



**[BILLING CODE 6750-01-S]**

**FEDERAL TRADE COMMISSION**

**16 CFR Part 460**

**[RIN 3084-AB40]**

**LABELING AND ADVERTISING**

**OF HOME INSULATION: TRADE REGULATION RULE**

**AGENCY:** Federal Trade Commission.

**ACTION:** Proposed Rule.

**SUMMARY:** The Federal Trade Commission (“Commission”) seeks comments on proposed amendments to its Trade Regulation Rule Concerning the Labeling and Advertising of Home Insulation (“R-value Rule” or “Rule”). This document provides background on the R-value Rule and this proceeding; and discusses public comments received by the Commission and solicits further comments on the proposed amendments to clarify, streamline, and improve the Rule’s requirements.

**DATES:** Written comments must be received on or before March 23, 2018. Parties interested in an opportunity to present views orally, should submit a request to do so as explained below, and such requests must be received on or before March 23, 2018.

**ADDRESSES:** Interested parties may file a comment online or on paper, by following the instructions in the Request for Comment part of the **SUPPLEMENTARY INFORMATION** section below. Write “R-value Rule (No. R811001)” on your comment, and file your comment online at <https://ftcpublic.commentworks.com/ftc/R-value>, by following the instructions on the web-based form. If you prefer to file your comment on paper, mail your comment to the following address: Federal Trade Commission, Office of the Secretary, 600 Pennsylvania

Avenue, NW, Suite CC-5610 (Annex E), Washington, DC 20580, or deliver your comment to the following address: Federal Trade Commission, Office of the Secretary, Constitution Center, 400 7th Street, SW, 5th Floor, Suite 5610, Washington, DC 20024.

**FOR FURTHER INFORMATION CONTACT:** Hampton Newsome, Attorney, (202) 326-2889, Division of Enforcement, Bureau of Consumer Protection, Federal Trade Commission, 600 Pennsylvania Avenue, NW, Washington, DC 20580.

**SUPPLEMENTARY INFORMATION:**

**I. Background**

The Commission promulgated the R-value Rule in 1979 to address the failure of the home insulation marketplace to provide essential pre-purchase information to consumers, primarily an insulation product's "R-value."<sup>1</sup> An insulation product's "R-value" rates the product's ability to restrict heat flow and, therefore, reduce energy costs. The higher the R-value, the better the product's insulating ability. R-value ratings vary among types and forms of home insulations and even among products of the same type and form.

For insulation marketed for use in residential structures, the Rule requires R-value disclosures, directs manufacturers to substantiate the claims made in these disclosures, and prohibits certain claims unless they are true and non-misleading. Specifically, the Rule requires insulation sellers to disclose the insulation product's R-value and related information based on uniform, industry-adopted test procedures.<sup>2</sup> This information enables consumers to evaluate the performance and cost-effectiveness of competing products.

---

<sup>1</sup> The Commission promulgated the R-value Rule pursuant to section 18 of the Federal Trade Commission Act ("FTC Act"), 15 U.S.C. 57a. The Rule became effective on September 30, 1980. *See* 44 FR 50218 (Aug. 27, 1979).

<sup>2</sup> Additional Commission rules or guides may also apply to home insulation sellers. *See, e.g.,* 16 CFR Parts 701 and 702 (warranty-related rules), and 16 CFR Part 260 (Guides for the Use of

## **A. Products Covered**

The R-value Rule covers all “home insulation products.” Under the Rule, the term “insulation” includes any product “mainly used to slow down heat flow” from, for example, a heated interior through exterior walls to the outside.<sup>3</sup> The Rule covers most types of insulation marketed for use in residential structures.<sup>4</sup> It does not cover insulation marketed for use in commercial (including industrial) buildings. In addition, it generally does not apply to non-insulation products with insulating characteristics, such as storm windows or storm doors.

Home insulation falls into two basic categories: “mass” and “reflective.” Mass insulations reduce heat transfer by conduction (through the insulation’s mass), convection (air movement within, and through, the air spaces inside the insulation), and radiation. Reflective insulations (primarily aluminum foils) reduce heat transfer by radiation, when the insulation is installed facing an airspace. Within these basic categories, home insulation is made from various materials (*e.g.*, fiberglass, cellulose, polyurethane, aluminum foil) and forms (*e.g.*, batt, dry-applied loose-fill, spray-applied, board stock, multi-sheet reflective).

## **B. Covered Parties**

The Rule applies to home insulation manufacturers, professional installers, retailers who sell insulation for do-it-yourself installation, and new home sellers, including sellers of

---

Environmental Marketing Claims). Further, Section 5 declares that unfair or deceptive acts or practices are unlawful, and requires that advertisers and other sellers have a reasonable basis for advertising and other promotional claims before they are disseminated. *See Deception Policy Statement*, appended to *Cliffdale Assoc., Inc.*, 103 FTC 110, 174 (1984); and *FTC Policy Statement on Unfairness*, appended to *International Harvester Co.*, 104 F.T.C. 949 (1984); and *Policy Statement Regarding Advertising Substantiation*, 49 FR 30999 (1984), *reprinted in Thompson Medical Co.*, 104 F.T.C. 839 (1984).

<sup>3</sup> See 16 CFR 460.2.

<sup>4</sup> The Rule does not cover pipe insulation or any type of duct insulation except for duct wrap. See 44 FR at 50238, n. 170 (the Commission explained that pipe insulation is used primarily to reduce condensation).

manufactured housing (“covered entities”). It also applies to laboratories that conduct R-value tests for those who base their R-value claims on these test results.

### **C. The Rule’s Basis**

The Commission first issued the R-value Rule in response to a variety of unfair or deceptive acts or practices in the insulation industry. Specifically, the Commission found that many sellers: (1) failed to disclose R-values, impeding informed purchasing decisions and misleading consumers who based their purchases on price or thickness alone; (2) exaggerated R-value disclosures and often failed to account for material factors (*e.g.*, aging, settling) that reduce thermal performance; (3) failed to inform consumers about an R-value’s meaning and importance; (4) exaggerated fuel bill savings and failed to disclose that savings vary depending on consumers’ particular circumstances; or (5) falsely claimed that consumers’ insulation purchases would qualify for tax credits, or that products had been “certified” or “favored” by federal agencies.<sup>5</sup>

### **D. The Rule’s Requirements**

The Rule requires covered entities to disclose R-value and related information (*e.g.*, thickness, coverage area per package) on package labels and manufacturers’ fact sheets. Covered entities must derive these disclosures from tests conducted according to one of four specified American Society of Testing and Materials (“ASTM”) test procedures that measure thermal performance under “steady-state” (*i.e.*, static) conditions.<sup>6</sup> Industry members must conduct tests for mass insulation products on the insulation material alone (excluding any airspace) at a mean temperature of 75° F. The Rule requires testing for reflective insulation

---

<sup>5</sup> 44 FR at 50222-24.

<sup>6</sup> The Rule (Section 450.5) incorporates by reference ASTM test procedures, which ASTM reviews and revises periodically. For mass insulations, the required tests are ASTM C177, C236, C518, and C976. 44 FR at 50226, n. 189.

products according to either ASTM C 236 or ASTM C 976, which generate R-values for insulation systems (such as those that include one or more air spaces).<sup>7</sup> The Rule's R-value tests account for factors that can affect insulation's thermal performance. For example, tests for polyurethane, polyisocyanurate, and extruded polystyrene insulation account for aging, and tests for loose-fill insulation products reflect the effect of settling.<sup>8</sup>

The Rule also requires specific disclosures on manufacturer product labels and fact sheets, installer receipts, and new home seller contracts. For example, insulation labels must display the product's R-value and the statement "R means resistance to heat flow. The higher the R-value, the greater the insulating power."<sup>9</sup> The Rule also requires that certain affirmative disclosures appear in advertising and other promotional materials (including those on the Internet) containing an R-value, price, thickness, or energy-saving claim, or comparing one type of insulation to another. For example, if an advertisement contains an R-value, it must disclose the type of insulation being sold and the thickness needed to obtain that R-value, as well as the statement: "The higher the R-value, the greater the insulating power. Ask your seller for the fact sheet on R-values." In addition, if an advertisement contains an energy saving claim, it must disclose: "Savings vary. Find out why in the seller's fact sheet on R-values. Higher R-values mean greater insulating power."

The Rule also requires manufacturers and other sellers to have a "reasonable basis" for any energy-saving claims they make on labels or in advertising.<sup>10</sup> Although the Rule does not specify how they must substantiate such claims, the Commission explained when issuing the

---

<sup>7</sup> The Rule requires that the R-value of a single-sheet reflective insulation product be tested under ASTM E408 or another test method that provides comparable results.

<sup>8</sup> 44 FR at 50219-20, 50227-28.

<sup>9</sup> 16 CFR 460.12(c).

<sup>10</sup> See Section 16 CFR 460.19.

Rule that scientifically reliable measurements of fuel use in actual houses, or reliable computer models or methods of heat flow calculations, would meet the reasonable basis standard.<sup>11</sup> Sellers other than manufacturers can rely on the manufacturer's claims unless they know, or should know, that the manufacturer lacks a reasonable basis for their claims.

## **II. Regulatory Review**

The Commission reviews its rules and guides periodically to ascertain their costs and benefits, regulatory and economic impact, and general effectiveness in protecting consumers and helping industry avoid deceptive claims. These reviews assist the Commission in identifying rules and guides that warrant modification or rescission. As part of its last review in 2005, the Commission issued several amendments to update and improve the Rule. For example, the Commission added a temperature differential requirement for testing, updated tests for reflective insulation, and required new initial installed thickness disclosures for loose-fill insulation.<sup>12</sup>

In 2016, the Commission initiated this regulatory review through the publication of an Advance Notice of Proposed Rulemaking (ANPR).<sup>13</sup> In that Notice, the Commission sought comments on, among other things, the economic impact of, and the continuing need for, the Rule; the Rule's benefits to consumers; and the burdens it places on industry members, including small businesses, subject to its requirements. The Commission received 16 comments in response.<sup>14</sup> In the present Notice, the Commission discusses those comments and proposes several related amendments.

---

<sup>11</sup> 44 FR at 50233-34.

<sup>12</sup> 70 FR 31258 (May 31, 2005).

<sup>13</sup> 81 FR 35661 (June 3, 2016).

