Minnesota Department of Labor and Industry

STATEMENT OF NEED AND REASONABLENESS

Proposed Amendment to Rules Governing of the 2012 International Mechanical and Fuel Gas Codes, Minnesota Rules, Chapter 1346; Revisor's ID Number R-04147

INTRODUCTION

On October 26, 2009, the Department amended the rules governing mechanical systems and fuel gas systems by adopting and amending the 2006 editions of the International Mechanical Code (IMC) and International Fuel Gas Code (IFGC), both issued by the International Code Council, Inc. ("ICC"). The Department did not adopt the 2009 editions of the IMC or IFGC because of the drastic slowdown of the construction economy and the lack of technical experts available to assist the Department with the adoption. Since that time, the ICC developed and published the 2012 editions of the IMC and IFGC.

The Commissioner of the Minnesota Department of Labor and Industry proposes to adopt amendments to Minnesota Rules, Chapter 1346, which incorporates by reference the 2012 IMC and the 2012 IFGC. The proposed rules update certain Minnesota mechanical and fuel gas rules to require the most current industry standards and practices.

The Department convened an advisory committee, the Mechanical/Fuel Gas Code Committee ("committee"), and consulted the Construction Codes Advisory Council (CCAC) to update Minnesota's Mechanical and Fuel Gas Codes.[1] A list of committee members can be found in Exhibit A. The committee provided the Department with important information from all areas of the mechanical and fuel gas industries. The committee proposed changes to the 2012 editions of the IMC and IFGC; the proposed changes are reflected in the proposed amendments.

ALTERNATIVE FORMAT

Upon request, this information can be made available in an alternative format, such as large print, braille, or audio. To make a request, contact Colleen Clayton at the Department of Labor and Industry, 443 Lafayette Road North, St. Paul, Minnesota 55155, phone 651-284-5867, and fax 651-284-5749.

STATUTORY AUTHORITY

The Department's statutory authority to adopt the rules is stated in the following Minnesota Statutes:

> **326B.02, Subdivision 5. General rulemaking authority.** The commissioner may, under the rulemaking provisions of chapter 14 and as otherwise provided by this chapter, adopt,

[1] The Mechanical/Fuel Gas Code Committee met on November 30, 2011, December 14, 2011, December 21, 2011, January 4, 2012, January 18, 2012, February 1, 2012, February 15, 2012, and February 29, 2012. The Department consulted the CCAC regarding this rulemaking on June 21, 2012. The "Mechanical and Fuel Gas Codes" refers to chapter 1346.

amend, suspend, and repeal rules relating to the commissioner's responsibilities under this chapter, except for rules for which the rulemaking authority is expressly transferred to the Plumbing Board, the Board of Electricity, or the Board of High Pressure Piping Systems.

326B.13, Subdivision 8. Effective date of rules. A rule to adopt or amend the State Building Code is effective 180 days after publication of the rule's notice of adoption in the State Register. The rule may provide for a later effective date. The rule may provide for an earlier effective date if the commissioner or board proposing the rule finds that an earlier effective date is necessary to protect public health and safety after considering, among other things, the need for time for training of individuals to comply with and enforce the rule.

326B.101. Policy and purpose. The State Building Code governs the construction, reconstruction, alteration, repair, and use of buildings and other structures to which the code is applicable. The commissioner shall administer and amend a state code of building construction which will provide basic and uniform performance standards, establish reasonable safeguards for health, safety, welfare, comfort, and security of the residents of this state and provide for the use of modern methods, devices, materials, and techniques which will in part tend to lower construction costs. The construction of buildings should be permitted at the least possible cost consistent with recognized standards of health and safety.

326B.106, Subdivision 1. Adoption of code. Subject to sections 326B.101 to 326B.194, the commissioner shall by rule and in consultation with the Construction Codes Advisory Council establish a code of standards for the construction, reconstruction, alteration, and repair of buildings, governing matters of structural materials, design and construction, fire protection, health, sanitation, and safety, including design and construction standards regarding heat loss control, illumination, and climate control. The code must also include duties and responsibilities for code administration, including procedures for administrative action, penalties, and suspension and revocation of certification. The code must conform insofar as practicable to model building codes generally accepted and in use throughout the United States, including a code for building conservation. In the preparation of the code, consideration must be given to the existing statewide specialty codes presently in use in the state. Model codes with necessary modifications and statewide specialty codes may be adopted by reference. The code must be based on the application of scientific principles, approved tests, and professional judgment. To the extent possible, the code must be adopted in terms of desired results instead of the means of achieving those results, avoiding wherever possible the incorporation of specifications of particular methods or materials. To that end the code must encourage the use of new methods and new materials. Except as otherwise provided in sections 326B.101 to 326B.194, the commissioner shall administer and enforce the provisions of those sections.

Under these statutes, the Department has the necessary statutory authority to adopt the proposed rules.

REGULATORY ANALYSIS

Minnesota Statutes, section 14.131, sets out eight factors for a regulatory analysis that must be included in the SONAR. Paragraphs (1) through (8) below quote these factors and then give the agency's response.

"(1) a description of the classes of persons who probably will be affected by the proposed rule, including classes that will bear the costs of the proposed rule and classes that will benefit from the proposed rule"

The classes of persons who probably will be affected by the proposed rules include municipal building officials, engineers, architects, building contractors, mechanical contractors, mechanical system product manufacturers, building owners and managers and the general public.

Those that will likely bear the costs of the proposed rules are building owners.

Those that will likely benefit from the proposed rules include building owners, building managers and the general public by providing the most efficient methods and current materials for mechanical and fuel gas systems.

"(2) the probable costs to the agency and to any other agency of the implementation and enforcement of the proposed rule and any anticipated effect on state revenues"

The probable costs to the agency for the implementation and enforcement of the proposed rules include costs to purchase 2012 code books for staff and any educational expenses necessary for staff to become familiar with the changes to the proposed rules.

The probable costs to any other agency for the implementation and enforcement of the proposed rules includes costs for 2012 code books for building officials and other entities involved with the enforcement of the rules and any educational expenses necessary for training on the proposed rules.

There is no anticipated effect on state revenues as a result of the implementation and enforcement of the proposed rules.

"(3) a determination of whether there are less costly methods or less intrusive methods for achieving the purpose of the proposed rule"

There are no less-costly or -intrusive methods for achieving the purpose of the proposed rules. The adoption of these rules will provide uniform application and enforcement of the Mechanical and Fuel Gas Codes. Uniform application and enforcement will result in more predictable code application and enforcement, which will tend to lower costs by reducing the need for review by local and state boards and other entities responsible for code interpretation and review.

"(4) a description of any alternative methods for achieving the purpose of the proposed rule that were seriously considered by the agency and the reasons why they were rejected in favor of the proposed rule"

The Department did not review or consider any other national model codes because previous editions of the IMC and the IFGC have been adopted in Minnesota and the IMC and the IFGC coordinate with other International Code Council codes that are accepted and adopted by the Department.

"(5) the probable costs of complying with the proposed rule, including the portion of the total costs that will be borne by identifiable categories of affected parties, such as separate classes of governmental units, businesses, or individuals"

The probable costs of complying with the proposed rules are negligible and most likely to be associated with necessary repair or replacement of existing installations, control devices, and materials to achieve compliance with new standards. Existing installations are not required to be removed, altered or abandoned and can continue use if lawfully in existence at the time of code adoption. That is, this code is not retroactive except to the extent a mechanical system has additions, alterations, renovations or repairs. There may also be costs associated with education related to the amended portions of Mechanical and Fuel Gas Codes.

While some specific requirements of the proposed rules may be considered more restrictive than the current rules, others are less restrictive. Any increase in costs will be passed along to the building owner or manager.

