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Proposed Rules

governed by *Minnesota Statutes*, section 14.14 to 14.20 and by *Minnesota Rules*, parts 1400.0200 to 1400.1200. Questions about procedure may be directed to the Administrative Law Judge.

The proposed rule establishes minimum uniform rules for the State of Minnesota by adopting the model code, namely, the *Uniform Mechanical Code*, *1988 Edition*, and making amendments to it in order to be consistent with *Minnesota Statutes* and laws and rules promulgated by other state agencies, as well as to address building safety concerns specific to the State of Minnesota.

The agency's authority to adopt the proposed rules is contained in Minnesota Statutes, section 16B.61.

Adoption of these rules will not result in additional spending by local bodies in excess of \$100,000 per year for the first two years following adoption under the requirements of *Minnesota Statutes*, section 14.11.

It is felt by the Building Codes and Standards Division that the proposed rules will not have an impact on small business as defined in *Minnesota Statutes*, section 14.115, division 1, and pursuant to *Minnesota Statutes*, section 14.115 subdivision 2, methods were considered to reduce the potential impact of the proposed rules on small business.

Copies of the proposed rules are now available and one free copy may be obtained by writing to:

Margaret White Building Codes and Standards Division 408 Metro Square Building 7th and Robert Streets St. Paul, Minnesota 55101

Additional copies will be available at the hearing. If you have any questions on the content of the rule you may contact Margaret White, Elroy Berdahl, or Alvin Kleinbeck at (612) 296-4639.

NOTICE: A person may request notification of the date on which the Administrative Law Judge's report will be available, after which date the agency may not take any final action on the rules for a period of five working days. If you desire to be notified, you may so indicate at the hearing. After the hearing, you may request notification by sending a written request to the Administrative Law Judge. Any person may request notification of the date on which the rules were adopted and filed with the secretary of state. The notice must be mailed on the same day the rules are filed. If you want to be so notified you may so indicate at the hearing or send a request in writing to the agency at any time prior to the filing of the rules with the secretary of state.

• NOTICE IS HEREBY GIVEN that a Statement of Need and Reasonableness is now available for review at the agency and at the Office of Administrative Hearings. The Statement of Need and Reasonableness includes a summary of all the evidence and argument which the agency anticipates presenting at the hearing justifying both the need for and reasonableness of the proposed rules. Copies of the Statement of Need and Reasonableness may be reviewed at the agency or the Office of Administrative Hearings and copies may be obtained from the Office of Administrative Hearings at the cost of reproduction.

Minnesota Statutes, Chapter 10A, requires each lobbyist to register with the State Ethical Practices Board within five days after he or she commences lobbying. A lobbyist is defined in *Minnesota Statutes*, section 10A.01, subdivision 11, as any individual:

a) engaged for pay or other consideration, or authorized by another individual or association to spend money, who spends more than five hours in any month or more than \$250.00, not including travel expenses and membership dues, in any year, for the purpose of attempting to influence legislative and or administrative action by communication or urging others to communicate with public officials;

b) who spends more than \$250.00, not including his own traveling expenses and membership dues, in any year, for the purpose of attempting to influence legislative or administrative action by communicating or urging others to communicate with public officials.

The statute provides certain exceptions. Questions should be directed to the Ethical Practices Board, 625 North Robert Street, St. Paul, Minnesota 55101, telephone (612) 296-5148.

Dated: 14 December 1989

Dept. of Administration - MN State Building Code

Sandra J. Hale, Commissioner Department of Administration

Statement of Need and Reasonableness

The above-captioned proposed rules are changes in Chapter 1345 of the Rules promulgated as the *Minnesota State Building Code* known as the "Heating, Ventilating, Air-Conditioning (HVAC), and Refrigeration Rule," referenced Rules 1345.0010 through 1345.3300 as in effect on April 8, 1985 and reprinted June 1987.

Under *Minnesota Statute*, Section 16B.61, the Commissioner of Administration is charged with the responsibility of promulgating the *Minnesota State Building Code*. The Code must conform insofar as practicable to recognized national model building codes generally accepted and in use throughout the United States. Also, model codes with necessary modifications and statewide specialty

Comments or requests for a public hearing must be received by the Department of Administration, Building Codes and Standards Division, by 4:30 p.m. on January 31, 1990.