<sup>14</sup> The comments are located at: <https://www.ftc.gov/policy/public-comments/initiative-649>. American Chemistry Council (ACC) (#00016 and #00006); EPS Industry Alliance (#00017); North American Insulation Manufacturers Association (NAIMA) (#00011 and #00018); Icynene Corporation (#00019); Conner (#00022); Polyisocyanurate Insulation Manufacturers

Specifically, the Commission proposes to: 1) clarify that the Rule covers products marketed for residential applications, even if those products are originally developed for the commercial market; 2) require marketers to use the Rule’s testing requirements to substantiate any R-value claims for non-insulation products; 3) add information about air sealing and installation to fact sheets; 4) clarify that online retailers must provide labels and fact sheets; 5) eliminate reference to an outdated aging specification; 6) revise the Rule’s provisions addressing the incorporation by reference of ASTM test procedures; 7) eliminate a Rule provision that automatically updates ASTM test procedures; and 8) exempt space-constrained advertising from certain affirmative disclosures.<sup>15</sup>

### **III. Issues Raised by Commenters**

#### **A. Need for and Costs and Benefits of the Rule**

*Background:* In the ANPR, the Commission sought comment on the continuing need for the Rule and its benefits and costs to consumers as well as industry members (including small businesses).

*Comments:* As detailed below, the commenters generally identified a continuing need for the Rule and urged the Commission to retain it. No commenter advocated its repeal. The commenters also described several benefits from the Rule. Finally, though commenters acknowledged that the Rule imposes some costs on industry and recommended several improvements, no commenter argued that these costs outweigh the Rule’s benefits.

---

Association (PIMA) (#00015); Insulation Contractors Association of America (ICAA) (#00013); Vinyl Siding Institute (VSI) (#00014); Extruded Polystyrene Foam Association (XPSA) (#00012); California Investor Owned Utilities (CA IOUs) (#00009); AFM Corp. (#00010); EPS Industry Alliance (#00011); Strauch (#00007); Turk (#00004); and Graen (#00003).

<sup>15</sup> The amendments also make a non-substantive change to section 460.2 (*i.e.*, changing the term “slow down” to “slow”).

Most commenters supported retaining the Rule. For example, XPSA stated that the Rule “protects consumers by setting an even playing field” for insulation advertising claims. The ACC added that the Rule “helps protect consumers from misleading advertising claims and promotes fair competition among manufacturers of residential insulation products.” Others expressed similar views. According to commenter Craig Conner, the Rule helps consumers compare products and predict energy savings, and, without the requirements, “exaggerated and inconsistent” claims would be common. EPS Industry Alliance remarked that the Rule “is essential to the competitive marketplace” because it ensures uniform and accurate information for consumers and industry members.<sup>16</sup>

NAIMA asserted that the Rule may be even more important today than when initially promulgated given record installation numbers; the emergence of new, inexperienced, or irresponsible advertisers; and the growing emphasis on environmental responsibility, energy savings, and pollution reduction. NAIMA warned that, in the Rule’s absence, problematic claims would decrease consumer trust in insulation products and potentially decrease their use. Similarly, the EPS Industry Alliance explained that, with residential and commercial buildings consuming 40% of the country’s energy, the Rule helps ensure consumers use the right insulation amounts to meet energy efficiency and comfort targets.

Commenters also noted the Rule’s requirements have broader implications. XPSA and the California IOUs explained the Rule’s provisions are commonly used in the commercial market, and its required disclosures help ensure compliance. XPSA even noted that the Rule is

---

<sup>16</sup> *See also* ICAA comments. AFM added that the Rule has been instrumental in “providing consumers a simple and effective means to compare the R-value of insulations under . . . standard conditions.”

referenced in the International Energy Conservation Code (IECC), the model energy code adopted by most states.<sup>17</sup>

Commenters also identified many consumer benefits. According to the California IOUs, clearly marked R-values help consumers make educated purchasing decisions, taking into account energy savings and increased home comfort from insulation.<sup>18</sup> EPS Industry Alliance added that the Rule's enforceable and uniform baseline helps consumers make energy decisions.

Commenters pointed to several specific industry benefits. According to NAIMA, the Rule creates a level playing field and promotes industry self-regulation measures.<sup>19</sup> NAIMA also argued that the Rule defines "the standard of conduct without debate or uncertainty." While describing the Rule's benefits, commenters did not identify any significant or unwarranted costs imposed by the Rule on industry. NAIMA, for example, concluded that the Rule does not impose "significant costs on business unless the business violates the Rule and is fined."<sup>20</sup> It added that, while legal reviews necessary to ensure compliant advertising impose some costs, they save costs associated with violations and litigation. AFM added that compliance costs are "low in proportion to sales revenue and thus do not impose significant cost on either manufacturers or consumers." PIMA also observed that the Rule imposes "little or no cost to the suppliers of home insulation or to consumers themselves." Additionally, XPSA asserted that the

---

<sup>17</sup> Commenter Strauch observed that the Rule "has provided very good benefit to consumers in their selection of insulation." Though Strauch questioned whether manufacturers would continue to provide R-value information in the Rule's absence, the commenters did not specifically recommend eliminating the Rule.

<sup>18</sup> NAIMA similarly asserted the Rule helps consumers by allowing competitors to easily challenge deceptive claims. The California IOUs cited to Department of Energy estimates regarding residential energy costs and potential consumer savings from insulation and home sealing.

<sup>19</sup> NAIMA also stated that the Rule provides "an effective tool for leveling the playing field."

<sup>20</sup> ICAA, representing insulation installers, explained that it has not seen "any significant" compliance costs associated with the requirements.

Rule's compliance costs outweigh its benefits and that its testing and labeling requirements are "fair and reasonable." It also noted that the absence of uniform disclosures would increase industry costs significantly.<sup>21</sup> While commenters did not identify any significant costs for consumers, XPSA stated that even if some manufacturers pass compliance costs onto consumers, such costs are small compared to the cost to consumers associated with deceptive claims in the absence of the Rule.

*Discussion:* As the commenters indicated, the Rule benefits consumers and industry members by combating deceptive and unfair practices, creating a level playing field that promotes competition, helping create a marketplace in which industry can more easily self-regulate,<sup>22</sup> furnishing guidelines to industry for product testing and evaluation, and promoting consumer confidence. Commenters also indicated the Rule does not impose significant, unwarranted costs on industry members or consumers. Given these benefits and apparent minimal costs, the Commission has determined to retain the Rule.

## **B. Prevalence of Misleading Claims**

*Background and Comments:* In response to the ANPR, several comments addressed the prevalence of false or misleading claims in the marketplace. For example, XPSA stated there is a "great deal of compliance" with the Rule, and PIMA added that the Rule has "generated a high degree of industry compliance." Though the comments noted general compliance with the Rule, NAIMA indicated that the Rule also provides an effective tool for industry self-regulation to address those deceptive practices still appearing in the market.<sup>23</sup> NAIMA noted its monitoring of

---

<sup>21</sup> XPSA added that, for small businesses, the Rule clearly defines conditions on participating in the residential market.

<sup>22</sup> See section III.B. of this Notice.

<sup>23</sup> Commenter Turk also mentioned experiences with a contractor that did not provide the Rule's required disclosures.

potential compliance problems has revealed some sellers who promote and compare insulation using unlawful or inaccurate claims. NAIMA frequently challenges claims identified through monitoring by sending letters to companies and other entities promoting insulation. According to NAIMA, these warnings have been effective in bringing many claims into compliance. Such efforts, in NAIMA's opinion, "would likely be meaningless if there were not an R-value Rule in place with enforcement provisions behind it."

NAIMA discussed some of the issues revealed by its monitoring. For instance, certain industry segments rely on "outdated studies" or analysis that may not apply to their product. NAIMA also mentioned other problems, including marketers who fail to provide required disclosures (*e.g.*, "savings vary" for savings claims), omitting the basis for comparative claims, and disseminating exaggerated savings claims. NAIMA also noted that some sellers falsely claim their products are tested, approved, and even endorsed by government agencies, such as the Consumer Product Safety Commission and the Occupational Safety and Health Administration. Finally, NAIMA asserted that some industry members provide R-value per inch of thickness claims, thus falsely implying that their product's R-value is linear (*e.g.*, the R-value of 4-inches of insulation is twice that of 2-inches).<sup>24</sup> NAIMA stressed that these practices can erode public trust and confidence and reduce consumer investments in these energy-savings products.

One commenter, Conner, identified additional issues. Conner provided testing data for batt insulation purchased on the open market that, in his view, suggest the labeled R-values were overstated. The measured R-value for all six samples ranged between 92% and 98% of the stated R-values. Though he acknowledged the results might be anomalies, he argued that was

---

<sup>24</sup> The California IOUs urged FTC to coordinate with insulation manufacturers "on a regular basis to ensure compliance" with the Rule's labeling requirements.

improbable. “It is more likely,” he asserted “that testing products ‘off the shelf’ gives different results [than labeled R-values] for some reason.” Conner noted that other studies have demonstrated similar results. The “Thermal Metric Project” conducted six tests of fiberglass insulation and found that the measured R-value averaged about 97% of the labeled R-value. In that study, manufacturers provided the tested samples. The commenter raised several possibilities for these results, including compression in the packaging and the selection of better samples by manufacturers for studies. Conner urged the Commission to conduct additional testing of samples for fiberglass and other insulation types.<sup>25</sup> If the testing demonstrates that compression affects the results, the commenter recommended the Rule require that test results reflect the R-value of products “that reach the market.”

*Discussion:* The comments suggest that, while compliance is generally high, the Rule and associated enforcement efforts help to address violations still occurring in the marketplace. Since the last regulatory review, the Commission has brought enforcement action under the Rule.<sup>26</sup> The FTC also prepares consumer and business education materials to help consumers with their purchasing decisions and aid businesses with their compliance efforts.<sup>27</sup> In addition, as the commenters indicated, industry members currently use the Rule to help identify and address violations. Finally, some competitors have resolved advertising disputes through the

---

<sup>25</sup> Conner’s results do not necessarily identify Rule violations; the R-values appear to meet the Rule’s tolerance provision. *See* Section 460.8 (“no individual specimen of the insulation you sell can have an R-value more than 10% below the R-value shown in a label, fact sheet, ad, or other promotional material”). Nevertheless, the results suggest that the stated R-values for the tested products may be consistently low. The Commission invites further comments on these issues.

<sup>26</sup> *See, e.g., United States v. Enviromate, LLC*, No. 09-CV-00386 (N.D. Ala. Mar. 2, 2009); *United States v. Meyer Enters., LLC*, No. 09-CV-1074 (C.D. Ill. Mar. 2, 2009); and *United States v. Edward Sumpolec*, No. 6:09-cv-378-ORL-36KRS (M.D. Fla. Jan. 9, 2013).