"(6) the probable costs or consequences of not adopting the proposed rule, including those costs or consequences borne by identifiable categories of affected parties, such as separate classes of government units, businesses, or individuals"

The Department anticipates the probable consequences of not adopting the proposed rules include confusion with application and enforcement of outdated codes. The family of ICC Codes is designed to work together as they reference each other within the body of each individual model code provision. The Department is in the process of adopting several of the 2012 ICC Codes. Therefore, if these proposed rules are not adopted, it could create confusion in other rule chapters that adopt and incorporate the 2012 ICC model codes when they reference the Mechanical and Fuel Gas Codes.

Another consequence of not adopting the proposed rule would be using outdated materials and methods and the costs associated with that because the Department currently administers and enforces the 2006 IMC and IFGC. As stated in the introduction, the Department chose to skip the adoption of the 2009 ICC codes because of a slowdown in the economy. Older methods may prove to be less efficient and outdated materials will be more difficult to obtain. Additionally, the IMC and IFGC book publisher may discontinue publishing the older code book editions because it is no longer cost-effective to keep in print. Therefore, failure to update the Mechanical and Fuel Gas Codes would have a negative impact on the administration, safety, application and enforcement of Minnesota's mechanical and fuel gas rules.

"(7) an assessment of any differences between the proposed rule and existing federal regulations and a specific analysis of the need for and reasonableness of each difference"

CFR Title 24, part 3280, subpart H, regulates gas piping, oil piping and heating and air-conditioning for manufactured homes. In Minnesota Rules, Chapter 1350, the Department has authority to administer these regulations on behalf of the United States Department of Housing and Urban Development. As a result, the Federal regulations supersede the requirements in the proposed rules for gas piping, oil piping, and heating and air-conditioning in manufactured homes.

"(8) an assessment of the cumulative effect of the rule with other federal and state regulations related to the specific purpose of the rule. . . . '[C]umulative effect' means the impact that results from incremental impact of the proposed rule in addition to other rules, regardless of what state or federal agency has adopted the other rules. Cumulative effects can result from individually minor but collectively significant rules adopted over a period of time."

There is no cumulative effect related to the specific purpose of the rules. The purpose of the proposed Mechanical and Fuel Gas Codes are to regulate the design, installation, maintenance, alternation and inspection of mechanical systems that are permanently installed and utilized to provide control of environmental conditions and related processes within buildings and the installation of fuel gas piping systems, fuel gas appliances, gaseous hydrogen systems and related accessories in accordance with the IFGC. There are no other rules or statutes that regulate mechanical and fuel gas systems. Although there is no cumulative effect related to the specific purpose of the rule, it is one chapter of approximately twenty-two chapters that make up the Minnesota State Building Code, which is a single set of coordinated building construction regulations that apply throughout the state of Minnesota. There are no other building codes that can be used or enforced in this state. These rules are coordinated as part of the Minnesota State Building Code and with other state agencies' non-building regulations, when applicable.

PERFORMANCE-BASED RULES

Minnesota Statutes, section 326B.106, subdivision 1, authorizes the Department to establish by rule a code of standards for construction. This statute requires the code to "conform insofar as practicable to model building codes generally accepted and in use throughout the United States." At the same time, this statute mandates that, "to the extent possible, the code must be adopted in terms of desired results instead of the means of achieving those results, avoiding wherever possible the incorporation of specifications of particular methods or materials."

The 2012 IMC and IFGC establish minimum regulations for mechanical and fuel gas systems using prescriptive and performance-based provisions, with emphasis on performance. The proposed rules that contain amendments to the 2012 IMC and IFGC incorporate the philosophy required by Minnesota Statutes, section 326B.106, subdivision 1.

ADDITIONAL NOTICE

This Additional Notice Plan was reviewed by the Office of Administrative Hearings and approved in an order dated April 30, 2014, issued by Administrative Law Judge Barbara J. Case. Judge Case approved the Additional Notice Plan contingent upon the inclusion of the following organizations:

a. The Minnesota Restaurant Association
b. Hotel and Restaurant Workers Union

Our Notice Plan also includes giving notice required by statute. We will mail the Dual Notice of Intent to Adopt Rules to everyone who has registered to be on the Department's rulemaking mailing list under Minnesota Statutes, section 14.14, subdivision 1a. We will also give notice to the Legislature per Minnesota Statutes, section 14.116.

The Department will mail the Dual Notice to the following interested parties:

1. All certified building officials involved in code administration. This list includes all municipal building officials responsible for administration of the state building code
2. Builders Association of Minnesota
3. Builders Association of the Twin Cities
4. League of Minnesota Cities
5. Minnesota Association of Building Officials
6. Minnesota Mechanical Contractors Association
7. Building Owners and Managers Association of Minneapolis and St. Paul
8. Minnesota Pipe Trades Association
9. Minnesota Utility Contractors Association
10. Minnesota State Fire Marshal Division
11. Minnesota Association of Plumbing, Heating and Cooling Contractors (PHCC)
12. Minnesota Manufactured Homes Association (MMHA)
13. Minnesota Plumbing Board
14. American Institute of Architects Minnesota (AIA Minnesota)
15. Minnesota Society of Professional Engineers
16. American Society of Mechanical Engineers – Minnesota Section
17. The Minnesota Restaurant Association
18. UNITE HERE Local 17
19. UNITE HERE Local 21
20. UNITE HERE Local 1481

Our Notice Plan did not include notifying the Commissioner of Agriculture because the rules do not affect farming operations per Minnesota Statutes, section 14.111.

CONSULTATION WITH MMB ON LOCAL GOVERNMENT IMPACT

As required by Minnesota Statutes, section 14.131, the Department consulted with Minnesota Management and Budget (MMB). On March 21, 2014, the Department sent MMB copies of the signed Governor's Office Proposed Rule and SONAR Form, the near-final draft of the proposed rule and the near-final draft of the SONAR. The Department will submit a copy of the cover correspondence and any response received from Minnesota Management and Budget to OAH at the hearing or with the documents it submits for ALJ review. MMB Executive Budget Officer Elisabeth Hammer responded, in part, as follows in a memorandum dated April 16, 2014, "Based upon the information provided to me by the Department of Labor and Industry, there does

not appear to be significant costs to local units of government that are not recoverable through local fees as a result of this proposed rule."

DETERMINATION ABOUT RULES REQUIRING LOCAL IMPLEMENTATION

As required by Minnesota Statutes, section 14.128, subdivision 1, the agency has considered whether these proposed rules require a local government to adopt or amend any ordinance or other regulation in order to comply with these rules. Pursuant to Minnesota Statutes, section 14.128, the Department has determined that a local government will not be required to adopt or amend an ordinance or other regulation to comply with these proposed rules. The State Building Code is the standard that applies statewide. Minnesota Statutes, section 326B.121, subdivision 1, mandates compliance with the State Building Code whether or not a local government adopts or amends an ordinance. As a result, an ordinance or other regulation is not required for compliance. If a city wishes that its ordinances accurately reflect legal requirements in a situation in which the State Building Code has superseded the ordinances, then the city may want to amend or update its ordinances.

COST OF COMPLYING FOR SMALL BUSINESS OR CITY

Agency Determination of Cost

As required by Minnesota Statutes, section 14.127, the Department has considered whether the cost of complying with the proposed rules in the first year after the rules take effect will exceed $25,000 for any small business or small city.[2] The Department has determined that the cost of complying with the proposed rules in the first year after the rules take effect will not exceed $25,000 for any small business or small city because the proposed rules do not require any construction to occur within the first year after the rules take effect. Any small business or city contemplating new construction or remodeling will decide whether or not to undertake the construction or remodeling project and when that construction or remodeling will occur. Because no new construction or remodeling that involve the installation of mechanical or fuel gas systems is required by the proposed rules within the first year after the rules take effect, no new construction or remodeling need be undertaken within the first year.

Additionally, any small business in the construction industry will likely pass through any additional costs that occur resulting from code changes, so the costs would not be borne by the small business, but by the building owner. A small city would likely need to purchase new code books and attend training to learn about new code changes, but this cost would not exceed $25,000 for the small city.

The costs of construction are subject to many variables, including the current construction economy, material costs, and local labor costs. The cost of life-safety provisions that change in the rule are part of the base costs upon which the cost of the other features are added. Other features may be reduced to adjust the cost.