The proposed rule may be modified if the modifications are supported by data and views and do not result in a substantial change in the proposed rule as noticed.

A free copy of this rule is available on request for your review from Margaret White.

The proposed rule establishes minimum uniform rules for the State of Minnesota by adopting a model code, namely, the *Uniform Mechanical Code*, *1988 Edition* and making amendments to it in order to be consistent with *Minnesota Statutes* and laws and rules promulgated by other state agencies, as well as to address building safety concerns specific to the State of Minnesota.

A STATEMENT OF NEED AND REASONABLENESS that describes the need for and reasonableness of each provision of the proposed rule and identifies the information relied on to support the proposed rule has been prepared and is available from Margaret White on request.

It is felt by the Building Codes and Standards Division that the proposed rules will not have an impact on small business as defined in *Minnesota Statutes*, section 14.115, division 1, and pursuant to *Minnesota Statutes*, section 14.115 subdivision 2, methods were considered to reduce the potential impact of the proposed rules on small business.

Adoption of these rules will not result in additional spending by local bodies in excess of \$100,000 per year for the first two years following adoption under the requirements of *Minnesota Statutes*, section 14.11

If no hearing is required on adoption of the rule, the rule and the required supporting documents will be delivered to the Attorney General for review as to legality and form to the extent the form relates to legality. Any person may request notification of the date of submission to the Attorney General. Persons who wish to be advised of the submission of this material to the Attorney General, or who wish to receive a copy of the adopted rule, must submit the written request to Margaret White.

Dated: 14 December 1989

Sandra J. Hale, Commissioner Department of Administration

Notice of Hearing and Notice of Intent to Cancel Hearing if Fewer than Twenty-five Persons Request a Hearing in Response to Notice of Intent to Adopt Rules without a Public Hearing

NOTICE IS HEREBY GIVEN that a public hearing on the above-entitled matter will be held on February 2, 1990 at the Sheraton Airport Hotel, 2525 East 78th Street, Bloomington, Minnesota 55425, commencing at 9:00 a.m. and continuing until all interested or affected persons have an opportunity to participate. The proposed rules may be modified as a result of the hearing process. Therefore, if you are affected in any manner by the proposed rule, you are urged to participate in the rule hearing process.

PLEASE NOTE HOWEVER, that the hearing will be cancelled if fewer than twenty-five persons request a hearing in response to the notice of intent to adopt these same rules without a public hearing published in this *State Register* and mailed to persons registered with the department of administration, building codes and standards division. To verify whether a hearing will be held, please call the Building Codes and Standards Division between 8:00 a.m. and 4:30 p.m., on February 1, at (612) 296-4626.

Following the agency's presentation at the hearing, all interested or affected persons will have an opportunity to participate. Such persons may present their views either orally at the hearing or in writing at any time prior to the close of the hearing. All evidence presented should be pertinent to the matter at hand. Written material not submitted at the time of the hearing which is to be included in the hearing may be mailed to Steve M. Mihalchick, Administrative Law Judge, Office of Administrative Hearings, 310 Fourth Avenue South, Minneapolis, Minnesota 55415; telephone (612) 349-2544, either before the hearing or within five working days after the public hearing ends. The Administrative Law Judge may at the hearing, order the record be kept open for a longer period not to exceed 20 calendar days. The comments received during the comment period shall be available for review at the Office of Administrative Hearings. Following the close of the comment period the agency and all interested persons have three business days to respond in writing to any new information submitted during the comment period. During the three-day period, the agency may indicate in writing whether there are amendments suggested by other persons which the agency is willing to adopt. No additional evidence may be submitted during the three-day period. The written responses shall be added to the rulemaking record. Upon the close of the record the Administrative Law Judge will write a report as provided for in *Minnesota Statutes*, sections 14.15 to 14.50. The rule hearing is

codes may be adopted by reference. It is the duty of the commissioner to amend the *Minnesota State Building Code* to maintain the most modern code standards regarding minimum safeguards of life, limb, health, property and public welfare together with regulating and controlling the design, construction, quality of materials, use and maintenance of buildings and structures. *Minnesota Statutes* 16B.59 states that "the construction of buildings should be permitted at the least possible costs consistent with recognized standards of health and safety."