<sup>27</sup> *See, e.g.,* <https://www.consumer.ftc.gov/articles/0107-home-insulation-its-all-about-r-value>.

National Advertising Division of the Better Business Bureau.<sup>28</sup> The Commission therefore plans to retain the Rule and continue to promote compliance through enforcement and business education.

### **C. Coverage**

*Background:* The R-value Rule covers all “home insulation products.” The term “insulation” includes any product “mainly used to slow down heat flow” from, for example, a heated interior through exterior walls to the outside.<sup>29</sup> The Rule covers most types or forms of insulation marketed for use in residential structures. It also applies to insulation sold for use in all types of residential structures, including old or new houses, condominiums, cooperatives, apartments, modular homes, and mobile homes. It does not cover insulation sold for use in commercial (including industrial) buildings; nor does it apply to non-insulation products with insulating characteristics, such as storm windows and doors, caulking, weather stripping, garage doors, or draperies.<sup>30</sup>

*Comments:* In response to the ANPR, several commenters suggested the Commission expand the Rule’s coverage. First, the Vinyl Siding Institute (VSI) recommended broadening the Rule’s coverage to include insulated siding. VSI explained that builders commonly use insulated siding in the residential market to improve energy performance and to comply with the International Energy Conservation Code (IECC). According to VSI, the IECC recognizes insulated siding as a “form of continuous insulation.” VSI recommended the Commission adopt ASTM C1363-97, “Standard Test Method for the Thermal Performance of Building Assemblies

---

<sup>28</sup> See, e.g., *Applegate Insulation (Cellulose Insulation Products)*, Case #5961, NAD/CARY Case reports (June 2016) (press release at <http://www.ascreviews.org/nad-recommends-applegate-discontinue-certain-claims-for-cellulose-insulation-finds-company-can-support-certain-claims>).

<sup>29</sup> See 16 CFR 460.2.

<sup>30</sup> See, e.g., 45 FR 68920 (Oct. 17, 1980) (staff guidance).

by Means of Hot Box Apparatus” for testing the thermal performance of siding. It also offered specific Rule language for testing, representative thickness (“R-values . . . must be established for the specific siding profiles using typical installation configuration”), and disclosures on labels.

Second, XPSA and ICAA recommended the Rule cover insulation sold in the commercial market. Supporting expansion, ICAA noted that commercial building energy use represents 19% of all U.S. consumption. XPSA added that expanded coverage “would not add cost or burden” because the commercial market already generally follows the R-value Rule requirements.

NAIMA also addressed this issue but did not advocate wholesale expansion into the commercial market. Instead, it urged the Commission to clarify that the Rule covers traditional commercial and industrial products to the extent such products are used in residential applications. According to NAIMA, the traditional line between residential and commercial products has blurred. NAIMA’s members have reported that certain rigid board products previously reserved exclusively for commercial and industrial applications appear with greater frequency in residential construction. According to NAIMA, some industry members selling such products in the residential market do not follow the R-value Rule, claiming their products are commercial or industrial products. To address such practices, NAIMA urged the Commission to clarify that “if a product is used in residential insulation applications, there must be compliance with the Rule, even if the lion share of the product’s use is in the commercial and industrial market.”

*Discussion:* Based on the record, the Commission proposes two Rule coverage amendments. First, it proposes to amend the Rule to apply the testing requirements to R-value claims made for any product marketed to reduce energy use by slowing heat flow in residential

buildings. The current Rule only applies to products marketed primarily as insulation. However, the Commission has challenged R-value claims under the FTC Act based on false or unsubstantiated R-value claims for products sold primarily for reasons other than insulation and thus not covered by the Rule.<sup>31</sup> These cases suggest there is a pattern of false or unsubstantiated R-value claims for products other than insulation, such as coatings, siding, and housewrap. The amendment should provide a more effective means to reduce deceptive claims. Marketers acting in good faith will have clear notice of the test procedures they should use to substantiate their R-value claims. At the same time, the amendment will provide the FTC with a more efficient and direct means to challenge R-value claims based on inadequate substantiation.

This amendment would not impose any disclosure, labeling, or additional requirements for non-insulation products beyond the testing requirements.<sup>32</sup> Instead, it would simply require that any voluntary R-value claim made in advertising for a non-insulation product be based on the appropriate tests referenced in section 460.5 of the Rule (*i.e.*, the standard ASTM tests incorporated into the Rule and currently applicable to R-value disclosures for insulation). The Commission can challenge false or unsubstantiated energy efficiency claims as violating Section 5 of the FTC Act. In particular, the Commission has already challenged energy savings claims as unsubstantiated where marketers did not have competent and reliable scientific evidence to support those claims. Accordingly, the Commission expects that most marketers who choose to make R-value claims for various non-insulation products already rely on the appropriate ASTM

---

<sup>31</sup> *United States v. Edward Sumpolec*, No. 6:09-cv-378-ORL-36KRS (M.D. Fla. Jan. 9, 2013); *In the Matter of Kryton Coatings International, Inc. and Procraft, Inc.*, FTC Matter/File Number: 012 3060. Docket Number: C-4052 (June 18, 2002); and *Federal Trade Commission v. Innovative Designs, Inc.*, 2:16-cv-01669-NBF (W.D. Pa. Nov. 4, 2016).

<sup>32</sup> Specifically, as indicated in the proposed amendment to the Rule's Appendix, the requirements of sections 460.6 through 460.21 would not apply to R-value claims for such products.

testing standards. As a result, the Commission anticipates that this amendment would pose little or no additional burden. However, the amendment would promote clarity for marketers regarding their obligation to substantiate R-value claims and provide a check on unscrupulous sellers who seek to gain an unfair advantage by exaggerating their product's R-value based on faulty tests.

The Commission seeks comment on various issues related to this proposal, including whether deceptive R-value claims outside of the Rule's current product scope are prevalent (*i.e.*, widespread) (*see* 15 U.S.C. 57a(b)(3)), whether such an amendment is necessary to address deceptive and unfair practices, whether the test procedures listed in the Rule are applicable and adequate for such claims, whether the proposal would create conflicts with how R-values are generally derived for certain products, and whether such a requirement would impose undue burdens on marketers.<sup>33</sup>

Second, in response to NAIMA's concerns about commercial insulation in the residential market, the Commission proposes to amend the Rule to clarify that products marketed for residential applications are subject to the Rule's requirement. The comments suggest that some products developed and marketed primarily for commercial or industrial structures are also being marketed for residential applications. Such products already fall within the Rule's existing coverage of "home insulation." However, the proposed amendments would clarify this fact to ensure that industry members understand their compliance obligations. The Commission seeks comments on this proposal.

---

<sup>33</sup> The proposal excludes fenestration and fenestration attachments because these products are covered under the rating and certification activities of entities such as the National Fenestration Rating Council (NFRC) and DOE. *See* Energy Policy Act of 1992 (Section 121 of Pub. L. 102-486).

The Commission does not propose extending the Rule to cover insulation marketed and sold solely in the commercial or industrial market because the Commission lacks sufficient evidence of widespread deception to warrant proposing such an expansion.

**D. Additional R-value Disclosures**

*Background and Comments:* Some commenters argued that the Rule fails to adequately inform consumers and industry of factors important to insulation performance, particularly air infiltration and installation. As discussed below, some urged additional explanatory information on required labels and fact sheets to ensure consumers understand the impacts of these additional factors. Others expressed support for the current disclosures.

Two commenters claimed the Rule emphasizes R-value to the detriment of other factors. ACC, representing spray foam manufacturers, argued that too much focus on R-value can “inhibit the public’s understanding of building energy efficiency.” ACC also asserted that industry has generally assumed that a higher R-value is better, believing, for instance, that a perception exists that “twice the amount of insulation will deliver twice the energy savings.” According to ACC, such “thinking is outdated and incorrect” because building codes now recognize that wall and roof assembly performance can be as important as the amount of insulation installed.

Icynene, a foam manufacturer, added that, “by focusing on the limited metric of R-value, the Rule’s disclosures give the impression that this metric alone is enough to gauge energy efficiency, thermal performance, and building comfort.” Icynene explained that, although R-value provides a good comparative metric among similar product categories (*e.g.*, batt to batt, board product to board product), it is inadequate for comparing different product types because a

number of “off the page” assumptions are necessary to make such comparisons.<sup>34</sup> In its view, “the attempt to force all product types to compete solely on the basis of R-value is itself a deceptive practice.”<sup>35</sup> Specifically, Icynene contended that R-value comparisons among different product categories mislead consumers because some products with low R-values provide adequate energy performance through other attributes, such as reduced thermal bridging and air sealing.<sup>36</sup>

Icynene and ACC also argued that the Rule’s disclosures do not adequately address air infiltration. Icynene contended that laboratory-derived R-values fail to take into account “real world” (*i.e.*, installed) performance impacted by factors such as air leakage or convection. According to Icynene, improper air sealing is often the biggest single cost or lost opportunity associated with construction or renovations.<sup>37</sup> Thus, in its view, the “focus on R-value alone leads to product selections that hurt the consumer.” ACC added that an insulation’s air sealing properties can dramatically impact energy savings by reducing or eliminating convective heat

---

<sup>34</sup> Icynene noted that DOE has funded the development of the “Thermal Metric,” which is designed to convey the thermal performance of wall assemblies. In addition, the National Research Council of Canada (NRCC) funded the development of the Wall Energy Rating (WER), a similar method used to illustrate the R-value metric’s shortcoming, and ways in which it could be adapted to better simulate “real-world” energy performance.

<sup>35</sup> Icynene also noted that R-values are put to a variety of uses, including in building energy codes and computer modeling for energy performance. It expressed concern that the R-value Rule unduly affects construction industry practices, to the detriment of other factors that are important to thermal performance.

<sup>36</sup> Icynene referenced technical documents purporting to show that: 1) air leakage can cause as much as a 70% reduction in R-value performance in full thermal testing of wall assemblies; 2) it is unlikely batt-type insulation products will be installed properly and perform anywhere near the rated performance; and 3) even if air permeable insulation products are of a high density, and well installed with a proper air barrier, but are not enclosed on the interior, their performance will decrease by 25 - 40 %.