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[2] A small business is "any one business that has less than 50 full-time employees." Minnesota Statute, section 14.127. A small city is "any one statutory or home rule charter city that has less than ten full-time employees." Id.

Small businesses and cities will never build the exact same building under the existing code and under the proposed rules. The number of variables and the fact that the new rule will provide for cost savings as well as costs, makes it unlikely the specific set of provisions that apply to a specific building on a specific site will increase the cost by more than $25,000.

LIST OF WITNESSES

If these rules go to a public hearing, the Department anticipates having the following witnesses testify in support of the need for and reasonableness of the rules:

1. Staff from the Department of Labor and Industry, if necessary; and
2. Members of the 1346 Advisory Committee, if necessary.

RULE-BY-RULE ANALYSIS

2012 INTERNATIONAL MECHANICAL CODE

NOTE.

Throughout the rules, references to the 2006 IMC have been changed to 2012 IMC because the Department is incorporating the 2012 edition of the IMC. Many code sections have been renumbered in the 2012 IMC so the rule is revised to reflect these renumbered sections. The definitions for the terms "appliance" and "equipment" did not change from the 2006 edition of the IMC to the 2012 edition of the IMC. The terms are used interchangeably in the existing rule. The rules have been corrected in the proposed rules to more accurately reflect the distinction between the two terms.

Throughout the rule, grammatical changes are made to clarify the requirements. This includes modifying numeric formats to provide clarity to the user.

1346.0050 TITLE; INCORPORATION BY REFERENCE.

This rule part is modified to properly incorporate by reference the 2012 edition of the IMC and the 2014 edition of the NFPA 96 Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.

1346.0101 SCOPE.

This rule part is modified by striking the references to IMC section 101, which is part of 2012 IMC chapter one, because chapter one is not incorporated by reference. The phrase "and appliances" is added to the second sentence after the word "equipment."[3] The second paragraph of this rule part is modified by deleting the reference to the edition of the ASME standards listed in the rule part. The editions are not necessary because the most current edition of these documents is listed in the "Referenced Standards" section in the 2012 IMC so it is not necessary to list them in

[3] See the "Note" section at the beginning of the Rule-by-Rule Analysis section of this SONAR for the rationale.

the rule part. The last sentence is modified and corrected to accurately refer to the Minnesota statute section regarding data classification of biotechnology process piping systems.

1346.0102 EXISTING INSTALLATIONS.

This rule part is modified by striking the references to section 102, which is part of 2012 IMC chapter one, because chapter one of the 2012 IMC is not adopted. The remainder of the section is unchanged.

1346.0103 MAINTENANCE.

This rule part is modified by striking the references to section 103, which is part of 2012 IMC chapter one, because chapter one of the 2012 IMC is not adopted. The remainder of the section is unchanged.

1346.0104 ADDITIONS, ALTERATIONS, RENOVATIONS, OR REPAIRS.

This rule part is modified by striking the references to section 104, which is part of 2012 IMC chapter one, because chapter one of the 2012 IMC is not adopted. The remainder of the section has no substantive changes but is modified for clarity.

1346.0105 WORK EXEMPT FROM PERMIT.

The current language in this rule part regarding work exempt from permit is deleted and replaced with language that refers the user to Minnesota Rules, chapter 1300. Chapter 1300 already addresses requirements for work that is exempt from a permit.

1346.0106 REQUIRED INSPECTIONS.

This rule part is modified by striking the references to section 106, which is part of 2012 IMC chapter one, because chapter one of the 2012 IMC is not adopted. The phrase "on the jobsite" is replaced with the word "used" to clarify that the material must be used and not merely present. The remainder of the section is unchanged.

1346.0108 AUTHORITY TO CONDEM MECHANICAL SYSTEMS.

This rule part is modified by striking the references to section 108, which is part of 2012 IMC chapter one, because chapter one of the 2012 IMC is not adopted. The remainder of the section has no substantive changes but is modified for clarity or correction, including adding a reference to Minnesota Rules, chapter 1300.

1346.0109 AUTHORITY TO ORDER DISCONNECTION OF ENERGY SOURCES.

This rule part is modified by striking the references to section 109, which is part of 2012 IMC chapter one, because chapter one of the 2012 IMC is not adopted. The remainder of the section is unchanged.

1346.0110 CONNECTION AFTER ORDER TO DISCONNECT.

This rule part is modified by striking the references to section 110, which is part of 2012 IMC chapter one, because chapter one of the 2012 IMC is not adopted. The remainder of the section has no substantive changes.

1346.0202 SECTION 202, GENERAL DEFINITIONS.

Approved. This rule part is modified by adding a definition for the term "approved." This definition is needed in this chapter to coordinate the definition of "approved" with the other chapters of the Minnesota State Building Code. Building officials are authorized to allow some construction methods or materials that have been determined to be in compliance with the state building code. It is reasonable to provide coordinated definitions of frequently used terms throughout the building code to avoid conflicts between terms from one chapter to another.

Code. This rule part is amended by adding a definition for the term "code" to clarify that any reference to "the code" or "this code" in Minnesota Rules, parts 1346.0050 to 1346.1500, means the Minnesota Mechanical Code.

Exhaust system. The definition for the term "exhaust system" is amended by deleting the phrase "central vacuums" and adding it as an exception to the end of the definition because a central vacuum system is typically exhausted into a garage and not directly to the outside. This definition is also modified by deleting the word "radon" and replacing it with the phrase "subslab soil" because a subslab soil exhaust system is more accurate. Radon systems are specifically addressed in Chapter 1303. The phrase "or an attached garage" is deleted from the end of the definition to correct an error because the exhaust systems listed in the first portion of the definition should not exhaust into a residential garage.

1346.0301 SECTION 301, GENERAL.

Section 301.7, Listed and labeled (new section number). The "Listed and labeled" section has been renumbered in the 2012 IMC to Section 301.7; that renumbering is reflected in this amendment. This section is also modified by deleting the reference to the year of publication for NFPA and ASME standards because the edition of the standards is already listed in the "referenced standards" section of the 2012 IMC therefore reference to the editions is redundant and unnecessary. No substantive changes were made to this part.

1346.0306 SECTION 306, ACCESS AND SERVICE SPACE.

Subpart 1. Section 306.5, Mechanical equipment and appliances on roofs and elevated structures. This subpart amends IMC section 306.5. This amendment is modified by adding the phrase "and appliances" to the exception.[4] No substantive changes were made to this section but it is modified for clarity or correction.

Section 306.5.1 Permanent ladders. No substantive changes were made to this section but it is modified for clarity.

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[4] See the "Note" section at the beginning of the Rule-by-Rule Analysis section of this SONAR for the rationale.

Subp. 2. Section 306.5.2, Electrical requirements. This subpart is modified by adding the phrase "or appliance" to the current rule language.[5] This subpart is also modified by deleting the reference to "ICC" and replacing it with the word "Minnesota" to correctly identify the electrical code adopted in Minnesota.

Subp. 3. Section 306.5.3, Sloped roofs. This subpart is modified by deleting the phrase "International Building Code" and replacing it with the phrase, "Minnesota Rules, chapter 1305" to correctly identify the location of Minnesota's commercial construction code. No substantive changes were made to this part but it is modified for clarity or correction.

1346.0309 SECTION 309, TEMPERATURE CONTROL.

This rule part is modified by deleting exception #2 from the list of exceptions in section 309.2.1. Exception #2 is deleted because it pertains to exhaust-only ventilation systems, which are no longer permitted in Minnesota's Mechanical Code. No other substantive changes are proposed.

Section 309.2.3 Systems balancing reports. There are no substantive changes to this section but it is modified for clarity.

1346.0401 SECTION 401, GENERAL.

This rule part is modified by deleting the current rule language and adding an exception to IMC section 401.1. The added exception is necessary because residential ventilation requirements are regulated in Minnesota Rules chapter 1322. The current rule language is deleted because the requirements are now addressed in part 1346.0501 of the 2012 IMC.