Chapter 1345 of the *Minnesota State Building Code* was first published as a part of the *Minnesota Building Code* in its inception in 1972 known as SBC 7101 to SBC 8505. This HVAC CODE was a state proprietary code promulgated in the late 1960's for state owned buildings. There has been no substantive change to the rules since the original adoption to the state code in 1972.

It is the desire of the Minnesota Building Codes and Standards Division to adopt the 1988 Edition of the Uniform Mechanical Code as promulgated by the International Conference of Building Officials, 5360 South Workman Mill Road, Whittier, California 90601, and the International Association of Plumbing and Mechanical Officials, 20001 South Walnut Drive, Walnut, California 91789, with appropriate amendments to satisfy Minnesota climatic and construction needs. It is more cost effective to adopt a model code with limited amendments than to revise an existing proprietary code to bring it into today's standards, therefore, the action taken by these proposed rules will repeal Rules 1345.0010 to 1345.3300 and through proper procedures, adopt the 1988 Edition of the *Uniform Mechanical Code* as amended to be known as Rules 1346.0050 to 1346.2600.

The proposed rules conform as far as practicable to model mechanical codes. The reflect amendments for regional utilization and construction in keeping with the legislative intent of *Minnesota Statutes* Section 16B.61. The proposed amendments provide for added requirements to certain sections, change wording to clarify the intent of application for certain sections, adopt and update to current national model code standards, and language changes requested by the Office of the Minnesota Revisor of Statutes designed to eliminate redundant wording and use of archaic language.

Any business entity with constructs, expands or remodels buildings is required to comply with the *Minnesota State Mechanical Code*. When adopted, these proposed rules become part of the *Minnesota State Building Code* and will be applicable to all future construction. The rules are not applicable to existing mechanical systems structures unless they are declared hazardous and unsafe, or as otherwise modified using guidelines established by Section 104 of the proposed *Minnesota Uniform Mechanical Code*, *1988 Edition*.

The Building Codes and Standards Division 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, subd. 2, for reducing the impact of the rules on small businesses.

The proposed rules do not require businesses to make reports so the requirements for reporting identified in items (a), (b), and (c) are not applicable.

Compliance requirements of items (a), (b), (c), and (e) are not appropriate because the purpose of these rules is to establish a minimum uniform standard for construction of all public, private, commercial, industrial or residential equipment and structures within the State of Minnesota to protect life, limb, health, property, and public welfare of the residents of the state at the least possible cost consistent with recognized standards. *Minnesota Statutes* Section 16B.59 (1984). To exempt small businesses from any or all requirements of the rules would be contrary to the statutory objectives that are the basis of the proposed rulemaking, *Minnesota Statutes*, Section 16B.59, 16B.61, and 16B.64. The legislature has specifically mandated that the uniformity of building standards is in the public interest. *Minnesota Statutes* Section 16B.61, Subdivision 1, Adoption of Code, states in part:

"---The code (and any amendments thereof) must conform insofar as practicable to model building codes generally accepted and in use through the United State.-"

Minnesota Statutes Section 14.115, subd. 2(d) calls for the establishment of performance standards for small businesses as one method of reducing the adverse impact of rules upon them. The code and its amendments are based on the application of scientific principles, approved tests and professional judgement; and to the extent practicable, are in terms or results rather than requiring specific methods or materials. The code uses performance standards wherever possible.

Since the performance standards apply across the board to all entities subject to the code, the methods of reducing the impact of the rules provided by Subdivision 2(d) has been utilized. No special changes are necessary for small businesses.

The Building Codes and Standards Division has evaluated the effects of *Minnesota Statutes*, 3.981 and 3.983 and 14.131 and believe that the promulgation of these proposed rules will not result in the expenditure of additional monies by local public bodies nor have an impact on agricultural land and meets the test of the exceptions to fiscal notes as provided by *Minnesota Statutes* 3.983.

Elroy Berdahl, Supervisor, Consultant Section, and Alvin Kleinbeck, Code Administrator, Consultant Section, of the Building Codes and Standards Division will appear on behalf of the proposed rules at the hearing if a hearing is required. They will testify regarding the need for and reasonableness of the proposed rules. The substance of the testimony is set forth herein.

