

Department of Public Service, Energy Division

**In the matter of the Proposed
Amendment of the Rule of the
State Department of Public Service,
Energy Division Governing Residential
Thermal Insulation Standards**

**STATEMENT OF
NEED AND
REASONABLENESS
March, 1989**

The Commissioner of the Minnesota Department of Public Service proposes to adopt amendments to Minnesota Rules Chapter 7640 (formerly designated as Minnesota Rules Chapter 4155) without a public hearing. The Commissioner has determined that the proposed amendment of these rules will be non-controversial in nature and has elected to follow the procedures set forth in Minnesota Statutes sections 14.22 to 14.28. The above-captioned proposed rules are amendments to the existing Minnesota Residential Thermal Insulation Standards.

Authority

The Commissioner is authorized by Minnesota Statutes sections 325F.20, subdivision 1, and 325F.21, subdivisions 1 and 2, to establish standards for the quality, safety, installation, and labeling of thermal insulation products. Furthermore, these statutes authorize the establishment of test programs and procedures to ensure that standards established by this chapter will be met.

History

The administrative rules establishing standards governing the manufacture of all thermal insulation for residential buildings that is offered for sale in Minnesota were adopted on November 30, 1985. The rules were amended on June 30, 1987 and again on April 30, 1988. Since the inception of these rules, approximately 70 manufacturers have filed with the Department of Public Service.

The Department began the rule modification process in November 1988 by printing a notice in the State Register (13 S.R. 1342) soliciting comments from industry members concerning the rules governing this program. This current revised version of Minn. Chap. 7640 is non-controversial in nature and primarily will clarify existing language and define terms. Several standards and specifications have either been updated or amended by standard writing organizations.

Summary

The proposed rule amendment is a revision to Minnesota Residential Thermal Insulation Standards: clarifying and simplifying existing language, definitions, and applications; updating testing standards and procedures; identifying industry members' quality assurance programs; and clarifying performance testing requirement for radiant barrier products. In addition, a few editorial changes are proposed by the Revisor of Statutes to conform with current style regulations.

Small Business

The adoption of these amendments will affect small businesses in Minnesota. The Department has evaluated the effect of the proposed rules on small businesses and has considered each of the methods prescribed by Minnesota Statutes Section 14.155, subd. 2, for reducing the impact of the rules on small businesses. Small businesses would benefit from the proposed rule, since the required frequency of testing is reduced, resulting in less stringent compliance, schedules, and deadlines in conformance with Minnesota Statutes section 14.115, subd. 2(a) and (b). The proposed rule will simplify reporting requirements addressed by Minnesota Statutes section 14.115, subd. 2(a), (b), or (c). The Department is taking steps to simplify all reporting requirements. Minn. Rules Chap. 7640 requires performance standards for all insulation product types in conformance with Minnesota Statutes section 14.115, subd. 2(d). Minnesota Statutes section 14.115, subd. 2(e) requires the Department to consider exempting small businesses from any or all requirements of the rules. To assure that insulation products sold or installed in the state are safe and effective, it is essential that all manufacturers of insulation be subject to the requirements of these rules. To exempt some businesses from these requirements would raise the possibility that insulation products could be sold and installed in Minnesota which were neither safe nor effective. Thus, the Department concludes that small businesses cannot be exempted from any or all requirements of these rules.

Public Monies

The implementation of these amendments will not require the expenditure of public monies in excess of \$100,000 by local bodies in either of the two years following their adoption and meets the test of the exceptions to fiscal notes as provided by Minnesota Statutes 3.983 subpart 2. The proposed amendments would not have any impact on agricultural land.

If a public hearing is required, Bruce Nelson, Senior Engineer and Narv Somdahl, Manager of the Conservation Programs section of the Energy Division will appear on behalf of the proposed rules at the hearing. They will testify regarding the need for and reasonableness of the proposed rules.

STATEMENT OF NEED AND REASONABLENESS

INTRODUCTION

The Department of Public Service, Energy Division proposes to modify the rules governing the Minnesota Residential Thermal Insulation Program.

A goal of the suggested revisions is to assure quality control in the manufacture of insulation products sold in Minnesota. The means being proposed to achieve this goal in these rule revisions is to identify the current quality assurance and testing standards currently in use by industry members.

