510.3330. Article 2.** (Formerly 7510.3140) Paragraphs (a) and (b) of subpart 1 contain identical wording as in the previous amendments. A paragraph is being moved from this subpart to the definitions section. (see part 7510.3350, subpart 4).

Subpart 3 deals with requirements for investigation of fires. This language is unchanged from the previous edition and is consistent with the requirements found in Minnesota Statutes, section 299F.04.

Subpart 4 deals with requirements for Service of Orders & Notices and is an editorial change based on renumbering and reformatting of the UFC.

Subpart 6 deletes a reference to UFC Standard #82-1 which deals with Liquefied Petroleum (L.P.) Gases. This standard is replaced by another nationally recognized standard for L.P. gases (see rule part 7510.3460).

Subpart 8 adopts certain nationally recognized codes and standards and makes them part of the Minnesota Uniform Fire Code. The first code adopted in this section is the 1991 edition of the National Fire Protection Association (NFPA) Standard #101 which is also known as the Life Safety Code. NFPA #101 and other NFPA standards have

been adopted as part of the MUFC since its adoption in 1975. An amendment has been placed in this section which would prohibit enforcement of certain provisions of NFPA #101 which are more restrictive than the State Building Code. This amendment was designed to comply with the legislative intent of Minnesota Statutes, section 299F.011, subdivision 4.

NFPA Standard #101 also includes a reference to 52 other commonly used NFPA standards. Most of these standards are technical in nature and address unique fire safety standards, particularly fire protection equipment such as extinguishing equipment and alarm systems. The UFC is generally known as a performance code which requires a certain degree of protection. The NFPA standards are generally known as technical codes which outline how a particular fire safety feature should be installed, operated, or maintained. These NFPA standards augment the UFC by providing reasonable safeguards against loss of life and property by fire.

Subpart 9 creates a new section 2.304 (d) of the MUFC which deals with the provisions of protection for detention and correctional facilities. This section references Appendix Chapter 10 of the 1991 edition of the Uniform Building Code. The Uniform Building Code is a nationally recognized standard and Appendix Chapter #10 deals with the unique fire safety requirements in these types of facilities. These requirements are consistent with fire safety requirements utilized in detention and correctional facilities throughout the United States and parallel requirements that the State Fire Marshal has been enforcing from the Life Safety Code in these facilities since April of 1983.

**7510.3340. Article 4.** (Formerly 7510.3150) Subpart 2 contains minor editorial changes to the wording; no new requirements are incorporated.

**7510.3350. Article 9.** (Formerly 7510.3160) Various definitions are added and others are retained or amended to adapt the code to the state of Minnesota, its laws, and other related codes or rules, such as the State Building Code and Department of Human Services rules.

Subpart 3 amends the definition of Building Code and references the statute under which it is adopted.

Subpart 4 defines "chief" or "chief of the fire department" and is being moved from a general section of the previous edition of the code to the definitions section where it more appropriately belongs (see part 7510.3330).

Subparts 8 and 9 are new definitions for "jurisdiction" and "jurisdictional area" which are being added at the request of the revisor of Statutes to define and clarify the use of these terms in other definitions (primarily "chief" definition found in 7510.3350, subpart 4).

Subpart 10 amends the definition of Mechanical Code and references the statute under which it is adopted.

Subpart 13 is amended by renumbering the existing exception and adding two new exceptions which incorporate language from Minnesota Statutes, section 144.50, dealing with "supervised living facilities" under the definitions of the Department of Health and the Department of Human Services.

Subpart 14 adds language to the definitions of Group R, Division 1, and Group R, Division 3, occupancies to cross-reference them with the "supervised living facilities" definitions found in Minnesota Statutes, section 144.50, and part 7510.3350, subpart 13 (above).

**7510.3360. Article 10.** (Formerly 7510.3170) Subparts 1, 2, 4, and 5 contain the same requirements from the previous edition of the state fire code. The only changes are numbering changes due to reformatting and renumbering of the UFC.