1346.0403 SECTION 403, MECHANICALVENTILATION.

This rule part is repealed because although the 2006 IMC did not include the language supplemented by this rule part, section 403 of the 2012 IMC incorporates this language; therefore the rule part is no longer necessary.

1346.0404 SECTION 404, ENCLOSED PARKING GARAGES.

Subpart 1. Section 404.1, Enclosed parking garages. The existing language in this subpart pertaining to enclosed parking garages is replaced with proposed language. The proposed language requires mechanical ventilation systems to detect by automatic sensor carbon monoxide (CO), nitrogen dioxide (NO_2), or both, whichever is applicable. Upon detection of CO or NO_2 at the stated levels, the automatic sensor will activate the ventilation system. The levels of CO and NO_2 specified are the maximum allowable concentration levels recommended by the American Council of Governmental Industrial Hygienists, which provide industry-accepted values. The system capability rate is addressed below. These modifications are necessary to ensure the systems operate when needed, based on the CO or NO_2 levels, and to promote the use of energy-efficient exhaust systems that operate only upon detection of CO or NO_2 instead of operating continuously.

[5] Id.

Subp. 2. Section 404.2, Minimum exhaust. The language in the current rule that amends IMC section 404.2 is deleted because the motor vehicle repair garage standards that were addressed here were not included in the 2006 IMC but they are addressed in the 2012 IMC Table 403.3. The proposed 404.2 language retitles the section and specifies the minimum exhaust rate which a ventilation system must be capable of meeting because it is not regulated elsewhere in the 2012 IMC.

Subp. 3. Section 404.3, Occupied spaces accessory to public garages. This subpart is modified by adding "elevator lobbies" to the requirement because elevator lobbies that are adjacent to parking garages are similar to other accessory spaces. The omission of "elevator lobbies" in the rule has historically caused inconsistent application of this requirement. The referenced standard has been changed to IMC section 403.3 instead of the ASHRAE standards.

1346.0501 SECTION 501, GENERAL.

Subpart 1. Section 501.3, Exhaust discharge. Section 501.2 is renumbered to Section 501.3 to coordinate with numbering changes made in the 2012 IMC and deleting the "1." in front of the only exception listed. The other amendments to the IMC section remain the same (e.g., deletion of the first of two exceptions listed in the IMC but only one exception maintained in the rule).

Subp. 2. Section 501.4, Pressure equalization. Section 501.3 is renumbered to Section 501.4 to coordinate with changes made in the 2012 IMC.

Subsection 501.3.1 is renumbered to 501.4.1 and references to this subsection in the body of the requirement are modified to coordinate with this numbering change made in the 2012 IMC. Modifications to this section also replace the word "dwellings" with the words "dwelling units" because section 202 of the 2012 IMC defines the term dwelling as a building or portion thereof that contains not more than two dwelling units. "Dwelling unit" is defined as a single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation. Dwelling unit is the term that accurately defines what is intended here. As a result, this change requires all dwelling units, including townhomes, condominiums and apartments, to have makeup air as required by this section. The reference to the edition of the standard is deleted because it is provided in the referenced standards section; the reference here is redundant.

Subsections 501.4.2.4 (Makeup air termination restriction) and 501.4.2.6 (Makeup air effectiveness) were modified by replacing "equipment" with "appliance" and "appliances," respectively.[6]

The subsections and subsection references (501.4.1 to 501.4.2.6) have been renumbered accordingly to coordinate with numbering changes made in the 2012 IMC described above.

Subsection 501.3.3 is renumbered to 501.4.3 and references to this subsection are modified to coordinate with this numbering change made in the 2012 IMC. Other modifications to this section delete the word "dwellings" and replace it with the words "dwelling units" or add the word "unit" after the word "dwelling" throughout the subsection because section 202 of the 2012 IMC defines the term dwelling as a building or portion thereof that contains not more than two dwelling

[6] See the "Note" section at the beginning of the Rule-by-Rule Analysis section of this SONAR for the rationale.

units. The term "dwelling unit" as defined in section 202 of the 2012 IMC is the term that accurately defines what was intended here. Other modifications include removing "IMC" in some cases when the section is not from the IMC but rather are rule (sub)sections only.

Table 501.3.1, and any references to it, is renumbered to 501.4.1 and retitled by replacing the word "Dwelling" with "Dwelling units" to coordinate with changes made in the 2012 IMC. Column #4 is retitled by adding the phrase "appliances that are" to the heading to clarify that the column applies to multiple appliances. Minnesota Rules, Chapter 1322, the Residential Energy Code, prohibits the use of an exhaust-only system in Minnesota because structures are now constructed in a way that air infiltration from building leakage is not sufficient to supply adequate makeup air for an exhaust-only system. Therefore, the exhaust-only system calculation to be used for residential dwelling units, column #1, the second row, 2. Exhaust capacity, subitem a) continuous exhaust-only ventilation system (cfm), is deleted. This table further modifies the "Total Exhaust Capacity (cfm)" formula in the first column by deleting the reference to "+2d" because subitem 2a is deleted and the remaining subitems are relettered, so there is no longer a subitem labeled "2d."

Table 501.3.2, and any references to it, is renumbered to 501.4.2 and retitled by replacing the word "Dwelling" with "Dwelling units" to coordinate with changes made in the 2012 IMC. Column #5 is retitled by adding the phrase "appliances that are" to the heading to clarify that the column applies to multiple appliances.

Table 501.3.3(1), and any references to it, is renumbered to 501.4.3(1) and retitled by replacing the word "Dwelling" with "Dwelling units" to coordinate with changes made in the 2012 IMC. The title is also modified by deleting the word "Equipment" and replacing it with the word "Appliances."[7] Column #5 is retitled by adding the phrase "appliances that are" to clarify that the column applies to multiple appliances.

Table 501.3.3(2), and any references to it, is re-numbered to Table 501.4.3(2) and is retitled by replacing the word "Dwelling" with "Dwelling units" to coordinate with changes made in the 2012 IMC. The title is also modified by deleting the word "Equipment" and replacing it with the word "Appliances."[8] Column #5 is retitled by adding the phrase "appliances that are" to clarify that the column applies to multiple appliances.

Table 501.3.3(3), and any references to it, is renumbered to Table 501.4.3(3) and retitled by replacing the word "Dwelling" with "Dwelling units" to coordinate with changes made in the 2012 IMC. The title is also modified by deleting the word "Equipment" and replacing it with the word "Appliances."[9] Column #5 is retitled by adding the phrase "appliances that are" to clarify that the column applies to multiple appliances. Minnesota Rules, Chapter 1322, the Residential Energy Code, prohibits the use of an exhaust-only system in Minnesota because structures are now constructed in a way that air infiltration from building leakage is not sufficient to supply adequate makeup air for an exhaust-only system. Therefore, the exhaust-only system calculation to be used for residential dwelling units, column #1, the second row, 2. Exhaust capacity, subitem a) continuous exhaust-only ventilation system (cfm), is deleted. This table further modifies the "Total Exhaust Capacity (cfm)" formula in the first column by deleting the reference to "+2d"

[7] See the "Note" section at the beginning of the Rule-by-Rule Analysis section of this SONAR for the rationale.
[8] Id.
[9] Id.

because subitem 2a is deleted and the remaining subitems are relettered, so there is no longer a subitem labeled "2d."

1346.0502 SECTION 502, REQUIRED SYSTEMS.

This rule part adds a fourth exception to section 502.14 of the 2012 IMC. This additional exception replaces a source capture system in some cases – when an exhaust pipe extension duct is less than ten feet, connected directly to the motor vehicle exhaust system and discharges the exhaust directly to the outside of the building. This has been proven to be a safe method to discharge motor vehicle exhaust to the outside.

1346.0504 SECTION 504, CLOTHES DRYER EXHAUST.

This rule part is repealed because the 2012 IMC contains similar language regarding condensation and requires compliance with the manufacturer's installation instructions to ensure correct installation of the equipment. As a result, this rule part is no longer necessary.