GRAMMATICAL CHANGES

Some grammatical and editorial changes found hereinafter are proposed by the Revisor of Statutes to conform with current style regulations. Minn. Rules Chap. 14 requires that all rules and regulations do not repeat existing rules and regulations in order to avoid redundancy and repetitiveness.

REPLACEMENT OF ASTM STANDARDS

All ASTM standards that are within these rules have been updated to conform with the most recent versions. It is reasonable to identify the latest standards because all testing laboratories use only the most recent ASTM standards.

Chap. 7640.0110 Applicability

Subpart 4 (A) - addition of the term "installation standards" to which industry members must conform.

Need & Reasonableness - This clarification recognizes that the rule requirements consist of both quality standards and installation standards. Referencing both standards will result in easier use of Minn. Rules Chap. 7640. Minnesota Statutes section 325F.20 subdivision 1 authorizes the rule to include installation standards.

Chap. 7640.0120 Definitions

Subpart 10 - definition of "FS" deleted.

Need & Reasonableness - This definition occurs in only one place in the rules (7640.0130, subp. 5(D)) and is sufficiently identifiable. A separate definition here is redundant and its elimination would simplify use of these rules.

Subpart 19a - definition of "Quality Assurance Program" added.

Need - This definition has been added to clarify its usage as proposed in this rulemaking in Minn. Rules Chap. 7640.

Reasonableness - All industry members must have a definition of a Quality Assurance Program in order to comply with the proposed requirement (Minn. Rules Chap. 7640) that all manufacturers have a quality assurance program in place. This definition is derived from the American National Standards Institute and American Society for Quality Control standard ANSI/ASQC Z-1.15-1979.

[Attachment A]

Chap. 7640.0120 Definitions (cont.)

Subpart 20a - definition of "Radiant Barrier" added.

Need - This definition has been added to clarify its usage in Minn. Rules Chap. 7640.

Reasonableness - A definition of Radiant Barrier is necessary so that industry members can comply with Minn. Rules Chap. 7640. This definition is copied from the ASTM draft standard, "Use and Installation of Radiant Barrier Systems in Building Constructions, September 27, 1988. [Attachment B]

Subpart 20b - definition of "Reflective Insulation" added.

Need - This definition has been added to clarify its usage as proposed in Minn. Rules Chap. 7640.

Reasonableness - All industry members must be able to understand what Reflective Insulation means in relation to a manufacturer's operation and its anticipated compliance with Minn. Rules Chap. 7640. This definition is derived from the ASTM draft standard, "Use and Installation of Radiant Barrier Systems in Building Constructions, September 27, 1988. [see Attachment B]

Chap. 7640.0130 Insulation Materials Standards

Subpart 2 (B)(4) - Deletion of requirement for manufacturers without approved laboratory testing facilities to contract for annual surprise inspections.

Need - The deletion of this requirement is needed because the requirement is unnecessary for a sufficient thermal insulation manufacturing quality assurance program. The quality assurance standard ANSI/ASQC Z-1.15-1979 (Attachment A) does not require manufacturers without approved laboratory testing facilities to have a contract for a laboratory to perform annual surprise inspections.

Reasonableness - A contract for a laboratory to perform periodic surprise inspections is one element of some thermal insulation manufacturers' quality assurance programs. However, the department has found that this element is, in many cases, not necessary for a complete quality assurance program. One exception is the manufacture of loose-fill cellulose, where a program of surprise inspections is required by Minn. Rule Chap. 7640.0130 subp. 3 A (2). The department has also found that a program of surprise inspections is by itself not a sufficient quality assurance program.

Subpart 2 (C)(3) - Aged R-value testing for foam plastic insulations.

Need - Foam plastic insulations incorporating chloro-fluorocarbons (CFC) blowing agents may lose a significant percentage of their initial R-value with aging. This requirement will assure that "other" insulations will be subject to the same testing requirements as imposed by Minn. Rules Chap. 7630 for extruded polystyrene, faced and unfaced polyisocyanurate and urethane products.

Reasonableness - This requirement is similar to FTC rules part 460.5 (a)1, required for residential insulation products. [Attachment C]

Chap. 7640.0130 Insulation Materials Standards (cont.)

Subpart 2 (D) - All manufacturers, and installers of insulation products whose manufacture is completed at the jobsite, must have a quality assurance program.