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The following is the evidence and argument which supports the need for and reasonableness of the proposed rules:

| PAGE 1532 | STATE REGISTER, Tuesday 2 January 1990 | (CITE 14 S.R. 1532) |
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| 1346.0603 Source of Combustion Air Section 603(a) | This change is needed to inform the owner, designer, or contractor that all combustion air is required to be secured from the exterior of the building and prohibits combustion air from being secured from the attic. | |
| 1346.0602 Combustion Air Openings Section 602(a) Location | The changes in this section remove the opening requirements from an intended enclosure around the fuel utilization equipment and require the combustion air to be supplied from the exterior of the structure. It also indicates that the inlet be located above grade so that it has less potential from being sealed off by snow or other obstructions. | |
| 1346.0504 Installation 504(f) | The language of the <i>Uniform Mechanical Code</i> is deleted and reference is made that the requirements for Liquid Petroleum Gas Appliance Section applications and installations must comply with the rules of the Department of Public Safety. | |
| 1346.0403 to 1346.0421 Definitions | A number of definitions have been added in their appropriate sequence to define the terms used in the code. The words or groups of words identifying materials, equipment, systems and processes are needed to help understand the application of the code when these terms are encountered. The definitions are based on <i>Minnesota Statutes</i> , other recognized national documents, and the "state of the art" industry systems or equipment. The definitions should be self explanatory as to their use and application. | |
| 1346.0307 Table 3-A Mechanical Permit Fees Section 307 | This item is repealed because the fee structure is given to the needs of the local government and should not be dictated by the code unless it is applicable. The local government may use the fee schedule published in Section 307 if it chooses to do so by local ordinance. | |
| 1346.0304 Fees Section 304(b) | This section is amended to indicate that the fee structure is to be established by the local government except for the requirements fixed by statute. | |
| 1346.0204 Violations Section 204 | This amendment identifies that any violation of the code is a misdem | neanor under Minnesota Statutes. |
| 1346.0203 Board of Appeals Section 203 | This section is amended to include the requirements of the local Boar the boards finding with the state building inspector. | d of Appeals to file the report of |
| 1346.0201 Powers and Duties of Building Official Section 201(a) | This section is re-worded to provide direction and clarity in the responsibility of local government to apply and enforce the code within the intent and purpose of the <i>Minnesota State Building Code</i> . | |
| 1346.0101 Title Section 101 | This section identified the name of the code and prescribes the sections of the code and appendices that are mandatory for adoption and enforcement, except as modified by the appropriate amendments. | |
| General: | Study of the Uniform Mechanical Code as becoming the mechanical has ensured over the past eight years. The study committee compo- industry, contractors, governmental inspectors and interested citiz changes that are recommended to the body of the Uniform Mechanical needs and construction practices found in Minnesota. The proposed cl ually as to their need for and reasonableness of the requirements that sition of the code. Comments will be made only on those sections the | osed of individuals representing zens have proposed the bulk of <i>al Code</i> as being applicable to the nanges will be addressed individ- will be formulated in the compo- |
| The following is the t | evidence and argument which supports the need for and reasonableness of th | e proposed rules. |

1346.0604 Combustion Air Ducts Section 604

1346.0605 Gravity Type Furnaces Section 605

1346.0606 Special Conditions Created by Mechanical Exhausting or Fireplaces

1346.0607 Area of Openings Section 607

1346.0608 Required air for Equipment Section 608

1346.0706 Return and Outside Air Section 706(d)

1346.0710 Furnaces Installed on Roofs or Exterior Walls of Buildings Section 710(h)

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1346.0807 Room Heaters Section 807

1346.0808 Duct Furnaces Section 808

1346.0809 Infrared Heaters Item #2 is amended to require the size of the combustion air supply to be at least equal to the discharge flue of the appliance served. Dampers for combustion air are generally prohibited by the code. This amendment will allow combustion air to be controlled by dampers if designed in accordance with Section 602(b) of the code. The amendment will also permit other methods to be used when installed in accordance with the manufacturers instructions and approved by the building official.