<sup>37</sup> Icynene further asserted the term “Insulating Power,” used in the Rule’s disclosures, is “extremely misleading” for it assumes that a continuous air barrier exists and that air permeable materials are fully encapsulated and will yield stated R-value.

transfer (air flow) through walls and roof assemblies. Citing to studies, ACC noted inherent differences in air sealing performance among various insulations.<sup>38</sup>

To address these shortcomings, ACC and Icynene urged the Commission to amend the Rule to provide additional information about R-value, insulation, and air infiltration. To combat R-value misperceptions, ACC recommended the Rule clarify that increasing insulation yields diminishing returns and that R-value is only one “way to quantify one physical property” of insulation products.<sup>39</sup> Specifically, ACC suggested the Commission change the label statement “The higher the R-value, the greater the insulating power” to read: “R means resistance to heat flow in laboratory testing. Higher R-values can result in greater insulating power. As installed, other physical properties of insulation like air permeance, air sealing and quality of installation will impact performance.” ACC also recommended the Rule’s disclosures inform consumers that R-value comparisons for dissimilar materials are “less useful.” Icynene suggested that the Rule’s statement be removed altogether.

Icynene recommended new (or revised) consumer Rule disclosures regarding air sealing to ensure that designers, contractors, and others can “take appropriate action on specification of products, air sealing, and encapsulation of materials to get required performance.” In its view, labeling that “goes beyond R-value” would inform consumers about important issues such as

---

<sup>38</sup> ACC asserted “the use of spray foam insulation (and other air impermeable foam insulations) can lead to greater energy savings by eliminating air leakage in parts of the home where the insulation is installed.” ACC cited to the Building Science Corporation’s Thermal Metric project, which is available at: <http://buildingscienceconsulting.com/project/thermal-metric-project>.

<sup>39</sup> Icynene also argued that packaging for most products should provide a date of manufacture, lot number for traceability, and shelf life. Such disclosures would, for example, allow consumers to determine the age of batt insulation. According to Icynene, this insulation does not expand to full thickness if compressed for transport for more than three months. Icynene, however, did not provide any information about whether existing practices are widespread or otherwise unfair or deceptive. Absent such evidence, the Commission declines to increase the Rule’s regulatory burden to require the disclosure of such information.

“continuity of insulation, air tightness and moisture control.” It urged suitable disclaimers for various energy efficiency characteristics of insulation products such as air impermeability, vapor impermeability, or solar reflectance. Icynene also recommended the Commission establish “categories of performance” for characteristics such as air impermeability and vapor permeability to ensure consumers know that attributes other than R-value “are important to energy efficient and durable construction.”<sup>40</sup> It also suggested the Rule require sellers to disclose the conditions necessary to achieve the stated R-value or thermal performance, such as whether an air space is required on one or more sides or whether air sealing is necessary.

Not all commenters advocated for additional disclosures. Several supported the Rule’s current focus on R-value. EPS Industry Alliance, for example, explained that “[a]lthough there is much more information necessary for a fully informed choice, thermal resistance [R-value] is a start and is a valuable common denominator.” XPSA recommended the current affirmative disclosures remain in place and explained that R-values “offer product comparison and quality control measures” and “should not be used to predict building performance.” In fact, it observed that testing standards often clearly state that they do “not purport to address all possible end-use concerns.”

NAIMA, which represents both fiberglass and foam manufacturers, argued against any amendment on this issue. NAIMA complained that some industry members overemphasize insulation’s air infiltration performance and therefore these claims can be misleading. For

---

<sup>40</sup> Icynene noted that the International Residential Code (IRC) and the International Building Code (IBC) have already identified categories for air impermeability and vapor permeability. Icynene suggested the Commission reference these Code requirements to determine if products perform as Code-compliant air impermeable materials. For instance, “Class A: Air Impermeable” would include “air impermeable” products used to bridge gaps between other materials; “Class B: Air Impermeable” would include boardstock products that would contribute to air barrier systems; and “Class C: Air Permeable” would include products that must rely on other elements for air sealing.

example, it asserted that various manufacturers claim that “stopping air infiltration with insulation” is “what really matters.” Some also claim that their insulation will seal entire buildings. In addition, marketers often use the terms “effective R-value” or “real world R-value,” which, according to NAIMA, are purportedly based on “some ad hoc and unscientific method that somehow combines insulation and air sealing in a single value.” NAIMA stated that these claims incorrectly imply that a product’s ability to block air infiltration, and not its R-value, is paramount and that insulation that limits air infiltration performs better overall than other insulations.<sup>41</sup>

In fact, according to NAIMA, the air blocking benefits of particular insulations are often overstated. It cited to a recent study indicating that “sealed walls of the same R-value perform equally well regardless of the type of insulation used.” In addition, the research indicated that no tested wall assemblies, regardless of the insulation type used, acted as a complete air barrier.<sup>42</sup> Furthermore, according to NAIMA, no elements of a building’s thermal envelope – whether walls, attic, foundation, and insulation – “can deliver the desired thermal performance on its own” despite what some advertisements claim. NAIMA stated that insulation cannot solve all air infiltration problems because it is never applied in a way to halt all possible air leakage. Indeed, according to NAIMA, “insulation plays no major role in blocking total air infiltration in a home.” Instead, other materials such as “gypsum board, sheathing, house wrap, and sealing of joints and holes” usually accomplish that function. NAIMA further observed that the FTC has declined to incorporate air infiltration or air leakage into the R-value Rule because of the absence

---

<sup>41</sup> According to NAIMA, some advertisements wrongly “dismiss R-value as a reliable indicator of thermal performance” and encourage consumers to rely on air infiltration performance.

<sup>42</sup> Citing to *Thermal Metric Summary Report*, Building Science Corporation (September 23, 2013) (<http://buildingscienceconsulting.com/project/thermal-metric-project>).

of a reliable, uniform means to measure air leakage, and the fact that thermal performance cannot be measured by leakage alone.<sup>43</sup>

In addition to air infiltration, commenters discussed the relationship between insulation performance and installation. ACC, for instance, argued that inadequate installation can significantly affect performance. For example, compression of fibrous insulation can reduce its effectiveness, and improper depths or failure to ensure contact with proper surfaces can impact spray foam performance. The California IOUs added that installation problems, such as “missing insulation, gaps, or compression,” can lead to lower R-value, and thus higher energy costs and lower home comfort. For instance, failure to cover even small gaps will have a disproportionate effect on thermal envelope performance.<sup>44</sup>

Conner also emphasized the importance of proper installation instructions, particularly for “do it yourself” users. He noted a recent DOE field study conducted in six states demonstrating that about 45% of insulation was poorly installed. He also specifically addressed R-19 fiberglass insulation batts, which are generally 6.25 inches thick and commonly installed in wall cavities measuring 2x6 inches. Conner stated that installers must compress these batts to 5.5 inches to fit them into these wall spaces, thus reducing the R-value by one. Conner also noted that, because manufacturers disclose this fact on their packaging in much “smaller print,” consumers are not likely to notice them.

These commenters therefore urged the Commission to require disclosures about the need for proper installation. The California IOUs recommended labels state: “Consumers should be

---

<sup>43</sup> Citing to 70 FR at 31262.

<sup>44</sup> The California IOUs also noted that installation inconsistent with manufacturer’s instructions violates building codes. In addition, both the California IOUs and Conner noted that the Residential Energy Services Network (RESNET) has a grading scale to help identify the quality of insulation installation.

aware that insulation must be installed properly to maintain its rated performance; poorly installed insulation will reduce the rated R-value and negatively impact the thermal performance of the building.” Finally, to address issues with R19 batts, Conner recommended the FTC require both R18 and R19 to appear equally prominently on the label (*e.g.*, “R19 in floors / R18 in 2x6 wall cavities”).<sup>45</sup>

*Discussion:* Based on the record, the Commission proposes changing the Rule’s fact sheet disclosures to better alert consumers to factors that may affect their heating and cooling costs. The current fact sheets generally advise consumers that their fuel savings depend on a variety of factors, including their climate, type of house, fuel use, and family size. Commenters, however, emphasized that proper insulation installation and home air sealing can also affect fuel costs. Accordingly, the Commission proposes to amend the fact sheets to specifically address these two factors. The Commission, however, does not propose adding this information to product labels because such details would significantly increase the label’s scope and size, potentially decreasing its effectiveness and increasing its burden. The Commission seeks comment on the proposed fact sheet changes, including the amount of time manufacturers would require to make such changes.

The Commission also seeks comment on whether the Rule should require specific disclosures for R-19 batt insulation, as suggested by the comments. Specifically, commenters should address whether labels for these products should disclose that the product’s rating is R-18 when installed in typical wall cavities. Alternatively, commenters should address whether such disclosures should appear on fact sheets instead, or whether any additional disclosures are necessary at all.

---

<sup>45</sup> Alternatively, Conner recommended that manufacturers produce R-19 batts that fit in a 2x6-inch cavity.

The Commission does not propose addressing the air infiltration performance of insulation products. In addition, the Commission does not propose amending label and fact sheet disclosures stating “The higher the R-value, the greater the insulating power.” The Commission has long recognized that the Rule’s uniform R-value test methods do not account for all variables applicable to insulation performance. Despite the R-value rating’s limitations, it provides an important baseline from which consumers can compare various insulation products. The Commission has addressed these and related concerns repeatedly since it first issued the Rule in 1979. Indeed, there are a variety of factors not accounted for in R-value tests, such as the design characteristics and geographic location of the building, the specific application in which the product is installed, outside and inside temperatures, air and moisture movement, installation technique, and others.<sup>46</sup> However, quantifying and providing uniform comparative ratings to reflect these various factors would significantly complicate the Rule’s disclosures and likely confuse consumers, without providing commensurate benefits. Furthermore, commenters expressed significant disagreement regarding air infiltration disclosures.<sup>47</sup>

Although the Commission declines to propose mandatory label or fact sheet disclosures, industry members may voluntarily provide additional information in their advertising about the manner in which their products (or their competitors’ products) perform so long as the information is truthful and non-misleading. For example, if a manufacturer’s product performs

---

<sup>46</sup> See 44 FR at 50226; and 68 FR 41872, 41877–41879.

<sup>47</sup> DOE’s Oak Ridge National Laboratory provides the following, which also raises questions about the importance of insulation’s ability to limit air movement: “The ability of insulation to limit air movement should not be confused with “air sealing.” The insulation reduces air movement only within the space it occupies. It will not reduce air movement through other cracks between building parts. For example, controlling air movement within a wall cavity will not stop air that leaks between the foundation and the sill plate or between the wall joists and a window frame.” See <http://web.ornl.gov/sci/buildings/tools/insulation/r-value/intro>.

better under specific, on-site conditions compared to competing products, the manufacturer may convey that fact in its advertising.