1346.0505 SECTION 505, DOMESTIC KITCHEN EXHAUST APPLIANCES.

This rule part is modified by replacing the word "equipment" with the word "appliances" in the title of the rule part.[10]

1346.0506 SECTION 506, COMMERCIAL KITCHEN HOOD VENTILATION SYSTEM DUCTS AND EXHAUST APPLIANCES.

This rule part is modified by replacing the word "equipment" with the word "appliances" in the title of the rule part.[11]

Subpart 1. Section 506.1. The language in this subpart is relocated, with non-substantive modifications, from Minnesota Rules, part 1346.0507, subparts 4 and 7, to coordinate with changes made to the 2012 IMC. Part 1346.0507, subpart 4 is repealed and subpart 7 is modified to delete the redundant language. See below.

Subp. 1a. Section 506.3. This subpart is amended by deleting the edition of the NFPA 96 Standard because the edition is included in the "Referenced Standards" chapter in the 2012 IMC. It is not necessary to repeat it in the rule.

Subp. 2. Sections 506.3.1 to 506.3.2.4. This subpart is modified by deleting the amended NFPA 96 language and instead references NFPA 96 chapters 1 to 10 and 12 to 15. The amended NFPA 96 language is no longer necessary because NFPA 96 chapters 1 to 10 and 12 to 15 now contain that language.

Subp. 2a. Section 506.3.2.5. This is a new subpart that amends section 506.3.2.5 and incorporates three new subsections, 506.3.2.5.1, 506.3.2.5.2, and 506.3.2.5.3. This new language is added to incorporate requirements from the ASHRAE Standard 154, which provides three

[10] Id.
[11] Id.

testing methods to ensure that the joints on grease ducts are liquid tight. The method in section 506.3.2.5.2 is currently in Minnesota Rules, part 1346.0506, subpart 2, but has been modified grammatically for clarity. Part 1346.0506, subpart 2 is proposed to be deleted (see above). The addition of these requirements is necessary because more than one method is necessary in the rule to provide flexibility to evaluate whether the joints are liquid tight. These modifications are reasonable because they are based on accepted testing methods for grease duct systems in the sheet metal/grease duct industry.

Subp. 2b. Sections 506.3.3 to 506.3.13.3. These sections are being deleted from the 2012 IMC for purposes here because they are included in the adopted chapters of the 2014 NFPA 96. The adopted chapters of the 2014 NFPA 96 contain nationally recognized comprehensive standards that address ventilation control and fire protection of commercial cooking operations. Because the NFPA 96 chapters provide a more comprehensive set of standards than the IMC, it is reasonable to use the single set of standards, the NFPA 96, instead of a combination of the NFPA 96 to supplement the 2012 IMC.

Subp. 3. Section 506.4.2. This subpart is modified by deleting requirement #3 from the list of requirements and renumbering requirement #4 to #3. Current requirement #3 pertaining to an increased slope in horizontal ducts exceeding 75 feet is deleted because typical ceiling heights found in most kitchens and adjacent rooms are too low to accommodate such a slope. Deleting this requirement is reasonable because ducts and plenums that serve Type II hoods do not involve liquid grease that is typically generated from commercial kitchen cooking operations, for which Type II hoods are used.

Subp. 4. Section 506.5 to 506.5.5. This new subpart deletes sections 506.5 to 506.5.5 from the 2012 IMC because these requirements are now contained in the adopted chapters of the 2014 NFPA 96. This modification will prevent any conflicts between this code and the NFPA 96.

1346.0507 SECTION 507, COMMERCIAL KITCHEN HOODS.

Subpart 2. Section 507.2, Where required. This subpart is modified by replacing the reference to "sections 507.2.1 and 507.2.2" with a reference to ASHRAE 154. Subsections 507.2.1, 507.2.1.1, 507.2.2 and 507.2.2. are deleted. This modification is necessary to simplify the requirements located in section 507.2 for the installation requirements of Type I and Type II hoods over commercial cooking appliances.

Subp. 4. Section 507.2.3 Domestic cooking appliances used for commercial purposes. This subpart is repealed because the information is now contained in the 2012 IMC.

Subp. 7. Section 507.5, Type II hood materials. The reference to the Minnesota Food Code is deleted and relocated to Minnesota Rules, part 1346.0506, subpart 1, with grammatical modifications.

Subp. 8. Section 507.7 Hood joints, seams, and penetrations. This subpart is modified grammatically for clarity. The substantive requirement remains unchanged.

Subp. 9. Section 507.7.1 Type I hoods. This subpart amends IMC section 507.7.1; the proposed rule deletes the reference to the edition of the NFPA 96 because the "Referenced Standards" chapter in the 2012 IMC lists the edition. As a result, the edition in this subpart is redundant and not necessary.

1346.0508 SECTION 508, COMMERCIAL KITCHEN MAKEUP AIR.

Subpart 1. IMC Section 508.1, Makeup air. This subpart is modified by deleting the requirement that a minimum of 80% of the make-up air be supplied into the space where the exhaust hood is located. This modification is necessary to permit makeup air to be supplied to the space where the exhaust hood is located from other locations instead of 80% being supplied only into the space where the exhaust hood is located. This subpart also replaces the reference to section 401.4.1 with IMC section 401.5 because section 401.5 addresses the subject matter covered in 401.4.1, which is deleted in the proposed rule.

1346.0510 SECTION 510, HAZARDOUS EXHAUST STSTEMS.

Subpart 1. IMC Section 510.1, General. This subpart is modified by deleting the edition of the NFPA 45. This modification is necessary because IMC Chapter 15, Referenced Standards, already identifies the NFPA 45 Standard. As a result, this reference is no longer necessary.

1346.0512 SECTION 512, SUBSLAB SOIL EXHAUST SYSTEMS.

IMC Section 512.1, General. This new rule part adds an exception providing the user direction to find the requirements for sub-slab soil exhaust systems used for radon control in residential occupancies. Radon control systems are a type of sub-slab soil exhaust system. This exception is necessary because Minnesota currently has code requirements for radon control that are more specific than the requirements for sub-slab soil exhaust systems.

1346.0603 DUCT CONSTRUCTION AND INSTALLATION

Subpart 2. IMC Table 603.4, Duct Construction Minimum Sheet Metal Thicknesses for Single Dwelling Units. This subpart modifies Table 603.4 by reproducing the 2006 IMC version of Table 603.4 rather than using the 2012 IMC version. The 2006 requirements are carried over because the1346 Rule Advisory committee recommended maintaining 2006 standards; the requirements in the 2012 version are overly restrictive by requiring thicker sheet metal in applications where it is unnecessary.[12]

Subpart 2a. Section 603.4. IMC section 603.4. This section has been renumbered subpart 2a from subpart 2.

Subsection 603.4.1, Minimum fasteners, is added to the rule for context but the language is verbatim from this section of the 2012 IMC.

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[12] See 1346 Advisory Committee, December 21, 2011, meeting notes. Available at: http://www.dli.mn.gov/CCLD/rm/PDF/1346_notes122111%20.pdf

Subsection 603.4.2, Elbows, is a subsection added to the IMC. The current rule is modified here by replacing the reference to 76.2 m/min with 5 m/sec in two locations. This modification is necessary to correct a metric conversion error. Subsections 603.4.3, Transition fittings, and 603.4.4, Obstructions, are renumbered from 603.4.2 and 603.4.3, respectively, to accommodate the addition of subsection 603.4.1.

Subp. 9. IMC Section 603.9, Joints, seams, and connections. This subpart is modified by deleting the current language and table pertaining to duct sealing and replacing it with new language that amends the language in section 603.9 of the 2012 IMC, including the exception. Specifically, the IMC language is modified by adding a sentence near the end of the section that reads, "Pressure-sensitive tape shall not be used as the primary sealant on ducts, unless it has been certified to comply with UL-181A or UL-181B by a nationally recognized testing laboratory and the tape is used in accordance with that certification." This new language is necessary because pressure-sensitive (self-adhesive) duct tape cannot be used as the primary sealant for any duct system unless it has been certified to comply with the applicable standards. Currently, there is no duct tape manufacturer that has a pressure-sensitive duct tape that is certified to be used on metallic duct work as a primary sealant. This modification clarifies that duct tape cannot be used in this application but leaves room for advancements in products.