Subpart 3 references the 1991 edition of National Fire Protection Association (NFPA) Standard #13 or the 1991 edition of Uniform Building Code Standard #38-1 dealing with the installation of automatic sprinkler systems. This change is necessary because the NFPA standard has been substantially modified to utilize new technologies based on fire testing and scientific data. In addition this standard was completely reformatted with substantial language and definitional changes. The existing language references the 1991 edition of Uniform Building Code Standard #38-1 which adopts the 1989 edition of NFPA Standard #13. This change allows the design professional to utilize the appropriate standard (UBC Std. #38-1 or NFPA #13) for design purposes. If this standard is not adopted, fire service professionals will be required to utilize a previous edition of the standard for sprinkler systems which will

be different from fire protection designers and insurance industry representatives who will be using the 1991 edition of this standard.

Subpart 6 is added to be consistent with the requirements found in the State Building Code. The changes also address the renumbering of Article #10.

**7510.3370. Article 11.** (Formerly 7510.3180) Subparts 1 and 2 are editorial changes due to the reformat and renumbering of this article of the UFC. The requirements and wording do not change; the only change is to the numbering.

Two subparts of the previous edition are being moved from this part to other sections of the code (formerly 7510.3180, subparts 1 and 4). The explanations for these changes can be found in parts 7510.3390 and 7510.3280, subpart 9.

**7510.3380. Article 12.** (Formerly 7510.3190) Subparts 1 and 3 are editorial changes due to reformat and renumbering of the UFC. The requirements do not change; the only change is to the numbering of the section.

Subpart 2 is a change from the exit requirements of the UFC which permits egress control devices on exit doors of school buildings. This is a necessary change based on security concerns of many school districts. This section allows exit doors to be equipped with electronic devices which will hold the door in a closed and secured position during normal conditions. Under emergency conditions, such as activation of the fire alarm system or automatic sprinkler system, the devices will release allowing the doors to be readily used for exit purposes. This section would reference a new appendix chapter which would contain some very specific criteria for the use of these devices. This proposal would require the school district to make application to the fire chief (or State Fire Marshal) and prove legitimate security concerns through the application process. This change references a new appendix chapter (II-H) which addresses the individual requirements which would have to be met for these devices to be installed. Based on legislation passed during the 1990 session, the State Fire Marshal is mandated to inspect public schools and also is specifically empowered to authorize variances for fire code issues dealing with existing schools. It was felt that the inclusion of this amendment into the code is consistent with statutory language dealing with the adoption of the fire code and the State Fire Marshal's authority as it relates to existing school facilities. See related changes in Minnesota Rules, part 7510.3480, subpart 10.

**7510.3390. Article 13.** (Requirements transferred from 7510.3180, subpart 4) These requirements have been relocated from a different article in the previous edition. Article #13 of the UFC is a new article dealing with general emergency procedures such as false alarms and fire exit drills. This language previously appeared in Article #11 which deals with general fire safety precautions. This language is consistent with wording found in Minnesota Statutes, section 609.686.

**7510.3400. Article 14.** (Formerly 7510.3200) The existing exception is amended so that fire alarm systems are not required in motel, hotel, and apartment occupancies which are two stories or less in height, have fire separations between each unit, and have exits directly to the exterior. This amendment adds exterior stairway and exterior exit balconies to the list of exit features which constitute exits directly to the exterior. What this amendment does is to exempt one and two story motels, hotels, and apartments with an exterior exit system from having to install a fire alarm system. If not amended this would require the installation of fire alarm equipment which would have to be provided on the outside of the building. This equipment would be subject to vandalism and adverse weather conditions and would do little, if anything, to improve fire safety for the building's occupants who have only to leave their unit through an exterior door to reach safety (the outside of the building). The proposed language has been in the UFC for several years.

**7510.3420. Article 61.** (Formerly 7510.3220) This is an editorial change based on the reformatting and renumbering of the UFC. The requirements do not change; the only change is to the numbering of the section.

**7510.3430. Article 77.** (Formerly 7510.3230) Subparts 1 and 2 reflect editorial changes based on the reformatting and renumbering of this article.