Finally, the Commission proposes to amend section 305.14 to clarify that online insulation sellers must post labels and fact sheets for covered insulation products they sell directly to consumers. Large retailers commonly offer insulation for purchase through their websites. Though the Rule requires retailers to “make fact sheets available to your customers,” it does not specify that fact sheets must be provided for online sales. This amendment will simply effectuate the Rule’s original intent by ensuring online shoppers have access to the same information (both fact sheets and labels) as shoppers in stores. Retailers can make these disclosures through a variety of means, such as by providing information with expandable thumbnail images of package labels and fact sheets or conspicuous links directly to the information. The Commission seeks comment on this change, including on the prevalence of online insulation sales, any burdens associated with providing such information online, and any other associated issues.

#### **E. Aging of Cellular Plastics**

*Background:* The ANPR solicited comments on whether to update the Rule’s requirements for testing aging cellular plastics. Specifically, the Commission asked whether it should amend the Rule to require industry to estimate the long-term R-value of these products using ASTM C1303 (“Standard Test Method for Predicting Long-Term Thermal Resistance of Closed-Cell Foam”).

Certain types of cellular plastics insulations (*e.g.*, polyurethane, polyisocyanurate, and extruded polystyrene boardstock insulations) contain gas that gives them an initial R-value, which decreases over time as the gas diffuses from the material. The length of this aging process

depends on factors such as whether the product is faced or unfaced, the permeability of the facing, and the product's thickness.<sup>48</sup> The current Rule addresses this process by requiring R-value tests on specimens that "fully reflect the effect of aging on the product's R-value." In addition, section 460.5(a)(1) directs industry members to use a portion of the "accelerated aging" procedure in the Government Services Administration (GSA) Purchase Specification HH-I-530A or "another reliable procedure." However, GSA has rescinded its specification, rendering the reference obsolete.<sup>49</sup>

In the 1990's, joint industry and government research efforts generated new test methods (ASTM C1303 and CAN/ULC S770) for estimating aging, often collectively referred to as the LTTR ("long-term thermal resistance") or the "slicing and scaling" method.<sup>50</sup> Unlike the older tests, the LTTR method measures the R-value of thin slices of material. These results are then adjusted with a scaling factor to estimate the R-value of full thickness boards. The test avoids problems with the accelerated aging tests, such as high temperature damage to specimens, but is limited in scope. Specifically, the LTTR method generally applies only to unfaced or permeably-faced polyisocyanurate (polyiso), polyurethane, and extruded polystyrene foam plastic insulations.

---

<sup>48</sup> The EPS Industry Alliance indicated that aging for closed-cell foam insulation is defined as, "the change in thermophysical properties of rigid closed-cell foam plastic with time."

<sup>49</sup> See 44 FR at 50227-50228. The GSA "accelerated" procedure was designed to age these insulations in a shorter period than under real-time conditions. GSA rescinded the specification (along with other insulation specifications) and then required that federally purchased insulations comply with ASTM insulation standards. 68 FR at 41879.

<sup>50</sup> ASTM C1303, "Standard Test Method for Predicting Long-Term Thermal Resistance of Closed-Cell Foam Insulation"; and CAN/ULC S770, "Standard Test Method for Determination of Long-Term Thermal Resistance of Closed-Cell Thermal Insulating Foams."

During the 2005 regulatory review, the Commission considered whether to amend the Rule to require the LTTR method.<sup>51</sup> Ultimately, the Commission declined to do so because commenters significantly disagreed on the adequacy of these tests and the need for additional development. The Commission concluded it was premature to mandate the tests but indicated it had no objection to the voluntarily use of these tests to estimate long-term R-values.

*Comments:* Several commenters addressed whether the Commission should amend the Rule to include the LTTR method. Like the 2005 review, the comments split, with some urging incorporation and others opposing such a change due to issues with the test procedures.

Several commenters urged the Commission to adopt the LTTR method because, in their view, the test is now well-established and would ensure that R-value disclosures for cellular plastic insulations accurately reflect aging effects. For instance, the EPS Industry Alliance acknowledged the Commission’s past concerns about the LTTR method, but explained that the method is now “widely accepted and referenced by the consensus standard authorities in the United States and Canada.”<sup>52</sup> Others (*e.g.*, PIMA, AFM) argued that earlier objections to the method’s adoption no longer hold because the method has undergone, as AFM put it, “continuous improvement” since its initial introduction. In May 2012, for example, ASTM published an interlaboratory research report (RR:C16-1038), which has been used to update ASTM C1303. Several ASTM specifications now reference C1303 (*e.g.*, ASTM C578, ASTM C591, ASTM C1029, ASTM C1126, ASTM C1289, ASTM C1427). Similarly, PIMA

---

<sup>51</sup> 70 FR at 31262-4.

<sup>52</sup> According to EPS Industry Alliance, ASTM C1303 is now well-established as the test method for predicting long-term thermal resistance of rigid board insulation incorporating blowing agents other than air. The test is administered by an adequate number of laboratories, and has been incorporated into several other standards, including ASTM C578, ASTM C591, ASTM C1029, ASTM C1126, ASTM C1289, as well as several CAN/ULC Standards (*e.g.*, CAN/ULC S701; CAN/ULC S704, CAN/ULC S705.1).

explained that Oak Ridge National Laboratory (ORNL) conducted a “ruggedness” study of the test procedure between 2007 and 2012, which led to “a few minor changes in sampling procedures,” increasing consistency and reliability. PIMA asserted that, in the wake of this activity, the test is now “recognized throughout North America as the best and most reliable measure of the long-term thermal performance of closed cell foam insulation.” EPS Industry Alliance further explained that, since the LTTR method’s introduction more than 20 years ago, ASTM committees have met twice annually to “share data, propose modifications, increase accuracy and generally improve and verify the test method.” In addition, experts have compared test data against both predictive mathematical models and long-term verification. Given these improvements, commenters urged the Commission to require ASTM C1303 for determining the R-value for products covered by the test.

Others, however, opposed incorporating the LTTR method into the Rule, questioning the method’s R-value results, coverage, and timeframe. ACC, for example, stated that the spray polyurethane foam (SPF) industry continues to doubt the accuracy of R-value results derived from the method for its products due to faulty assumptions underlying the procedure.<sup>53</sup> Specifically, SPF manufacturers have hypothesized that “the skin formed on the surface of closed-cell spray polyurethane foam acts as an impermeable facer” that increases (or enhances) the product’s long-term thermal performance. Further, these commenters suspect that specimen preparation under ASTM C1303 may destroy this skin, eliminating its benefits. Accordingly, in ACC’s view, the test method may underestimate SPF’s long-term thermal performance. To test this hypothesis, industry members have initiated a five-year research project to measure long-

---

<sup>53</sup> ACC expressed concern “that insufficient data has been generated to demonstrate that ASTM C1303 is an appropriate method for estimating long-term thermal performance for all closed-cell insulation products.”

term thermal performance. According to the comments, interim study results presented in 2015 suggest discrepancies between values generated by ASTM C1303 and real-time thermal performance measurements. Given these preliminary findings, ACC argued against adopting the test.<sup>54</sup> XPSA added that since “the standard deviation around the various iterations of the test method is significant,” the method has not been demonstrated to provide “a uniform means of accurately comparing different cellular plastic thermal insulations.”

Commenters also discussed the procedure’s limited coverage. As noted above, ASTM C1303 and CAN/ULC S770 applies only to unfaced or permeably-faced, materials.<sup>55</sup> PIMA, an advocate of ASTM C1303’s adoption, explained that because the impermeable, or gas-tight, nature of aluminum foil significantly restricts the diffusion of blowing agent gasses from the product over time, ASTM C1303 is not an appropriate test for measuring long-term R-value for such products. Advocates of the method’s adoption acknowledged limitations in its coverage, but recommended the Commission tailor the Rule’s scope by product type.<sup>56</sup> However, XPSA

---

<sup>54</sup> ACC offered to provide updates on this research as it nears completion. Icynene, which also noted that HH-I-530A1 is obsolete, suggested the use of ASTM E1029 or ICC-ES Evaluation Criteria AC377 for spray polyurethane products.

<sup>55</sup> See ACC and PIMA comments. PIMA and ACC noted, for instance, that the C1303 itself states that its application is “limited to unfaced or permeably faced, homogeneous materials,” which covers many rigid closed-cell foam insulation types, including extruded polystyrene, polyurethane, polyisocyanurate, and phenolic. The method, however, does not apply to “impermeably faced rigid closed-cell foams . . . .” According to PIMA, the majority of closed-cell foam insulations available to consumers are unfaced or permeably-faced products covered by the test.

<sup>56</sup> According to PIMA, several widely-used closed-cell foam insulation products with impermeable facers, typically aluminum foil or an aluminum foil laminate, exist on the market. These impermeable faced products include: ASTM C1289 Type 1, Class 1 (Polyisocyanurate with aluminum foil facers over a non-reinforced core foam); and ASTM C1289 Type 1, Class 2 (Polyisocyanurate with aluminum foil facers over a glass fiber reinforced core foam). PIMA also indicated that ASTM C518, the test used for almost all other building thermal insulation products, continues to be the recognized as the thermal performance test method for the aluminum foil faced polyisocyanurate products identified above. PIMA recommended the Rule incorporate ASTM C1303 as the R-value test method for all closed-cell foam products that are

reported that confusion persists in the industry about the LTTR method's scope. Despite longstanding efforts within ASTM and CAN/ULC standards committees, XPSA indicated that no clear consensus has emerged about the procedures' appropriate coverage, and industry members have been unable to agree on a method for all foamed plastic products, impermeably faced and unfaced.

In addition, several commenters noted that ASTM C1303 contains two separate timeframes for measuring R-value results. The first, referred to as the "prescriptive" method, predicts R-value after five years, while the second, the "research" method, calculates R-value at any point in the insulation's life. Because the life of these insulation products is generally much longer than five years, the prescriptive method does not fully reflect the impacts of aging on R-values. To reduce confusion and potential deception, AFM recommended the Commission either require industry disclosure of the test's predicted R-value at a 25-year period under the research method or allow the five-year figure from the prescriptive method with a mandatory disclosure such as "This product will have an R-value lower than the stated R-value after 5 years." XPSA recommended the Rule require measurement of the product's R-value over its serviceable life and not merely a five-year estimate.

XPSA raised two additional concerns. It warned that adopting C1303 or CAN/ULC S770 would eliminate the use of C177 as a "referee method" to address disputed thermal values. Additionally, it argued that, since these tests do not address foams that incorporate pentane as a blowing agent, their adoption would create an unfair advantage for such products.

---

either unfaced or incorporate a permeable facer. However, it also recommended ASTM C518 for products that incorporate an impermeable or gas-tight facer.

Finally, several commenters (AFM, EPS Industry Alliance, and ACC) recommended deletion of Rule references to the obsolete HH-I-530A (GSA Standard). ACC explained that it is an “an outdated and unnecessary method for aging foam insulation specimens.”