Subp. 10. IMC Section 603.18, Registers, grilles and diffusers. This subpart is modified by renumbering the section number from 603.17 to 603.18 to coordinate with changes made in the 2012 IMC. Specifically, the modified section, Adjustment of volume dampers, is renumbered from 603.17.3 to 603.18.3. There are no proposed substantive changes.

1346.0604 SECTION 604, INSULATION.

This rule part is modified by replacing the existing language pertaining to minimum required duct insulation with references to the residential and commercial Minnesota Energy Conservation Codes, Minnesota Rules, Chapters 1322 and 1323. This change is necessary because chapters 1322 and 1323 contain comprehensive energy requirements that apply to Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) systems.

1346.0607 SECTION 607, DUCT AND TRANSFER OPENINGS.

IMC Section 607.6.1, Through penetrations. This is a new subpart that modifies IMC section 607.6.1. Specifically, this section is modified by changing references to specific IMC sections and replacing them with references to the Minnesota Building Code. These modifications are necessary to coordinate these requirements with the same requirements in the IBC. This subpart also modifies this section by adding a new exception pertaining to Group I-2 and I-3 occupancies. This modification is necessary to coordinate with IBC requirements for smoke/fire dampers, which permits only one smoke/fire damper for a duct that connects two stories in group I-2 and I-3 occupancies.

1346.0701 SECTION 701, GENERAL.

This rule part is being repealed because the content is incorporated in the 2012 IMC. As a result, this amendment is no longer necessary.

1346.0703 SECTION 703, OUTDOOR AIR.

This rule part is being repealed because the content is incorporated in the 2012 IMC. As a result, this amendment is no longer needed.

1346.0803 SECTION 803, CONNECTORS.

This rule part is being repealed because the content is included in the 2012 IMC. As a result, this amendment is no longer needed.

1346.1001 SECTION 1001, GENERAL.

Subpart 1. IMC Section 1001.1, Scope. This subpart is modified by replacing the current subpart 1 with the language in subpart 3, with modifications. Organizationally, it is clearer to provide the scope of the chapter first. There were no substantive changes to the list of exceptions when moved from subpart 3 to subpart 1. The changes are simply related to relocation and reorganization as will be evident in the other subparts of this section.

Subp. 1a. IMC Section 1001.2, Scope; boilers; labor and industry. This subpart adds a section to the IMC; the language that is currently in subpart 1 is moved here, with some modifications. The modifications include removing the reference to chapter 5225 and Minnesota statutes 326B.952 to 326B.998 because the references are no longer necessary. The modified paragraph clarifies and limits this subpart to *inspection* of boilers. The current rule language includes installation, alteration and repair of boilers and pressure vessels. The proposed rule reorganizes the requirements so they are no longer necessary in this subpart.

Subp. 1b. IMC Section 1001.3, Scope; pressure vessels; labor and industry. This subpart adds a section to the IMC; it is new language that separates certain pressure vessel requirements from boiler requirements to avoid confusion. There are slightly different requirements for pressure vessels than for boilers. This subpart makes that clear. This subpart is very similar to the requirements for boilers in subpart 2 but who can inspect the pressure vessel is different

Subp. 2. High-Pressure Piping for Boilers; Labor and Industry. This is the existing subpart 2 language but renumbered and updated to reflect that the applicable Minnesota Statutes go to section 326B.93 instead of just to section 326B.925.

1346.1004 SECTION 1004, BOILERS.

Subp. 1. IMC Section 1004.1, Standards. This subpart is modified by replacing the references to the ASME codes with a reference to Minnesota Statutes, section 326B.964 because that section cites all of the applicable inspection codes and standards and avoids repeating the statute.

Subp. 2. IMC Section 1004.2, Installation. This subpart is modified by replacing the reference to IMC chapter 16 with a reference to Minnesota Rules, parts 1346.1601 to 1346.1606.

This change is necessary because the requirements in parts 1346.1601 to 1346.1606 are only in Minnesota Rules, not the IMC.[13]

1346.1006 SECTION 1006, SAFETY AND PRESSURE RELIEF VALVES AND CONTROLS.

Subpart 1. IMC Section 1006.4, Approval of safety and safety relief valves. This subpart is modified by replacing the phrase "lifting the seat" with the phrase "testing the valve." This modification clarifies the intent of the requirement, which is to test the valve and not merely lift the seat (of the valve). Consistent with Minn. St. § 326B.106 performance-based requirements, this clarification also allows for other methods of manually testing the valve.

Subp. 3. IMC Section 1006.9, Boiler shutdown switch. This subpart is amended by deleting the reference to the edition of the ASME Standard referenced in the subpart because Chapter 15, Referenced Standards, already contains the edition of the Standard. As a result, this reference is no longer necessary.

1346.1007 SECTION 1007, BOILER LOW-WATER CUTOFF.

Subpart 1. IMC Section 1007.1, General. This subpart is modified by replacing the word "when" with the word "before" to clarify that the low water cutoff must stop the fuel flow before the water level in the boiler drops below the safe water level. It is unsafe to allow the boiler water level to drop below the point of safety. This modification is necessary to ensure life safety.

1346.1011 SECTION 1011, TESTS.

IMC Section 1011.1, Tests. This rule part is modified by replacing the reference to the ASME Code with references to Minnesota Statutes, section 326B.958 and 326B.966. This modification provides a reference to requirements that are coordinated with the Minnesota State Building Code.

1346.1101 SECTION 1101, GENERAL.

IMC Section 1101.1, Scope. This new rule part adds an exception to section 1101.1, Scope, of the 2012 IMC. This exception clarifies that ammonia refrigeration systems are regulated by Minnesota Rules, chapter 5230, and not by this rule chapter.

1346.1204 SECTION 1204, PIPE INSULATION.

IMC Section 1204.2, Required thickness. This rule part is repealed. The rule part contains a piping insulation table that is already in the Minnesota Residential Energy Code. As a result, this amendment is being deleted to prevent a conflict between codes.

1346.1500 CHAPTER 15, REFERENCE STANDARDS.

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[13] See part 1346.1601, which adds sections 1601 to 1606 to the IMC for Minnesota purposes, e.g., "The IMC is amended by adding a section to read as follows: SECTION 1601 GENERAL"

Subpart 1. Modifications to chapter 15. This subpart is being repealed because all of the standards listed in this subpart are updated in the 2012 IMC, Referenced Standards section, so they no longer need to be modified and updated. As a result, the subpart is no longer necessary.

Subp. 2. Supplemental standards. Several of the referenced standards listed in this rule part are now included in the referenced standards section of the 2012 IMC, therefore they are no longer needed in this rule. This subpart also adds a standard to the list, ASHRAE 154-2011, as subitem A, because this standard is referenced in the proposed rules and is not in the 2012 IMC list of referenced standards. The remaining listed standards are re-lettered as a result of these modifications.

2012 INTERNATIONAL FUEL GAS CODE

NOTE.

Throughout the rule, references to the 2006 IFGC have been changed to 2012 IFGC because the Department is incorporating the 2012 edition of this code. Many code sections have been renumbered in the 2012 IFGC so the rule is revised to reflect these renumbered sections.

In the 2006 IFGC, the definitions for the words "appliance" and "equipment" are the same and were used interchangeably. In fact, the definition for "equipment" refers the user to the definition for the word "appliance." In the 2012 IFGC, each term is defined with a distinct definition. The definition for "equipment" specifically excludes "appliances" in the definition. Therefore, the terms used throughout the rule were corrected to reflect the intended term consistent with the distinct definitions in the 2012 IFGC. Incidents of those changes are noted below.