Need - A manufacturing quality assurance program is essential for the consistent production of thermal insulation products that meet the standards required by Minn. Rules Chap. 7640. The proposed amendment is needed to provide a standard for quality assurance programs for all types of insulation products. It is also needed in the event, upon testing of a product authorized by Minn. Stat. 325F.21, subp. 2, the department finds a product which does not meet the standard. In this case, the department can work with the manufacturer to improve its quality assurance program, using the criteria included in the referenced standard.

The manufacture of some specific insulations is not complete until just prior to installation. These include spray-applied fibrous insulations to which water and/or adhesives are added as they are sprayed, foam plastics which consist of two or more chemical components mixed as they are sprayed and others. A requirement for a quality assurance program for this jobsite completion of manufacture is needed to assure that insulation meeting quality standards is installed.

Reasonableness - All manufacturers with products currently filed with the Minnesota Insulation Standards Program have quality assurance programs.

All installers of insulation currently filed for use in Minnesota whose manufacturer is completed at the jobsite have quality assurance programs. The proposed rule does not set specific criteria for the makeup of a quality assurance program. Those criteria are broadly identified in the American National Standards Institute and American Society for Quality Control standard ANSI/ASQC Z-1.15-1979.

Subpart 3 (A)(2)(a - d) - Follow-up agreement purposes restated and clarified.

Need - The existing rules are dissimilar to the follow-up programs which currently exist for cellulose. The proposed rule would modify the standards for follow-up programs which the department has already found to be acceptable. A consultant report prepared in 1987 recommended these specific modifications. [Attachment D]

Reasonableness - These requirements are presently identical to those of Underwriters Laboratories and the U.S. Testing Company follow-up agreements which the Department has found to be acceptable.

Subpart 5 (C) - Aged R-value exception to ASTM 591-85 recognized.

Need - The aged R-value specified in the ASTM standard is unreasonable. An unfaced polyisocyanurate product cannot maintain its CFC content when tested for aged R-value as well as a faced polyisocyanurate product can. Therefore, unfaced polyisocyanurate is unable to maintain its R-value and meet the criteria specified in the ASTM standard. This position has been clearly expressed by Dow Chemical Company. [Attachment E]

Reasonableness - The measured aged R-value of unfaced polyisocyanurate products must be listed on their respective FTC fact sheets. Therefore, consumers will have information as to the tested aged R-value of this product.

Chap. 7640.0130 Insulation Materials Standards (cont.)

Subpart 5 (G) - Acceptance of ICBO criteria for foam plastic insulation for meeting testing standards of Minn. Rule Chap. 7640.0130 subp.5.

Need - The International Council of Building Officials requires that the manufacturer submit test data showing conformance of the product with the applicable ASTM standard. If a product has a current ICBO listing, the testing required by Minn. Rule Chap. 7640 will have already been conducted. Therefore, there is no need to repeat the testing.

Reasonableness - ICBO Acceptance Criteria for Foam Plastic, October, 1982, requires testing identical to Minn. Rule Chap. 7640. [Attachment F]

Subpart 7 A - D - Reflective foil insulation standards reorganized.

In order to reflect the different requirements and standards for various types of insulation within this subpart, this subpart identifies multi-sheet and single sheet reflective insulation. It also individually identifies requirements for radiant barrier products.

Subpart 7 A :

A (2): clarifies that thermal performance tests pursuant to ASTM C 976-82 or ASTM C 236-87 do not apply to radiant barrier products.

A (6): temperature differential language is redundant here as it is already recognized within the cited ICBO standard.

Need - This subpart contains the criteria which are common to all reflective foil products.

Reasonableness - There is no content change from existing rules.

Subpart 7 B - C:

Reflective insulation thermal performance criteria.

B: temperature standard specifically for multi-sheet insulation is identified.

C: ASTM E 408 is cited as a standard for single sheet reflective insulation.

Need & Reasonableness - These criteria are identical to those in FTC Rule part 460.5 (b) & (c). [See attachment C]

Subpart 7 D: Radiant barrier products thermal performance criteria.

Need - The thermal performance of radiant barrier products is different from reflective insulation products. At this time there is no specific standard that is generally accepted for determining the thermal performance of radiant barrier products. By this proposed amendment, the rule would recognize this difference and furthermore recognize the Federal Trade Commission interpretation of the thermal performance for radiant barriers.