*Discussion:* The Commission plans to continue requiring tests on cellular plastic insulations that fully reflect aging on the product’s R-value, as currently indicated in section 460.5. In addition, the Commission proposes eliminating the Rule’s reference to the rescinded GSA aging standard, which appears to be obsolete. However, for the reasons discussed below, the Commission does not propose requiring industry to use only ASTM C1303 or CAN/ULC S770 to measure aging.

The record demonstrates that significant disagreements remain about various aspects of ASTM C1303 and CAN/ULC S770, including their accuracy, scope of coverage, and applicable timeframe. In light of these lingering questions, the Commission is reluctant to mandate that manufacturers use these methods. The Commission invites further comments on all aspects of this issue, including the criticisms raised about ASTM C1303 and CAN/ULC S770 in response to the ANPR, the results of any additional research on the issue, and any other relevant issues. Commenters should address any adverse impacts associated with the proposed removal of the reference to the GSA standard, the impacts from the continued absence of a specific FTC-mandated aging test, whether the Rule should identify ASTM C1303 and CAN/ULC S770 as a safe harbor, the identity and reliability of any tests (other than ASTM C1303 and CAN/ULC S770) currently used by various manufacturers to comply with the Rule’s aging requirement, and whether the Commission should provide any additional clarification regarding the aging requirement.

## **F. Tolerance, Sampling, and Inspection**

*Background:* In the ANPR, the Commission sought comment on the Rule’s testing requirements, including the “tolerance” provision. The Rule’s principal testing provision (§ 460.5) lists the ASTM test procedures that industry members must use to derive R-values. The tolerance provision (§ 460.8) states that no individual insulation specimen can have an R-value more than 10% below the rating displayed on the product’s label. The Commission developed this provision as an alternative to more detailed quality control standards. A violation of this provision indicates that the manufacturer’s quality control procedures are insufficient to reasonably assure consumers they are receiving the represented R-value. The provision does not give industry a license to inflate their R-values above the amount determined through R-value testing. Instead, under the Rule, stated R-values on labels and advertisements must reflect the results of tests performed in accordance with the Rule.

*Comments:* No commenter addressed the Rule’s tolerance provision. However, NAIMA requested that the Commission identify ASTM C390 (“Standard Practice for Sampling and Acceptance of Thermal Insulation Lots”) as an optional testing method for all insulation products. NAIMA stated that this standard’s sampling and inspection provisions provide purchasers a practical level of quality assurance.<sup>57</sup>

*Discussion:* The Commission does not propose amending the tolerance provision or referencing new sampling requirements. While ASTM C390 contains a procedure for sampling and inspection, the commenters did not identify a widespread pattern of noncompliance with the Rule that would justify imposing such additional requirements. In addition, the benefits of

---

<sup>57</sup> Icynene noted that R-value is not easily measured in the field for spray foam insulation and asked whether the tolerance requirement should be written in terms of density to cover field enforcement. However, it offered no details regarding such an amendment or whether such prescriptive requirements in the Rule is necessary to address ongoing deception in the market.

listing ASTM C390 as an optional method are unclear. Manufacturers are responsible for ensuring their products comply with the Rule’s testing, tolerance, and labeling provisions. They must also ensure that their advertised R-values are consistent with their test results and that their products perform as advertised, within the Rule’s parameters. Nothing in the Rule prohibits manufacturers from using ASTM C390 to help them meet these requirements.

### **G. Mean Temperature**

*Background:* Since its promulgation in 1979, section 460.5 of the Rule has required R-value testing at a 75°F mean temperature for most insulation products. In initially issuing this requirement, the Commission explained that “[t]he choice of this particular temperature is based on a significant volume of record evidence that 75°F is already a widely-used test temperature and is incorporated in many voluntary industry standards and federal procurement specifications.”<sup>58</sup> Section 460.5 requires testing at a 50°F temperature differential (*i.e.*, the difference between the hot and cold surface during testing).

*Comments:* Some commenters (*e.g.*, AFM, EPS Industry Alliance, and Icynene) recommended the Rule address insulation performance at mean temperatures lower than 75°F. As discussed below, they suggested the Commission consider either requiring an additional R-value disclosure at a low mean temperature or requiring disclosures about the cold weather performance of certain insulations.

These commenters raised concerns that the Rule’s current mean temperature does not reflect typical conditions. For instance, EPS Industry Alliance argued that the 75°F mean temperature is not a representative condition for most consumer applications. Similarly, AFM contended that the 75°F mean is most typical of warm climates and thus not representative of

---

<sup>58</sup> 44 FR at 50227.

conditions commonly associated with “residential home heating and cooling needs.” Icynene added that insulation used in a warm climate should be tested at a higher temperature, while insulation used in a colder climate should be tested at a lower temperature.

In addition, AFM and EPS Industry Alliance explained that some insulations have much lower R-values under cold conditions, a fact not revealed from the R-values derived with a 75°F mean nor disclosed on FTC-required labels. According to EPS Industry Alliance, some insulation lost 15% of their R-value at a 40°F mean temperature. In its view, the failure to require the affirmative disclosure of such differences misleads consumers and frustrates the Rule’s purpose.<sup>59</sup> To address this issue, both AFM and EPS Industry Alliance suggested the Rule require testing and disclosures at a 40°F mean temperature in addition to the disclosures derived from a 75°F mean. Alternatively, AFM and EPS Industry Alliance suggested the Commission consider a new mandatory disclosure for products that exhibit lower values at cold temperatures (*e.g.*, when tested at a 40°F mean temperature). For example, AFM recommended the following statement: “This product has an R-value lower than the stated R-value in cold conditions.”

*Discussion:* The Commission does not propose revising the Rule’s mean test temperature requirement, nor does it propose requiring specific affirmative disclosures for insulation products that may exhibit lower R-values at low temperatures. Given the temperature differences throughout the country, no one temperature is likely to be sufficiently representative of consumer experiences.<sup>60</sup> To address this problem, the Commission could require two R-value disclosures,

---

<sup>59</sup> EPS Industry Alliance explained that the National Fenestration Rating Council (NFRC) requires that product labels for windows report thermal transmission at 35°F mean temperature.

<sup>60</sup> In initially issuing the Rule, the Commission did not attempt to specify a mean test temperature representative of any particular geographical region or season. Indeed, it reasoned that any attempt to do so would yield results inappropriate for other regions or seasons.

derived at two separate mean temperatures, or require additional disclosures for products that exhibit decreased R-values at lower temperatures as some commenters suggest. Although useful information may be derived by testing at multiple temperatures, the Commission concludes that requiring additional tests would increase the burden to manufacturers without a corresponding benefit to consumers. Specifically, it is not clear that two disclosures would adequately represent the variety of temperatures to which insulation may be exposed. Moreover, it is unclear whether multiple R-value disclosures would improve consumer understanding of the energy efficiency of insulation products. For example, would consumers put more weight on the prevailing mean temperature in their area, the extreme temperatures for their area, or some other factor? Thus, multiple disclosures may result in consumer confusion or discourage consumers from using R-values in their purchases. Therefore, the Commission declines to revise the Rule to require testing at mean temperatures other than 75°F. Finally, nothing in the FTC Act or the Rule prohibits sellers from promoting their products' performance in low temperatures in their advertising. If a seller's products have better R-values than others at low temperatures, they may make truthful, substantiated comparative claims conveying their products' advantages.<sup>61</sup> The Commission seeks further comment on these issues.

#### **H. Disclosures for Reflective Insulation**

*Background:* Reflective insulations, primarily aluminum foils, work by reducing heat transfer when installed facing an airspace. The Rule requires reflective insulation manufacturers to use specific tests to determine R-values, and to disclose those ratings to consumers for

---

Accordingly, the Commission chose a single temperature widely used in industry standards, recognizing the fact that it is not perfectly representative. *See* 64 FR at 48037; and 44 FR at 50219, 50227. In this proceeding, some commenters contend that a 75°F mean is not representative. However, it is likely a 40°F mean is probably similarly unrepresentative.

<sup>61</sup> *See* 68 FR at 41878–41879.

particular applications.<sup>62</sup> Section 460.5(c) requires industry members to test single sheet systems using ASTM E 408-71 (“Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques”), or ASTM C 1371-04a (“Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers”).<sup>63</sup> Section 460.12 of the Rule also requires that labels for reflective insulation include “. . . the number of foil sheets; the number and thickness of the air spaces; and the R-value provided by that system when the direction of heat flow is up, down, and horizontal.

The Rule also covers radiant barrier insulations, which are generally installed in attics facing the open airspace. However, as the Commission has stated, R-value claims are not appropriate for these products because no generally accepted test procedure exists to determine their R-value.<sup>64</sup>

*Comments:* XPSA raised several issues about reflective insulation marketing. Specifically, it argued that reflective insulation sellers do not have adequate performance standards, provide insufficient information to consumers about installation, or use inadequate existing test methods. In addition, XPSA recommended the Commission change the Rule’s terminology for these products and add language stating that these products are not “insulation.”

XPSA explained that reflective insulation performance heavily relies on proper installation and use. Specifically, according to XPSA, R-value claims for reflective insulations require sealed air spaces with little leakage and proper configuration to match specific heat flow

---

<sup>62</sup> See 64 FR 48024, 48038–48039 (Sep. 1, 1999).

<sup>63</sup> For reflective systems with more than one sheet, section 460.5(b) requires the use of ASTM C 1363-97, “Standard Test Method for the Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus,” in a test panel constructed according to ASTM C1224-03, “Standard Specification for Reflective Insulation for Building Applications,” and under the test conditions specified in ASTM C1224-03.

<sup>64</sup> 68 FR at 41889-90.

direction for horizontal air-space applications. Though such conditions exist during testing, XPSA indicated that sellers do not always adequately disclose the installation instructions needed for such conditions. Without clear, comprehensive instructions, consumers may improperly install these products and fail to achieve the represented thermal performance. In XPSA's opinion, the lack of such information "opens the door for unreasonable claims or misguided applications which create a deterrent to the competitive and appropriate use of these materials." XPSA therefore recommended the "reflective insulation" industry provide additional guidance about testing, the air spaces necessary to achieve the claimed performance, the long-term emissivity of reflective surfaces, and the direction of heat flow effects on the claimed R-value for different seasons.<sup>65</sup>

XPSA further noted that reflective products installed behind siding "should not be considered reflective insulation" because of the significant air exchange in those applications.<sup>66</sup> The Rule and test procedures, however, do not clearly identify such limitations. As a result, many of these products are installed in spaces with significant airflow, eroding their thermal performance. According to XPSA, guidance regarding these issues has appeared "by consensus with newly added criteria and limitations to the 2016 ASHRAE Standard 90.1, Section 9.4."<sup>67</sup>

XPSA also alleged that the reflective insulation industry "has not produced adequate performance standards or research to guide the industry in the use of these products to ensure that false or exaggerated claims or inappropriate applications are not made." In addition, it asserted that the industry has not provided data related to product aging, including the impacts of

---

<sup>65</sup> XPSA claimed that the cost to such disclosures should not be more than it has been for manufacturers of "mass" insulation.