Items 3 and 6 are repealed because these items are not in keeping with the amended requirements for the installation of combustion air provisions.

This section reinforces the requirement that combustion air is also necessary for gravity type furnaces.

It is necessary to provide combustion air or air for exhausting when other items in the building are operating that discharge air to the exterior—i.e. kitchen exhaust fans, bathroom fans, fireplaces, etc.

This item is amended to provide a ratio of combustion air needed for various sizes of fuel BTU inputs for the proper supply to the utilizing equipment.

This a new section to be added addressing the requirement for providing air for the control and dissipation of heat generated by equipment in various installations in addition to that required for combustion air.

This amendment requires that various dampers are to be provided to balance and control the movement of air within and throughout the system.

The word "readily" is deleted from the test to remove some unnecessary stringent requirements.

This amendment prohibits the use of free standing room heaters in sleeping rooms because of the potential depletion of the oxygen supply in the room.

This amendment provides a standard whereby duct type furnaces may be used. Items (c) and (d) have been repealed because the climatic needs for the State of Minnesota would require a closed room/ building condition and venting of products of combustion are necessary for the physical well-being of the occupants of the structure.

This proposed change provides for the inclusion of Infrared Heaters installed in keeping with N.F.P.A. standards and guidelines and requires that combustion air and makeup air must be provided for each unit.

1346.0906 Vent Termination Section 906

1346.0913 Masonry Chimneys Section 913

1346.1521 Gas Fire Air Conditioners Section 1521

1346.2003 Commercial Hoods and Kitchen Ventilation Section 2003 (i)

APPENDIX B CHAPTER 21 1346.2101 to 1346.2106 Steam and Hot Water Broilers Section 2101 to 2106

1346.2107 Expansion Tanks Section 2107

1346.2108 Safety and Relief Valve Discharge Section 2108

1346.2109 Shutoff Valves Section 2109

1346.2110 Gas Pressure

1346.2111 Low Water Cut-off Section 2111

1346.2113 Automatic Boilers Section 2113

1346.2114 Clearance for Access Section 2114

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This section is reduced in its content by eliminating the mandate for a vent terminus cap unless it is part of the system approval. Experience has shown that some vent caps can deteriorate and collapse to block off the flue and create a potential carbon monoxide situation.

This amendment provides for the type of liner or liners that are permitted when a masonry chimney is to be used for a gaseous fuel.

This amendment provides for identification of the N.F.P.A. standard to be used for the installation of gas air-conditioners.

The amendment changes the requirements to indicate that tempered air must be provided for the makeup air and establishes a minimum temperature at the discharge into the room. The amendment also requires that for compensating hoods, 80% of the make up air must be obtained from the room area to provide for a better discharge of air across the cooking surface of the kitchen equipment.

This chapter is revised to incorporate the terms of low-pressure and low-temperature to the steam and hot-water boiler and piping systems. High pressure systems are regulated by the rules of the Department of Labor and Industry. The first six sections provide for language clarification, equipment inclusion and some definitions used in this chapter only. The changes are necessary to provide for better application and enforcement of the requirements found in this chapter.

The majority of the changes in this section clean up the language provision that a permanently identifying tag must be attached to the valve between the boiler and main and that the tank must be kept open at all times except when draining the tank.

This amendment identifies when and where the safety or relief valve must be used, the size of the valve, and the disposition of the liquid discharged by the system. It is required as a measure of safety for the operation of the system.

This change reinforces the need for shut-off valves in the various equipment and requires that valves must be tested and listed for the use applied.

This section is reduced from the original and amended to indicate that the requirements are found in UMC Chapter 22.

This item is rewritten and amended to provide the requirements of the safety devices to detect when low water levels necessitate shutting down the system.

A new table 21-C is established for the requirements of various controls for the safe and efficient operation of various sizes of equipment. The references found in this section have been revised to identify the requirements provided in the table.

Amendments are made to this section to provide for a more workable clearance to the equipment needing repair and cleaning.