**7510.3440. Article 79.** (Formerly 7510.3240) Subpart 3 incorporates a revision to the MUFC dealing with the amounts of flammable and combustible liquids which are permitted to be stored in retail sales occupancies. This

article underwent a major change during the UFC code change process which radically changed these requirements to the detriment of those occupancies which are impacted by this change. This article is being revised for the next edition of the UFC (1994 edition). The amendment, as written, would return the storage amounts to those in previous editions of the code. This is reasonable based on the fact that there is very limited negative fire history in these types of occupancies relating to the storage of flammable and combustible liquids. This is probably due to the difficulty in igniting the contents when stored in sealed containers. Whereas these requirements are going to be changed in the next UFC edition and there is limited fire history, it is proposed that the existing requirements remain intact rather than impose new requirements on the affected businesses only to change these requirements again in the next few years.

Subpart 4 adds an exception which permits the refueling of motor vehicles from a tank vehicle designed for such purposes. Previous editions of the UFC permitted this practice, however this edition no longer allows it based on concerns that this type of operation circumvents dispensing operations and their related safeguards. There are businesses in Minnesota whose operation is based on providing this service to companies, primarily fleet operations. By allowing the UFC language to remain unchanged, this code adoption would have had a negative impact on small business which is not consistent with the legislative intent of Minnesota Statutes, section 14.115.

This operation is permitted for Class II liquids (diesel fuel, fuel oils, etc.); it is not permitted for flammable liquids, such as gasoline, which are much more volatile and present extreme fire hazards. There are four conditions under which this type of operation is permitted. These are essentially the same conditions which were present in the previous code editions.

Subpart 5 contains requirements which deal with aboveground storage and dispensing of flammable and combustible liquids. To a large part these requirements are merely a reformatting and renumbering change, although they also incorporate some new provisions. The change to item 3 of this subpart removes an option for installing an intermediate tank and related valving arrangements in lieu of supplying fuel from the top of the tank. This was an option placed as an amendment in the fire code during the last adoption of the MUFC to deal with a certain type of tank where the delivery of fuel from the top of the tank with an approved antisiphon system was not believed to be possible due to the height of the tank. During the past year, only 3 of the 70 aboveground dispensing operations installed in the state utilized this arrangement. Advances in equipment design have made this option unnecessary.

The changes to item 4 of subpart 5 eliminate the requirements for approved leak detection and excess flow valves for the piping between the tank and the dispensers. It was found that the leak detection was very difficult and expensive to achieve and that the excess flow valves were not manufactured or available. These features have been replaced by requirements that the piping be completely enclosed in an approved secondary containment system. The secondary containment will provide a reasonable alternative to the leak detection requirements. Secondary containment has been recognized by many regulatory agencies, such as the Environmental Protection Agency as a means of protecting against the unwanted release of product. In essence an additional safeguard against leakage is provided by installing secondary containment protection and the technology is readily available and commonly installed. The removal of the requirements for excess flow valves was needed as these devices are not available for use with these types of operations. This requirement was placed in the MUFC during the last state update (in 1989) and has never been enforced due to the lack of availability of these devices. Therefore, this deletion impacts few, if any, existing installations.

Item 10 of subpart 5 updates the referenced document for lightning protection from the 1986 to the 1989 edition of the National Fire Protection Association Standard number 78. The updated edition of this standard is consistent with the edition years of other referenced documents of the MUFC.

Item 11 of subpart 5 increases the distance between the tank and public ways, combustible buildings (which would be negatively impacted by a fire incident involving the tank), building openings (such as doors and windows which would allow fire spread into an otherwise protected building), and from combustible storage (which could allow a fire to spread from the combustible materials to the tank and substantially increase the severity of the incident). This item then makes an exception for those installations where there is a distance separation of at least 30 feet between the tank and dispenser. Aboveground dispensing creates two potential hazards; one being the dispensing operation itself, where flammable vapors are being released to the atmosphere where they can be readily ignited. The second potential hazard relates to the tank and storage of large quantities of flammable or combustible

liquids. By placing a reasonable separation distance between the two potential hazards, the requirements for separation to public ways, combustible buildings, building openings, and combustible storage would be allowed to be reduced to 30 feet.