<sup>66</sup> Citing to Chapter 26 of the 2013 ASHRAE Handbook of Fundamentals (page 26.12).

<sup>67</sup> XPSA also noted recent Environmental Protection Agency (EPA) efforts to address these issues in the Energy Star program.

dust accumulation and water pitting on long-term performance.<sup>68</sup> XPSA urged the Commission to request this data or “not allow R-value to be claimed for the airspaces associated with these products.” At a minimum, XPSA recommended these products “include transparent statements” about air space construction, the placement of the air barrier in relationship to the airspace and other building envelope enclosure components, the effects of heat flow direction in relation to airspace orientation, and the expected rate of degraded performance over time. These factors, in its view, are known to significantly affect the reflective insulation performance and thus should be disclosed.

In addition, XPSA asked the Commission to reconsider use of the term “reflective insulation.” In its opinion, the term potentially deceives consumers by implying that reflective products deliver the same conductive thermal resistance as mass insulation. In fact, according to XPSA, these products perform differently from mass insulation, and using the term “insulation” tends to obscure the important differences between the two products. It also argued that these products are not necessarily “aluminum” (a term used in the Rule) but are rather products that generally have a high emissivity value, regardless of whether they are aluminum or another material. XPSA suggested the term “reflective film” instead.

Finally, XPSA asked the Commission to clarify that radiant barriers and radiation control coatings are not insulation. Like other excluded products, such as storm windows and doors,

---

<sup>68</sup> XPSA also argued that some market participants misunderstand the air-flow provisions in ASTM C1363. According to XPSA, the procedure’s airflow provisions assure the mixing of air in the test chamber. However, some understand these provisions to replicate or simulate air-exchange across or within portions of the tested assemblies. *See* ASTM C1363, Appendix X1. This concern is primarily an issue when evaluating whether or not air spaces within an assembly will result in the desired or claimed performance. XPSA suggested the development of a new test method or the inclusion of appropriate air exchange rates on airspaces during ASTM C1363 testing. In its view, such changes will ensure that claimed reflective airspace R-values are reasonably consistent with end-use conditions likely to affect thermal value.

radiant barriers and radiation control coatings behave differently from mass insulation products in different climates.<sup>69</sup> In addition, XPSA explained that existing tests do not generate R-values for these products or quantify their benefits in all applications. Therefore, it urged the FTC to provide guidance indicating that energy savings for radiant barrier products are not “in any way equivalent to that of insulation products bearing an R-value.”

*Discussion:* The Commission does not propose any new requirements related to reflective insulations. The Rule already requires labels for these products to disclose the number and thickness of the air spaces and the R-value provided by that system depending on whether the direction of heat flow is up, down, or horizontal. In addition, the Rule requires disclosures related to proper installation. Specifically, labels must contain the statement: “To get the marked R-value, it is essential that this insulation be installed properly. If you do it yourself, follow the instructions carefully.” If instructions are not included, the labels require a statement that “To get the marked R-value, it is essential that this insulation be installed properly. If you do it yourself, get instructions and follow them carefully. Instructions do not come with this package.”

Absent evidence of a clear pattern of deceptive practices or flaws in current requirements, the Commission does not propose adding additional regulatory requirements. Because installation often involves issues specific to particular product types, instructions may vary from product to product. Therefore, the Rule does not generally mandate specific installation instructions for insulation products. Moreover, Section 5 of the FTC Act already addresses deceptive claims. If industry sellers make deceptive claims concerning installation instructions,

---

<sup>69</sup> XPSA noted that the EPA’s Energy Star program excludes radiant barriers, in part, because these products are not assigned an R-value and their cost effectiveness is “highly variable across climate zones and across various installation scenarios.”

the FTC could bring an enforcement action alleging violations of Section 5. Moreover, should future evidence indicate persistent, deceptive installation claims regarding these products, the Commission may consider whether additional Rule provisions are needed to protect consumers.

The Commission also does not propose changes to the current testing requirements for these reflective insulations. Although XPSA claimed that some industry members misunderstand certain aspects of ASTM C1363, there is no clear evidence that this test, which the Rule has required since 1979, is defective or opens the door to false or misleading claims. In addition, the Commission does not generally develop or modify test procedures. Instead, the Rule incorporates consensus industry standards developed by ASTM and similar bodies that have the required expertise to address improvements in test methods.

Furthermore, the Commission does not propose to remove the term “insulation” from the Rule as a descriptor for these products. The record provides no clear evidence that the term confuses consumers or should otherwise be changed. In fact, “reflective insulation” is the term routinely used in ASTM procedures as well as in Department of Energy publications.<sup>70</sup> While the Commission does not propose to change references to “insulation,” it seeks comment on whether to replace the term “aluminum” with “reflective material” or a similar term because these insulation systems may not always involve aluminum.

Finally, the Commission does not propose to require warnings that radiant barriers and radiant control coatings are not “insulation.” It is unclear whether such statements would benefit consumers or even how they would interpret such a disclosure. Nevertheless, as the Commission has stated, R-value claims are not appropriate for radiant barrier reflective insulations, and sellers

---

<sup>70</sup> See, e.g., ASTM C1224-03, “Standard Specification for Reflective Insulation for Building Applications;” and “Insulation Fact Sheet,” Department of Energy, DOE/CE-0180, 2008 at [https://www1.eere.energy.gov/library/pdfs/insulation\\_fact\\_sheet.pdf](https://www1.eere.energy.gov/library/pdfs/insulation_fact_sheet.pdf).

of radiant barriers, reflective coatings, and similar products must have competent and reliable scientific evidence to substantiate any energy savings claims they make.<sup>71</sup>

## **I. Updating Test References**

*Background and Comments:* In the ANPR, the Commission asked whether it should amend the Rule to update the tests currently incorporated by reference. Under section 460.7, the Commission will accept, but not require, the use of a revised version of any of these standards 90 days after ASTM adopts and publishes the revision. The Commission may, however, reopen the rulemaking proceeding during the 90-day period, or at any later time, to consider whether it should require use of the revised standards or reject them under section 460.5.<sup>72</sup> Two commenters (Icynene and ACC) recommended the Commission update the referenced tests. ACC further recommended the Rule allow for “the continual incorporation of new or amended consensus-based material specifications.” It explained that the current Rule requires outdated specifications and may create a disincentive to improve existing standards.

*Discussion:* The Commission proposes to update section 460.5 reflect the most recent versions of the ASTM test procedures. It also proposes to remove section 460.7 to eliminate automatic updates to the ASTM test procedures incorporated by reference in the Rule. Doing so ensures the Rule is consistent with the Office of Federal Register (OFR) regulations. Specifically, OFR requires that incorporation by reference is “limited to the edition of the publication that is approved. Future amendments or revisions of the publication are not included.”<sup>73</sup> The proposed amendment will also ensure that the Rule provides notice and an opportunity to comment on test updates before they are incorporated into the regulation. The

---

<sup>71</sup> 68 FR at 41890.

<sup>72</sup> 61 FR at 13663.

<sup>73</sup> See 1 CFR § 51.1(f).

Commission periodically will review the test procedures incorporated by reference to ensure the Rule contains the most recent versions.

#### **J. Fibrous Insulation**

*Background and Comments:* ACC and Icynene suggested the Rule’s compression warning, currently applicable to duct insulation (§ 460.13(d)), should also apply to all fibrous insulation because compression is not unique to air duct insulation.

*Discussion:* The Commission does not propose to change the fact sheet disclosure related to compression. When the Rule was first promulgated in 1979, the Commission considered compression disclosures for both air duct and other insulations. In issuing the final Rule, it explained that air duct insulation “must be wrapped around the air duct during installation, causing significant compression at the edges of the duct,” while mineral wool batts, when installed properly, are not similarly compressed. In fact, commenters at the time indicated that special disclosures for such products would “be overly simplified” and would apply only to the performance of improperly installed insulation. The Commission has determined not to alter this original determination based on the information in new comments.<sup>74</sup>

#### **K. Limited Format Disclosures**

*Background and Comments:* NAIMA urged the Commission to exempt Twitter and mobile sources from Rule provisions requiring insulation advertisements to contain statements such as “Savings vary. Find out why in the seller’s fact sheet on R-values. Higher R-values

---

<sup>74</sup> 44 FR at 50231. Icynene also questioned the basis for the Rule’s exclusion of pipe insulation. In promulgating the original Rule, the Commission noted that, although it can serve to reduce heat loss, pipe insulation is used primarily to prevent condensation on low-temperature pipelines. See 44 FR at 50238, n. 170 (“Pipe insulation . . . has unique qualities . . . .”); and *Final Staff Report to the Federal Trade Commission and Proposed Trade Regulation Rule (16 CFR Part 460)*, July 1978 (“Staff Report”) at 21, 188.

mean greater insulating power.”<sup>75</sup> NAIMA explained that disclosures of such length are not suited to smaller formats. In addition, it noted that the Rule already exempts radio and television advertisements from these disclosures. Like those formats, NAIMA argued that Twitter and mobile source advertising “demand pithy and concise messages – clever enough to catch the audience’s attention in a very short amount of time.”

*Discussion:* The Commission agrees that the required disclosures may be infeasible or impractical for some methods of advertising. Therefore, the Commission proposes to amend the Rule to exempt space-constrained advertising from the required disclosures in sections 460.18 and 460.19. The Rule already excludes television and radio advertising from the more detailed disclosures requirements because meaningful disclosures are probably not effective in those media.<sup>76</sup> The same rationale would seem to apply to space-constrained advertisements in Twitter and mobile sources.

Accordingly, the Commission proposes to exempt any “space-constrained advertisement” from the disclosures in sections 460.18 and 460.19. The proposed Rule defines “space-constrained” as any communication made through interactive media (such as the Internet, online services, and software, including but not limited to Internet search results and banner ads) that has space, format, size or technological limitations or restrictions that effectively prevent marketers from making the required disclosures. Industry members would have the burden of showing that there is insufficient space for the required disclosure. This amendment would appear to reduce burden on companies without decreasing the Rule’s effectiveness. The Commission seeks comments on this proposal.