The language mandated in the second paragraph of the proposed rule is needed because the FTC Rule 460.13 states that any disclosures required must be mandated by State law or rule [See attachment C]. Some radiant barrier manufacturers have listed the thermal performance of their products to be the same as if it were installed as single sheet reflective insulation. The department has indicated that it believes that this practice is not in conflict with the requirements of Minn. Rules Chap. 7640. The disclosure statement is necessary to notify the consumer that the installed R-value for the product may be different than listed on the FTC fact sheet.

Reasonableness - The proposed amendment acknowledges that thermal performance of radiant barrier products is different from reflective insulation products. It defers interruption of the method of testing and labeling of thermal performance of radiant barrier products to the Federal Trade Commission.

The proposed disclosure is simply a statement of fact, and should not burden any radiant barrier manufacturer.

Chap. 7640.0130 Insulation Materials Standards (cont.)

Subpart 8 (E & F) - "Other insulation" requirement for manufacturers to specifically test and attest to product safety has been eliminated and replaced with a broader requirement.

Need - The existing rule has criteria which are impossible to meet. An approved laboratory cannot certify that the product is "safe and effective" because no relevant test criteria exists on which to base this determination. The Department needs the statement proposed in this rule from the manufacturer to assure that the product is safe and effective.

Reasonableness - The manufacturer should be aware of a product's attributes and should be able to provide such a statement.

Chap. 7640.0140 Requirements for Insulation for Special Applications

Subpart 4 - R-value testing for pipe insulation not necessary.

Need & Reasonableness - FTC Rule part 460.2 does not require R-value testing or labeling for pipe insulation [See attachment C]. If a manufacturer does list an R-value, the manufacturer should be able to provide substantiation as required by Minn. Stat. sec. 325F.22, subd. 3.

Chap. 7640.0150 Reporting Requirements

Subpart 1 (D) - waiving of testing for similarly composed material.

Need & Reasonableness - it is recognized that if a manufacturer has more than one insulation product composed of essentially the same material, with the only difference being size or shape, only one of those products need be tested.

Subpart 3 (B)(5) - identification of local customers.

Need - In accordance with Minn. Stat. sec. 325F.21, subd. 2, the Department can obtain samples of the insulation product. In order to identify a source for product procurement, the Department must know where it is available in the state.

Reasonableness - The manufacturer should be able to identify its customers. Such information received by the Department will be maintained with the utmost secrecy. The proposed rule requires the department to maintain this information with the strictest confidence. Thus the industry member can be assured that no unauthorized disclosure of trade secret information. The Department has a trade secret policy [Attachment G] which would govern its actions in this regard.

Chap. 7640.0160 Application and Installation Standards

Subpart 2 - Standards for installation are adopted

Need - These standards are needed to provide uniform minimum criteria for installation of the referenced products.

Reasonableness - The referenced standards are consensus standards adopted by ASTM. These standards are not intended to be a replacement for installation instructions but are meant to be used in conjunction with such instructions.

Chap. 7640.0170 Labeling

Subpart 1 - FTC R-value rule conformance requirement.

Need - The inclusion of this requirement in Minn. Rules Chap. 7640 is needed to make all industry members doing business in Minnesota aware of the FTC rule. It is also needed so the department has clear authority to require conformance to the provisions of the FTC R-value rule before making a determination that a filing of a product under the Minnesota Insulation Standards Program is complete.

Reasonableness - The FTC R-value rule already applies to all residential thermal insulation products sold in the United States. All manufacturers with products currently having a completed filing with the Minnesota Insulation Standards Program currently comply with this requirement.

Subpart 2 - false and misleading statements

Need - This amendment is needed to assure that all industry members are aware of relevant state law.

Reasonableness - The proposed rule is a restatement of statutory language utilized in Minnesota Statutes. There is no change in authority implied in this reference.

Subpart 3 - labeling under follow-up programs.

Need - This amendment is needed to assure that, when required by Minn. Rules Chap. 7640, all products sold in Minnesota are manufactured under the provisions of a follow-up program. The laboratories which are contracted for follow-up service allow the use of their labels on the products manufactured under their follow-up inspection. Without the proposed amendment it is possible, hypothetically, that a manufacturer could sell in Minnesota a product without the laboratory's label. That particular product may or may not have been produced under that laboratory's follow-up inspection.

Reasonableness - The proposed amendment does not impose any additional requests for labeling that are not already in use by the industry.