Item 12 of subpart 5 involves new language which allows small scale dispensing of flammable and combustible liquids from a tank with a dispenser (pump) mounted directly on top of or adjacent to the tank. In the previous edition of the fire code, there were requirements for distance separation between the dispenser and the pump. Dispensing of flammable liquids, such as gasoline, are allowed from a pump installed on or adjacent to a tank with a capacity of 300 gallons or less. Dispensing of combustible liquids, such as diesel fuel or kerosene, are allowed from dispensing devices mounted on or adjacent to tanks of 1000 gallon size or less. These installations are intended for use at facilities where there are trained, qualified personnel conducting the dispensing. They are not intended for use in areas where the general public is present and could be negatively impacted by a leak or fire incident. The storage capacities were based on common, readily available tank sizes and computerized modeling which shows that a leak and subsequent fire at these operations could be reasonably managed.

Subparts 6 and 7 are editorial changes due to reformatting and renumbering of certain sections of the UFC. These subparts contain no new requirements.

**7510.3450. Article 80.** (Formerly 7510.3250) This section incorporates administrative or editorial changes based on the updated edition of the referenced standard, renumbering of the affected sections, and a change in the identification numbering system used in the federal Superfund Amendments and Reauthorization Act of 1986, Public Law Number 99-499. This change provides consistency with the federal regulations.

**7510.3460. Article 82.** (Formerly 7510.3260) This amendment deletes Article 82 of the UFC dealing with Liquified Petroleum (L.P.) gases and replaces it with another nationally recognized standard. The standard adopted by reference is the 1992 edition of National Fire Protection Association (NFPA) Standard Number 58 which is titled "Standard for the Storage and Handling of Liquified Petroleum Gases". This change is strongly desired by representatives of the LP gas industry who specifically requested that this change be made.

In the previous edition of the MUFC, UFC Standard No. 82-1 was adopted. Std. 82-1 is essentially a reprint of NFPA Standard 58; the 1991 UFC Standards adopt the 1989 edition of NFPA Standard No. 58. Industry representatives have requested the 1992 edition of NFPA Standard No. 58 as it is the most current edition available and allows for the use of some new materials and methods. By adopting UFC Standard 82-1 or a previous edition of NFPA Standard No. 58, the use of these new materials and methods would not be permitted.

Subsection (b) contains thirteen amendments to N.F.P.A. Standard No. 58. These changes are necessary to modify this standard to make it consistent with the laws, codes, and standards adopted or enforced in Minnesota. Items 1, 4, 5, 6, 7, 8, 9, and 12 amend NFPA Standard No. 58 to make it consistent with other codes and standards adopted by the State Fire Marshal and other regulatory agencies, particularly the State Building Codes and Standards Division and the State Board of Electricity. If these changes are not made, conflicts would be created between the fire code and other state codes (Building Code, Electrical Code) and within the fire code itself.

Item 2 deletes section 1-6 of NFPA Standard No. 58. This section requires training and certification of all persons employed in the handling of LP gases. Adoption of this section would have major financial impact on small businesses throughout the state and the agencies who would be enforcing the code (State Fire Marshal and local fire authorities). For obvious safety reasons, the State Fire Marshal is in favor of proper training of persons who handle LP gases but is not in a position to enforce these provisions at this time. Items 10 and 11 are changes to the requirements for qualification of personnel who transfer or handle LP gases. These sections contain references to section 1-6 of this standard which is repealed in item 2 above. The language in items 10 and 11 delete the reference to section 1-6 and contain generic language requiring that personnel engaging in transfer of LP gases must be trained. These changes permit industry and business to establish the training criteria for their employees and do not mandate a statewide training, testing, or certification program.

Items 3 and 13 delete the reference to specific standards which are adopted by the respective sections of NFPA Standard No. 58. Most of these references are to other NFPA Standards which may differ from other codes and standards which are adopted in Minnesota. If these changes are not made, the MUFC would be adopting these standards by reference which could create conflicts with other codes and standards.

The last two paragraphs of this subpart (numbered 82.102 and 82.103) contain language which is being carried forward from the previous edition of the MUFC.

**7510.3470. Article 85.** (Formerly 7510.3270) This is an editorial change based on the reformatting and renumbering of the UFC; it contains no new requirements.

**7510.3480. Amendments To Appendices.** (Formerly 7510.3280) Subpart 1 adopts a new appendix chapter (II-H) which is addressed in subpart 9 of this rule part.