Throughout the rule, grammatical changes are made to clarify the requirements. Some number references were changed from numeric representations to word representations or vice versa for clarity to the user.

1346.5050 TITLE; INCORPORATION BY REFERENCE.

This rule part is modified to incorporate by reference the 2012 edition of the International Fuel Code and clarifies the rule parts that make up the Minnesota Fuel Gas Code. The definition of "the code" and "this code" are deleted here and relocated to the definitions section.

1346.5101 ADMINISTRATION.

Subpart 1. Scope. This subpart is modified by deleting references to IFGC section 101, which is part of IFGC chapter 1, because chapter 1 is not adopted into this rule. The section is assigned a subpart number instead. Although chapter 1 of the IFGC is not adopted into this rule, there are portions previously replicated and added to this rule (see below). The proposed subpart also replaces the phrase "utilization equipment" with the word "appliances" because, in this case,

"utilization equipment" as used here has the intended meaning of "appliances" as defined in the 2012 IFGC.[14]

Subp. 2. Gaseous hydrogen systems. The section heading is modified by deleting the reference to section 101.1 because chapter 1 of the IFGC is not adopted into this rule. The section was assigned a subpart number instead.

Subp. 3. Piping systems. This section heading is modified by deleting the reference to section 101.2 because chapter 1 of the IFGC is not adopted into this rule. The section was assigned a subpart number instead. The proposed subpart replaces the phrase "These regulations cover" with the phrase "This code applies" to more accurately and clearly describe the scope. As previously explained, "equipment" is changed to "appliance."[15]

Subp. 4. Gas appliances. This section heading is modified by deleting the reference to section 101.3 because chapter 1 of the IFGC is not adopted into this rule. The section was assigned a subpart number instead. The proposed subpart replaces the phrase "Requirements for" with the phrase "This code applies to" because it is a more accurate description. Other grammatical changes were made for clarity. As previously explained, "equipment" is changed to "appliance."[16]

Subp. 5. Systems, appliances, and equipment outside the scope. This section heading is modified by deleting the reference to section 101.4 because chapter 1 of the IFGC is not adopted into this rule. The section was assigned a subpart number instead. As previously explained, "equipment" is changed to "appliance."[17]

Subp. 6. Other fuels. This section heading is modified by deleting the reference to section 101.4 because chapter 1 of the IFGC is not adopted into this rule. The section was assigned a subpart number instead.

1346.5202 SECTION 202 (IFGC), GENERAL DEFINITIONS.

Subpart 1. IFGC Section 202, General definitions. This subpart is modified by adding a definition for the term "approved." This definition is needed in this chapter to have a consistent definition of "approved" with the other chapters of the Minnesota State Building Code. In some situations, the building official is authorized to assess and determine whether proposed construction methods are in compliance with the state building code. This definition helps to provide consistency in the assessments and determination methods while maintaining quality among building official approvals. It is reasonable to provide coordinated definitions of frequently used terms throughout the building code to avoid conflicts between terms from one chapter to another. This subpart is also modified by adding a definition for the term "code." This definition is necessary to clarify that references to the code shall mean the Fuel Gas portion of Minnesota Rules, chapter 1346, Adoption of the 2012 International Fuel Gas Code, with amendments. Other amendments in this subpart delete redundant numerical references as described above.

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[14] See the "Note" section at the beginning of the Rule-by-Rule Analysis section of this SONAR for the rationale.
[15] Id.
[16] Id.
[17] See the "Note" section at the beginning of the Rule-by-Rule Analysis section of this SONAR for the rationale.

1346.5301 SECTION 301 (IFGC), GENERAL.

IFGC Section 301.3, Listed and labeled. This rule part is modified by deleting the edition year of each standard referenced. Chapter 8, Referenced Standards, of the IFGC already contains a list of the referenced standards, including the edition year; therefore including the edition in the rule is redundant and unnecessary.

1346.5303 SECTION 303 (IFGC), APPLIANCE LOCATION.

IFGC Section 303.3, Prohibited locations. This new rule part deletes items 3 and 4 pertaining to unvented room heaters from the list of exceptions in section 303.3. This modification is necessary because unvented room heaters are prohibited in the Minnesota Mechanical and Fuel Gas Codes.[18]

1346.5304 SECTION 304 (IFGC), COMBUSTION, VENTILATION, AND DULUTION AIR.

Subpart 1. IFGC Section 304.1, General. As previously explained, "equipment" is changed to "appliance."[19] The current rule amends the IFGC by adding some exceptions; the proposed rule clarifies that the rule adds exceptions to the IFGC.

Subp. 2a. IFGC Section 304.6.1, Two-permanent openings method. The IFGC section is deleted in its entirety because it would conflict with part 1346.5304, subpart 8, which amends section 304.11, Combustion air ducts, of the IFGC. Specifically, the amendment in subpart 8 states that ducts shall not terminate in an attic space.[20]

Subp. 3. IFGC Section 304.6.2, One permanent opening method. The language was modified by replacing the word "equipment" with the word "appliances," as explained above.[21]

1346.5306 SECTION 306, ACCESS AND SERVICE SPACE.

Subpart 1. IFGC Section 306.5, Mechanical equipment and appliances on roofs or elevated structures. This subpart is modified by adding the phrase "and appliances" in the exception because the exception applies to both appliances and equipment, given the distinct definitions found in the 2012 IFGC.[22]

1346.5403 SECTION 403 (IFGC), PIPING MATERIALS.

Subpart 1a. Section 403.10.1, Pipe Joints. This new subpart amends section 403.10.1 on pipe joints. Specifically, the section is amended by adding an option to join pipes using pressure connect fittings that comply with ANSI LC-4. This additional option is necessary, which references this standard, to permit pressure connected fittings for gas piping. This option was not

[18] See Minn. R. 1346.0901, which is not being amended at this time.
[19] See the "Note" section at the beginning of the Rule-by-Rule Analysis section of this SONAR for the rationale.
[20] See Minn. R. 1346.5304, subp. 8, in relevant part, "5. Ducts shall not terminate in an attic space."
[21] See the "Note" section at the beginning of the Rule-by-Rule Analysis section of this SONAR for the rationale.
[22] Id.

specifically permitted in the existing rule or the 2012 IFGC but it is a newly accepted method.[23] The current subpart 1a is renumbered to 1b.

1346.5404 SECTION 404 (IFGC), PIPING SYSTEM INSTALLATION.

Subpart 1. IFGC Section 404.6, Underground penetrations prohibited. This subpart is modified by deleting the amendment to IFGC section 404.4, piping through foundation wall, because the requirement is now contained in the 2012 IFGC; amending the section is no longer necessary. The proposed subpart modifies IFGC section 404.6 pertaining to the prohibition of underground penetrations to coordinate with language changes made in the 2012 IFGC. The last sentence in this subpart is not new and continues to be relevant. It allows the building official to permit underground piping if structural conditions require it.

Subp. 2. IFGC Section 404.8, Piping in solid floors. This subpart is modified by renumbering the IFGC section that is amended to coordinate with the renumbering in the 2012 IFGC. The proposed subpart adds a sentence that reads, "As an alternative to installation in channels, the piping shall be installed in a conduit of Schedule 40 steel, wrought iron, PVC, or ABS pipe in accordance with IFGC section 404.8.1 or 404.8.2." This sentence is necessary because it provides industry-accepted alternatives to pipe placement based on the material permitted in this section.

Subp. 5. IFGC Section 404.14, Piping underground beneath buildings. This subpart is modified by renumbering the IFGC section that is amended and the IFGC section referenced in it to coordinate with numbering changes made in the 2012 IFGC.

Subp. 6. IFGC Section 404.15, Prohibited devices. This subpart is being repealed because the 2012 IFGC now contains this language. As a result, the subpart is no longer necessary.