STATE REGISTER, Tuesday 2 January 1990

(CITE 14 S.R. 1534)

1346.2115 Boiler Room Enclosures Section 2115

1346.2120 Fuel Piping Section 2120

1346.2122 Operating Adjustment and Instructions Section 2122

1346.2123 Inspectors Test

1346.2124 Operating Permit Section 2124

1346.2125 Maintenance Inspection Section 2125

1346.2126 Operation and Maintenance of Boiler and Pressure Vessels Section 2126

1346.2127 Steam, Liquid and Piping Systems

1346.2130 Table No. 21-C Section 2130

Chapter 22 1346.2201 Fuel and Gas Piping General Section 2201

1346.2202 Definitions Section 2202 This section is amended to give specific guidelines for the installation of equipment in confined space, alcoves, and closets, and establishes the minimum area of a room housing a boiler.

Chapters 25 and 26 are new additional chapters to the code and each identify fuel piping needs for various fuels. It is necessary to identify in this section that additional requirements for fuel piping is found in their respective chapters.

The amendment emphasizes that the operating instructions for the equipment installed must remain in the job for the owners use.

The amendments to this section are added to emphasize that equipment required to be inspected and tested must be made accessible and secondly that an installation designed and the installation supervised by a design professional may be tested and inspected by that design professional when approved by the Building Official.

This item is repealed because Minnesota does not require an operating permit and there is no current intent to require an operating permit.

The maintenance inspection is based on an operating permit and since the operating permit is repealed there is not need for this section.

This section is repealed because it is used in conjunction with Section 2124 and Section 2125 which are repealed by the adoption of this code, hence this section is not needed.

Changes are made to this section to include the word liquid in lieu of water and expands the application to systems. This section addresses the fact that the Department of Labor and Industry has regulations that could have some cross enforcement situations and this section identifies that is that condition should arise, the Department of Labor and Industry rules must be followed. This section includes a number of items that are changed because of the state of the art uses of materials and the deletion of materials that have been determined to be detrimental to one physical well-being.

Table Number 21-C has been revised to comply with Minnesota code changes and requirement for equipment. The same format is used but information in the matrix and footnotes are based on the Minnesota amendments.

This chapter deals with the requirements of fuel or gas piping supplying fuel to fuel utilization equipment. Changes have been made to clarify the intent and application of this chapter.

Certain definitions have been added to include subject matter that is a part of the code and not otherwise defined in the code. Certain items have been repealed because the item or items defined are not used in the utility supply systems.

KEY: PROPOSED RULES SECTION — <u>Underlining</u> indicates additions to existing rule language. Strike outs indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material." ADOPTED RULES SECTION — <u>Underlining</u> indicates additions to proposed rule language. Strike outs indicate deletions from proposed rule language.

(CITE 14 S.R. 1535)

STATE REGISTER, Tuesday 2 January 1990

1346.2205 Workmanship Section 2205

1346.2206 Inspection and Testing Section 2206

1346.2211 Gas Meter Installation Section 2211(f)

1346.2212 Material for Gas Piping

Section 2212 1346.2213

Installation of Gas Piping Section 2213

1346.2215 Liquefied Petroleum Gas Facilities Piping Section 2215

1346.2216 Leaks Section 2216

1346.2220 High Pressure Gas Piping

Section 2220 346.2221

Tables No. 22-D-2 No. 22-D-3

No. 22-D-4 Section 2221 Chapter 25

1346.2501 Subpart 1

1346.2502 Subp. 2 1346.2503 Subp. 3 1346.2504 Subp. 4 1346.2505

Subp. 5

This amendment allows the support of equipment by the piping system when the manufacturers instructions will allow the suspension.

The amendment to this section describes the procedure for testing the rough piping system of fuel piping. It also addresses the requirement for a final inspection of piping after the equipment is connected to the system. The UMC permission of CO_2 or nitrogen pressure test has been repealed in the Minnesota adoption because of problems that have been experience in its use.

These requirements have been added to the meter location to provide for additional safety.

The amendments made to this section describe what materials may be used if complying to the appropriate standards and deletes materials that are problematic with the nature of the fuel supplied.

This section contains a number of amendments that provide guidance for the installer in the limitations on piping applications including sizing which requires welding for safety reasons, piping limitations in concealed spaces, protection from corrosion to avoid deterioration of the materials, and the requirement for valves and valving to control the distribution of the fuel to each service area. The requirement for a tracer material for nonmetallic pipe has been repealed because the use of non-metallic piping has been repealed for distribution systems.