Subpart 2 amends the title of this article to be consistent with the changes made in subpart 3 of this rule part.

Subpart 3 accomplishes two objectives; the first change deletes an exception for high rise occupancies which will make this article applicable to high rise occupancies. In the Uniform Fire Code, there are two separate appendix chapters dealing with life safety issues in existing buildings, one for all types of buildings (Appendix I-A) and one specifically for high rise buildings (Appendix I-B). Appendix I-B has never been adopted in Minnesota, however, Appendix I-A has been adopted for the past few updates of the MUFC. By incorporating high rise buildings into Appendix I-A, the same life safety items are made applicable to these buildings which are enforced in non-high rise buildings. In essence this creates one set of fire and life safety standards in existing buildings, whether they are high rise buildings or non-high rise buildings.

The other change to subpart 3 makes occupancy separations applicable to Group R, Division 3, occupancies (one and two family dwellings). For years the SBC has required fire-rated separations between residences and attached garages to protect the occupants from fires originating in an attached garage, which is a common area of origin. This provision allows the fire official to enforce the fire-rated separation in existing residential occupancies, which are commonly found to be lacking in family and group family day care facilities located within existing single family homes.

Subpart 6 adds an additional exception to the requirements for fire-rated exit corridors in existing school buildings. The requirements and the exception found in this section have been in the MUFC for the past few adoptions. The inclusion of this exception would allow an automatic fire alarm system with smoke detection throughout the exit system which is connected to an alarm monitoring station in existing schools which do not meet the requirements for fire-rated exit corridors or automatic sprinkler protection. One reason for this change is the lack of schools in the state which could comply with the present requirements (as found in the UFC). In 1990 the State Fire Marshal Division was mandated by the legislature to inspect all public school facilities in the state. Out of 660 school buildings which were inspected, 489 (or 74%) of the buildings lacked the fire-rated corridors or automatic sprinkler protection throughout as required by the UFC. Most of these buildings were constructed prior to the adoption of the SBC in 1972 and do not meet the fire-rated corridor requirements. Even some school buildings constructed since the adoption of the SBC were found to not comply.

Many school buildings were constructed with a ventilation system which utilizes the exit corridor system as an integral part of their air flow. If the fire-rated corridor requirements were to be aggressively enforced, most of the schools would have to completely replace the building's heating and ventilation systems. In addition major construction modifications would be needed to the interior corridor network. In addition almost all of the doors in these building's would have to be replaced or upgraded to meet the code requirements. The fiscal impact of these requirements would be immense, ranging from tens of thousands to hundreds of thousands of dollars per building.

The existing language of the UFC allows an alternative to the fire-rated corridors with the installation of an automatic sprinkler system throughout the building. While automatic sprinkler protection is very effective and is supported by many fire officials, this is not a reasonable alternative for many schools which are located in rural areas or otherwise lack availability to an adequate water supply.

An automatic fire alarm system with smoke detection throughout the exit corridor system which is connected to central alarm monitoring location provides a cost-effective option to fire-rating the corridors or sprinklering the building. The smoke detection will provide early warning prior to the exit corridor system becoming untenable. Based on the fact that school occupants are awake, alert, and frequently rehearse fire evacuation procedures, this

option provides a reasonable level of life safety.

In addition to the life safety benefits of corridor smoke detection, the requirements for connection of the fire alarm to a central alarm monitoring station also provide an increased level of property protection. Fire officials would become aware of fire conditions in the school during after-hours or unoccupied periods of time which are common times for school fires to start and spread undetected. Recent fires in unoccupied school buildings have underscored the potential advantages of this requirement. The most notable of these was a fire in November of 1991 in Newfolden, Minnesota, which destroyed a secondary school building and did approximately \$5 million in damage. The fire burned undetected for several hours before finally being observed by neighbors at about 4:30 a.m. Had this building been equipped with an alarm system which was monitored at a remote location, it is almost certain that the fire would have been detected in its early stages and would have done substantially less damage.