1346.5406 SECTION 406 (IFGC), INSPECTION, TESTING, AND PURGING.

Subpart 1. IFGC Section 406.1.2. Alterations, repairs, and additions. This subpart is modified by adding the phrase "or appliance" to the exception because the exception applies to both appliances and equipment, given the distinct definitions found in the 2012 IFGC.

1346.5408 SECTION 408 (IFGC), DRIPS AND SLOPED PIPING.

This rule part is modified by replacing the word "equipment" with "appliances" in several places in the rule part as explained above. The word "utilization" is deleted for consistency in terminology with other rule parts.

1346.5409 SECTION 409 (IFGC), SHUTOFF VALVES.

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[23] The advisory committee received a proposal to include this press-connect language with a reference to ANSI LC-4. See Proposal #29a, available at: http://www.dli.mn.gov/CCLD/rm/PDF/1346_IMC29a.pdf. The advisory committee discussed this proposal at the February 29, 2012 meeting. See meeting minutes at: http://www.dli.mn.gov/CCLD/rm/PDF/1346_notes022912.pdf

Subpart 1. IFGC Section 409.1, Main shutoff valve. This subpart is modified by replacing the word "equipment" with "an appliance" to the exception.[24]

1346.5501 SECTION 501 (IFGC), GENERAL.

Subp. 2. IFGC Section 501.8, Appliances not required to be vented. This subpart is modified by replacing the word "Equipment" in the heading with the word "Appliances."[25] The proposed subpart also deletes item 9 from the list of appliances not required to be vented. This item pertains to other equipment that is listed for unvented use and not provided with flue collars. This item is deleted because it will conflict with IFGC sections 602.3 and 621, as amended in Minnesota rules parts 1346.5602 and 1346.5621.

1346.5503 SECTION 503 (IFGC), VENTING OF APPLIANCES.

Subpart 3. IFGC Section 503.5.5, Size of chimneys. This subpart is amended by replacing the word "equipment" with the word "appliance."[26]

Subp. 7. IFGC Section 503.7.9, Size of single-wall metal pipe. This subpart is modified by renumbering the IFGC section that is amended to coordinate with the renumbering in the 2012 IFGC. In addition, the proposed subpart is modified by replacing the word "equipment" with the word "appliance."[27]

Subp. 9. Section 503.10.7, Joints. The subpart is repealed because the 2012 IFGC now adequately addresses joints, so the amendment in this subpart is no longer necessary.

1346.5504 SECTION 504 (IFGC), SIZING OF CATEGORY 1 APPLIANCE VENTING SYTSTEMS.

Subpart 1. IFGC Section 504.2.7, Liner system sizing. This subpart is modified by correcting the reference to section 504.3, a typographical error, to 504.2.3.

Subp. 1a. IFGC Table 504.2(3), Masonry chimney. This is a new subpart that modifies Table 504.2(3) by deleting the phrase "seven times" and replacing it with the phrase "four times" in the row entitled "Maximum Internal Area of Chimney (square inches)." This modification is necessary so the table does not conflict with section 504.2.8, as amended. Minnesota's climatic conditions require the size of vents to be kept to a minimum.

Subp. 1b. IFGC Table 504.2(4), Masonry chimney. This is a new subpart the modifies Table 504.2(4) by deleting the phrase "seven times" and replacing it with the phrase "four times" in the row entitled "Maximum Internal Area of Chimney (square inches)." This modification is necessary so the table does not conflict with section 504.2.8, as amended. Minnesota's cold climatic conditions require the size of vents to be kept to a minimum.

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[24] See the "Note" section at the beginning of the Rule-by-Rule Analysis section of this SONAR for the rationale.
[25] Id.
[26] Id.
[27] Id.

1346.5602 SECTION 602 (IFGC), DECORATIVE APPLAINCES FOR INSTALLATION IN FIREPLACES.

Subpart 1. IFGC Section 602.1, General. This subpart is being repealed because the amendment in the current rule is no longer necessary. The 2012 IFGC has updated this portion of the code to reflect what is in our current rule so we no longer need to amend this section. Using the 2012 IMC language will ensure Minnesota's installation standards and practices for decorative appliances are consistent with industry standards and practices.

1346.5630 SECTION 630 (IFGC), INFRARED RADIANT HEATERS.

Subpart 3. IFGC Section 630.3, Combustion and ventilation air. This subpart is modified by adding the word "Combustion" to the section title to coordinate with changes made to the 2012 IFGC. Also, this section was renumbered in the 2012 IFGC, as reflected in the proposed subpart.

1346.5631 SECTION 631 (IFGC), BOILERS.

This rule part is being repealed because the standards are now addressed in section 631 of the 2012 IFGC. This amendment to the 2006 IFGC is no longer necessary.

1346.5800 CHAPTER 8, REFERENCED STANDARDS.

Subpart 1. Modifications to IFGC chapter 8. This subpart is being repealed because the standards listed in the subpart are now included in chapter 8 of the 2012 IFGC. As a result, this subpart is no longer necessary.

Subp. 2. Supplemental standards. Two standards are deleted from this subpart because they have been added to Chapter 8 of the 2012 IFGC. The referenced edition of the NFPA 54 is updated from the 2009 edition to the 2012 edition to provide the most current version.

1346.6000 CHAPTER 9, MANUFACTURED HOME PARK/COMMUNITY FUEL GAS EQUIPMENT AND APPLIANCE INSTALLATION.

This rule part is modified by renumbering the chapter number from 10 to 9 and changing the corresponding references associated with the numbering change. This numbering change is necessary to coordinate with chapter numbering changes made in the 2012 IFGC. The term "appliance" has been added throughout the rule part to coordinate with a new definition for 'appliance" in the 2012 IFGC, as explained above. Additionally, section references are deleted and replaced with subpart numbers because those sections have newly been assigned subpart numbers in this proposed rule for clarity.

EFFECTIVE DATE.

In accordance with Minnesota Statute, section 326B.13, subdivision 8, the Commissioner has determined that it is necessary to establish January 24, 2015, as the effective date of the proposed Minnesota Mechanical Code. If a public hearing is held on the code, the date of January

24, 2015, is approximately 90 days after October 24, 2014, the projected publication of the rule in the State Register. The commissioner has determined that the earlier effective date is necessary to protect public health and safety:

Because the new Minnesota Residential Building Code is projected to have an effective date of January 24, 2015, it is necessary that the Minnesota Mechanical Code become effective at the same time so there is no confusion or misapplication of specific requirements by mechanical system installers and municipal inspectors. This is important because the residential building code makes reference to the mechanical code and both are based upon 2012 editions that assume correlated provisions. If this does not occur, the new Minnesota Residential Building Code will go into effect with the existing 2007 Minnesota Mechanical Code. This could cause confusion and present problems specifically in areas of make-up air and subslab soil exhaust systems.

One of the statutory considerations is that adequate time is available for training individuals to comply with and enforce the rule. As the proposed Mechanical Code provisions are now in print, various formal and informal training opportunities on the new code for installers and inspectors will begin the Spring of 2014 and continue through February 2015.

CONCLUSION

Based on the foregoing, the proposed rules are both needed and reasonable.

5-15-14
Date

Ken B. Peterson
Commissioner

This Statement of Need and Reasonableness was made available for public review on May 15, 2014.

EXHIBIT A

List of 1346 Mechanical/Fuel Gas Code Committee Members

Name	Association	Committee title/role
Scott Nelson	Minnesota Department of Labor and Industry	Chair
Don Sivigny	Minnesota Department of Labor and Industry	Co-Chair
Michael Alexander	BOMA	Committee Member
Jared Ellingson,	AMBO	Committee Member
Kirk Luthe,	AMBO	Alternate
John Lampert	MAPMO	Committee Member
Jon Knudson	MAPMO	Committee Member
Tim Manz	ASHRAE	Committee Member
Nirmal Jain	ASHRAE	Alternate
Mark Sigel	MMCA	Committee Member
Gary Thaden	MMCA	Alternate
Rafi Sohail	Utilities	Committee Member
Ben Sherman	Utilities	Alternate
Kent Schneider	SMACNA	Committee Member