This section is amended to indicate the additional requirements for Liquefied Petroleum is found in the rules of the *Minnesota State Fire Code*.

The amendment to this section provides for a method of testing for leaks. It also identifies the materials that cannot be used in making the leak tests because of the potential hazards involved. Other adjustments are incorporated for clarity.

This section is amended for clarity of application and identifies that it must be approved by the local Building Official and fuel supplier to determine the availability of high-pressure fuel supply.

These tables of the current HVAC Code provide for gas pipe sizing based on the natural gas supplied by the utilities operating in Minnesota. These tables are appropriate for continued use in the sizing of the distribution lines of the gas piping installation in buildings. The tables that are part of the UMC are not repealed because if the specific gravity of gas being supplied were changes these tables would be applicable. Each supplier establishes the specific gravity of the fuel supplied.

This is a new chapter to Appendix "B" which expands the requirements for the installation, testing, or repair of all gas or fuel burning systems, burners, and equipment. The Mechanical Committee selected to prepare amendments in the adoption of the Uniform Mechanical Code through their deliberations felt that these regulations are necessary for the proper installation, testing, repair and operation of the equipment identified.

This rule identifies recognized national standards that are appropriate in the support of this chapter.

This subpart reaffirms that only approved gas or fuel burning equipment may be installed and used.

This subpart establishes testing processes that must be conducted when placing the equipment into operation in order to assure a safe operation.

This requirement addresses the operation of a pilot light when used in the ignition of fuel being utilized by the equipment.

STATE REGISTER, Tuesday 2 January 1990

(CITE 14 S.R. 1536)

| 1346.2506 Subp. 6 | This section outlines the test for safe and efficient burner operation of the fuel utilization equipment. | |
|--------------------------------------|---|--|
| 1346.2507 Subp. 7 | This subpart prescribes the method of testing appliances when placed into operation to satisfy the proper combustion venting and operation of equipment being placed into service. A tag, identifying the date and name of the person doing the testing, must be attached to the equipment in case further tests must be performed. Also when the final inspection is made and a problem is encountered the person whose name is on the tag can be contacted to assist in resolving the problem. | |
| 1346.2508 Subp. 8 | This part establishes the limits of CO, the required minimum efficiency of the fuel burning equipment and requirement for the use of regulators on gas burning systems or appliances. | |
| 1346.2509 Subp. 9 | This part identifies the minimum equipment that must be a part of the installation of each fuel burning system based on the Btu/h input to the equipment. | |
| 1346.2510 Subp. 10 | This subpart describes the minimum requirements for the identity of appliances with a consumption of over 400,000 Btu/h to be supplied by the contractor when seeking approval for a permit to install such equipment. | |
| Chapter 26 1346.2601 Subpart 1 | This subpart applies to the installation, testing, or repair of oil or fuel burning appliances similar to the requirements of the gas or fuel burning appliance identified in Chapter 25. | |
| Subp. 2 | For the installation of oil burning equipment, certain standards are applicable or identified in Appendix "C" under item "O" listing such standards ANSI, UL, as well as other requirements addressed in the UMC itself. | |
| Subp. 3 | A number of definitions have been added to this subpart to identify and define terms applicable to the installation and operation of oil burning equipment. The definitions are based on national standards such as the National Fire Protection Association (NFPA), American National Standards Institute (ANSI), and Underwriters Laboratories (UL). These definitions are not found in other sections of this code and are specifically directed towards the use and application of oil burning equipment. | |
| Subp. 4 | This part reaffirms that any equipment utilized in the installation and operation of an oil burning unit must meet the approval of the building official prior to installation and operation. It also provides for alternate approvals when special equipment is evaluated by a recognized testing agency and is ultimately installed in keeping with the approved testing and listing. | |
| Subp. 5 | This section indicates the various standards that may be used in the installation and operation of oil burning equipment. It provides that operational testing of the equipment must be done by the installer prior to acceptance and approval by the building official. A detailed process is identified for testing such operation of the equipment that is placed into service to assure a reasonable level of safety in the operation of the equipment. | |
| Subp. 6 | This subpart establishes the criteria which must be met in the performance of the equipment placed into service. The requirements for efficiency, stack temperature, carbon dioxide, oxygen, smoke test of the oil being used, monoxide limits, etc., for the various Btu/h input provided to the equipment. | |
| Subp. 7 | This subpart provides for specific requirements for various valves, controls, and systems to be employed with the installation of equipment based on consumption of products. | |
| | These controls are necessary to provide a reasonable amount of safety in the operation of the equipment. | |
| Subp. 8 | This section places the requirements for the equipment to be identified with a name plate or other process in order to identify the various information necessary to evaluate that the appropriate application of the equipment has been made and provides for the supplying of the wiring, piping, and control system diagrams for assistance in repair, installation, or maintenance of the equipment. | |
| Dated: 14 December 87 | Sandra J. Hale, Commissioner Department of Administration | |