Subpart 7 deals with a requirement for providing sprinkler protection for basements and windowless buildings when such areas do not have windows or similar openings. This appendix chapter establishes minimum fire safety provisions in existing buildings and, as written, does not allow the fire official to deviate downward from these "baseline" requirements. As stated in the general section of this appendix chapter, "The purpose of this appendix is to provide a reasonable level of safety to persons occupying existing buildings by providing for alterations to such existing buildings *which do not conform with the minimum requirements of this code.*" (emphasis added). In essence this chapter establishes minimum fire and life safety requirements for existing buildings.

The provisions in question require that all buildings or areas, particularly basements, over 1500 square feet in size must have openings (such as windows or doors) or must be provided with automatic sprinkler protection throughout the building. This chapter, as written, does not allow for deviation from one of those two requirements. Either of these requirements is very expensive and oftentimes difficult to achieve and, as such, this provision is rarely enforced by fire officials. The State Fire Marshal feels that adoption and enforcement of this provision would have negative financial impact on small businesses and would not be consistent with the legislative intent of Minnesota Statutes, section 14.115 (Small Business Considerations).

Discussions have been held with various fire service groups on dealing with this issue. Options such as amending this section to allow for other alternatives or leaving this article as written were explored and it was decided to delete this section of the UFC. This decision was based on the fact that identical requirements can be found in the body of the UFC (in Article #10) for use in situations where the building is undergoing a change in use or occupancy, reconstruction, or where the fire official determines that a distinct hazard exists. By enforcing the provisions from Article #10, the fire official is allowed to utilize alternate materials and methods to satisfy the intent of the UFC pursuant to Section 2.301, an option which is not provided for in the appendix chapter. This change allows the fire official to enforce these provisions (or a reasonable alternative) when a distinct hazard is noted but does not mandate the fire official to enforce these provisions in all existing buildings. This will allow the fire official to enforce an adequate level of fire safety in those situations where it is needed and yet not have to consider the increased liability of not enforcing a provision of the UFC which is written but difficult to achieve and rarely applied.

Subpart 8 clears up confusion which was created at the last adoption of the MUFC. At that time a modification was made to the language which required the installation of standpipes in buildings of three or more stories in height when required by the chief. What this change did was make this requirement an option subject to the desires of the fire chief and did not provide guidance to the fire chief or provide for uniform enforcement from jurisdiction to jurisdiction. The new language will require standpipes when the building is more than four stories in height and allow the chief to determine if they are needed in buildings which are three or four stories in height. This language provides guidance to the fire official and is more consistent with the standpipe requirements found in Article #10 of the UFC and in the SBC. It also allows the fire official to make decisions as to retroactive application of this provision based on the firefighting capabilities and resources available in the affected jurisdiction.

Subpart 9 contains requirements for barbecues on balconies and decks of multiple residential buildings, particularly apartment buildings. These requirements have been moved from Article #11 of the previous edition of the MUFC. In that edition these provisions were to be enforced "when required by the chief" making the enforcement of this item a discretionary decision. By moving this section to an appendix chapter, removing the discretionary language "when required by the chief", and not adopting this appendix on a statewide basis, the local jurisdiction is given the option of not adopting this appendix, adopting it as written, or modifying it to suit its individual needs. Some

fire officials were concerned that by having these requirements in Article #11, the fire official was not given the latitude to deviate from these minimum requirements, particularly in situations where the fire official did not feel that the situation posed a fire problem, such as in the case of apartment buildings of non-combustible construction.

Subpart 10 creates a new appendix chapter to deal with the requirements for egress control devices which are addressed in Minnesota Rules, part 7510.3380, subpart 2. This appendix outlines the specific requirements which have to be met to allow the installation of these devices. Requirements include release upon activation of automatic fire sprinklers or alarm equipment, manual override, power failure release, emergency lighting, and testing intervals. These requirements are necessary to allow this alternate method of securing doors so that they will function under emergency conditions.

Conclusion

Based on the foregoing, the Department of Public Safety-State Fire Marshal Division's proposed rules are both necessary and reasonable.

21 April 1993  
Date

Michael S. Jordan  
Michael S. Jordan, Commissioner  
Department of Public Safety

4/20/93  
Date

Thomas R. Brace  
Thomas R. Brace, State Fire Marshal