Rules as proposed (all new material)

1346.0050 TITLE; INCORPORATION BY REFERENCE.

This chapter is known and may be cited as the "Minnesota Uniform Mechanical Code." As used in this chapter, "the code" and "this code" refer to this chapter.

Chapters 1 to 20 and appendixes A, B, and C of the 1988 edition of the Uniform Mechanical Code, promulgated by the International Conference of Building Officials, 5360 South Workman Mill Road, Whittier, California 90601 and the International Association of Plumbing and Mechanical Officials, 20001 South Walnut Drive, Walnut, California 91789, are incorporated by reference as part of the Minnesota Uniform Mechanical Code with the amendments in this chapter. As used in this chapter, "UMC" means the Uniform Mechanical Code incorporated in this part.

1346.0201 SECTION 201.

UMC Section 201(a), the second paragraph, is amended to read as follows:

The building official may render interpretations of this code and enforce rules supplemental to this code to clarify the application of this code. The interpretations and rules must conform with the intent and purpose of the Minnesota State Building Code.

1346.0203 SECTION 203.

UMC Section 203(a), the last sentence of the first paragraph, is amended to read as follows:

The board shall adopt rules of procedure for conducting its business and shall render all decisions and findings in writing to the appellant with a duplicate copy to the building official and to the state building inspector within 15 days of the decision.

1346.0204 SECTION 204.

UMC Section 204 is amended by adding a sentence to read as follows:

A violation of this code is a misdemeanor (Minnesota Statutes, section 16B.69).

1346.0304 SECTION 304.

UMC Section 304(b) is amended to read as follows:

(b) Permit Fees. All permit fees must be established by the local authority except in areas outside the enforcement authority of a city. The fee charged for the issuance of permits and inspections for a single family dwelling may not exceed the greater of \$100 or 0.005 times the value of the structure, addition, or alteration (*Minnesota Statutes*, section 16B.62). The fee structure in UMC Table 3-A may be used as a guideline in establishing a fee schedule to be used by the municipality.

1346.0309 TABLE 3-A.

UMC Table No. 3-A, Mechanical Permit Fees, is deleted in its entirety.

1346.0403 SECTION 403.

UMC Section 403 is amended by adding the following definitions:

"Accessible installation" means to be accessible, such as exposed in shafts or tunnels, or concealed by readily removable construction.

"Appliance fuel connector" means an assembly of listed and approved semi-rigid or flexible tubing and fittings to carry fuel between a fuel piping outlet and a fuel burning appliance installed as required by its listing and approved by this code and the building official.

1346.0404 SECTION 404.

UMC Section 404 is amended by adding the following definitions:

"Boiler, high pressure" means a boiler furnishing steam at pressures in excess of 15 pounds per square inch or hot water at temperatures in excess of 250 degrees Fahrenheit, or at pressures in excess of 30 pounds per square inch.

"Boiler, low pressure hot water" or "boiler, low pressure steam" means a boiler furnishing hot water at pressures not exceeding 30 pounds per square inch and at temperatures not more than 250 degrees Fahrenheit, or steam at pressures not more than 15 pounds per square inch.

"Btu" or "British thermal unit" means the amount of energy required to raise the temperature of one pound of water one degree Fahrenheit.

"Btu/h" means the number of Btu's used in an hour.

STATE REGISTER, Tuesday 2 January 1990