---

<sup>75</sup> 16 CFR 460.19(b).

<sup>76</sup> See 70 FR at 31271; 51 FR 39650 (Oct. 30, 1986).

#### **L. Distribution of Fact Sheets**

*Background and Comments:* Commenter Robin Turk argued that the Rule should require sellers to give a copy of their fact sheets to consumers instead of merely “showing” the fact sheets as currently required by sections 460.14 and 460.15. Turk recommended consumers “sign off” on the fact they received the sheet and acknowledge they were made aware of the R-value requirements under the building code. The Commission is not proposing these amendments. It is not clear the Rule’s current approach results in consumers receiving inadequate information. Moreover, the suggested approach would impose burdens on industry, and it is not clear the benefits of the approach would justify such burdens.

#### **M. Efficiency Claims for New Homes**

*Background and Comment:* NAIMA recommended that sellers who advertise homes as “energy efficient” disclose the basis for such claims, including “the products used (appliances, insulation, windows), the R-value of the products used, and the location in the home in which they were used.” NAIMA argued that such disclosures would prevent sellers from misleading buyers with unsubstantiated claims.

*Discussion:* The Commission does not propose to amend the Rule to cover “energy efficient” claims for homes. Such a change would substantially expand the Rule’s scope. Energy efficiency claims for homes involve many factors, including air sealing, windows, appliances, lighting, and HVAC equipment. The number of variables thus requires a case-by-case analysis of a home’s components. Such variables make it difficult to provide a broad disclosure that would be generally meaningful. For example, certain factors, such as significant air leakage, can substantially limit the benefits of high efficiency heating and cooling equipment, appliances, and windows. Furthermore, Section 5 of the FTC Act already covers such home

energy representations, and the Commission can bring enforcement actions when appropriate to address deceptive claims.<sup>77</sup> Finally, commenters provided no evidence that deceptive claims regarding home energy efficiency were prevalent in the housing market to warrant the Rule's expansion.<sup>78</sup>

## **N. Acoustic Performance Claims**

*Background and Comments:* NAIMA also urged the Commission to expand the Rule to cover acoustic performance claims for insulation. According to NAIMA, these claims have increased, and a recent National Advertising Division (“NAD”) case addresses them.<sup>79</sup> Specifically, NAIMA recommended the Rule require “manufacturers to have competent and reliable test data per appropriate ASTM methods” to support such claims.

*Discussion:* The Commission does not propose to expand the Rule to cover acoustic performance claims because it lacks evidence regarding the prevalence of misleading acoustical performance claims. In addition, as with energy efficiency claims, Section 5 of the FTC Act already requires manufacturers to substantiate any claims regarding insulation's acoustic performance, and the FTC may bring enforcement actions against those who violate Section 5.

---

<sup>77</sup> In past cases, the Commission has required that marketers have competent and reliable scientific evidence to support their energy savings claims. *See, e.g., In re Gorell Enterprises Inc.*, FTC File No. 112-3053 (May 16, 2012); *In re Long Fence & Home LLLP*, FTC File No. 112-3005 (Apr. 5, 2012); *In re Serious Energy Inc.*, FTC File No. 112-3001 (May 16, 2012); *In re THV Holdings LLC*, FTC File No. 112-3057 (May 16, 2012); and *In re Winchester Industries*, FTC File No. 102-3171 (May 16, 2012). In addition, the Commission already administers labeling programs for the energy use of many products important to home efficiency. 16 CFR Part 305.

<sup>78</sup> The Commission may not issue a notice of proposed rulemaking unless it has “reason to believe that the unfair or deceptive acts or practices which are the subject of the proposed rulemaking are prevalent.” 15 U.S.C. 57a(b)(3). The Commission may find prevalence where available information “indicates a widespread pattern of unfair or deceptive acts or practices.” *Id.* at 57a(b)(3)(B).

<sup>79</sup> *See* Applegate Insulation (Cellulose Insulation Products), Case #5961, NAD/CARY Case reports (June 2016).

## **O. R-value Per Inch Claims**

*Background:* Section 460.20 of the Rule prohibits R-value per inch claims unless test results prove that the product's R-value per inch does not drop at greater thicknesses. The Commission previously explained that the basis for this provision is that R-value per inch claims lead "consumers to believe that insulation R-values are linear," when, in fact, they often are not. For most insulation, R-value does not increase proportionally with thickness. Accordingly, unqualified R-value per inch claims are often deceptive.<sup>80</sup>

*Comments:* NAIMA recommended the Commission amend the Rule to clarify the rationale for the R-value per inch prohibitions in section 460.20. Although NAIMA supported the existing restrictions, it suggested that many consumers do not understand that the relation between R-value and inches is not linear. Specifically, NAIMA argued the Commission's focus on the term "linear" may be confusing. Accordingly, it recommended new Rule language stating that, while adding thickness may increase the total R-value, each added inch will not add the same "amount" of R-value. It also cited a recent NAD case, rejecting a challenge to an R-value per inch claim because of the lack of consumer perception evidence indicating consumers believe the relationship between R-value and thickness is linear. NAIMA noted that the FTC has long assumed this to be the case because the Rule's "per inch" section rests on that understanding.<sup>81</sup>

*Recommendation:* The Commission declines to propose amendments to section 460.20. When it adopted this provision, the Commission recognized that many consumers believed the

---

<sup>80</sup> 44 FR at 50234.

<sup>81</sup> Icynene asked whether section 460.6 translates into a minimum or an average thickness required for spray in or blown in products. On its face, the provision does not exclude such products. In addition, in initially issuing the provision, the Commission discussed its application to loose fill products. *See* 44 FR at 50226.

relationship between R-value and thickness was linear, particularly when interpreting certain claims (*i.e.*, per inch claims). Specifically, in first issuing this provision, the Commission explained that misleading “references to the R-value for a one-inch thickness of the material will encourage consumers to think that it is appropriate to multiply this figure by the desired number of inches, as though the R-value per inch was constant.”<sup>82</sup> However, there is insufficient evidence to indicate that the Rule’s current language is ambiguous or confusing. Section 460.20 simply explains that industry members should not advertise R-value for one inch or the “R-value per inch” unless “actual test results prove that the R-values per inch of your product does not drop as it gets thicker.” The Commission declines to revise this language as suggested because the explanatory language proposed by NAIMA may not apply to all insulation products and thus may create consumer confusion.<sup>83</sup> Furthermore, the Rule itself does not include the term “linear,” which NAIMA identifies as particularly confusing. The Commission will consider whether to issue additional consumer and business education materials relating to R-value per inch claims.

#### **P. Preemption and Other Laws**

*Background:* Section 460.23(b) of the Rule provides that “[s]tate and local laws and regulations that are inconsistent with, or frustrate the purposes of, the provisions of this regulation are preempted. However, a state or local government may petition the Commission,

---

<sup>82</sup> 44 FR at 50234.

<sup>83</sup> For example, some products may, in fact, exhibit a linear relationship between R-value and thickness. Indeed, in the case noted by NAIMA, NAD concluded the company in question “provided a reasonable basis for its ‘R-value per inch claims,’ noting that the evidence in the record supports a finding that [the company’s] cellulose insulation meets the exception to the FTC’s R-value rule and therefore . . . is not prohibited by that rule from making ‘R-value per inch’ claims.” See <http://www.ascreviews.org/nad-recommends-applegate-discontinue-certain-claims-for-cellulose-insulation-finds-company-can-support-certain-claims/>.

for good cause, to permit the enforcement of any part of a State or local law or regulation that would be preempted by this section.”

*Comments:* NAIMA urged the Commission to retain the Rule’s preemption provision and, to the extent possible, clarify it. Specifically, it noted that the Rule (section 460.23(b)) allows a state or local government to petition the Commission, for good cause, “to permit the enforcement of any part of a State or local law or regulation that would be preempted by this section.” NAIMA urged the FTC to revise the Rule to make clear that the Commission will provide the public and the affected industry with notice and opportunity to comment before the Commission makes any decision to waive preemption.<sup>84</sup>

*Discussion:* The Commission does not propose to amend the existing preemption provision. The Commission has already indicated that it will seek public comment when considering such preemption-related requests from states, just as NAIMA has requested. Specifically, in promulgating the Rule in 1979 (44 FR at 50235), the Commission stated that any action to grant such a petition will be conducted in accordance with 5 U.S.C. 553, providing notice and opportunity to comment for affected parties.

## **H. Effective Date of Amendments**

The Commission proposes to make these amendments effective 180 days after publication. The Commission seeks comment on whether such an effective date provides those subject to the amendments sufficient time to come into compliance.

---

<sup>84</sup> XPSA and EPS Alliance also expressed concern about an ongoing Department of Energy proceeding involving efficiency standards for walk-in coolers and freezers. XPSA explained that the proposed DOE regulation is potentially inconsistent with the International Energy Conservation Code for Commercial Buildings (Section C303.1.4), which follows the FTC R-value Rule on the issues of aging and mean temperatures. XPSA and other commenters have brought these concerns to DOE’s attention in that proceeding.

#### **IV. Request for Comment**

You can file a comment online or on paper. For the Commission to consider your comment, we must receive it on or before March 23, 2018. Write “R-value Rule (No. R811001)” on your comment. Your comment – including your name and your state – will be placed on the public record of this proceeding, including, to the extent practicable, on the public FTC Website, at <https://www.ftc.gov/policy/public-comments>.

Postal mail addressed to the Commission is subject to delay due to heightened security screening. As a result, we encourage you to submit your comments online. To make sure that the Commission considers your online comment, you must file it at <https://ftcpublic.commentworks.com/ftc/R-value>, by following the instruction on the web-based form. When this Notice appears at <http://www.regulations.gov>, you also may file a comment through that website.

If you file your comment on paper, “R-value Rule (No. R811001)” on your comment and on the envelope, and mail your comment to the following address: Federal Trade Commission, Office of the Secretary, 600 Pennsylvania Avenue, NW, Suite CC-5610 (Annex E), Washington, DC 20580, or deliver your comment to the following address: Federal Trade Commission, Office of the Secretary, Constitution Center, 400 7th Street, SW, 5th Floor, Suite 5610 (Annex E), Washington, DC 20024. If possible, please submit your paper comment to the Commission by courier or overnight service.

Because your comment will be placed on the publicly accessible FTC Website at <https://www.ftc.gov>, you are solely responsible for making sure that your comment does not include any sensitive or confidential information. In particular, your comment should not include any sensitive personal information, such as your or anyone else’s Social Security

number; date of birth; driver's license number or other state identification number, or foreign country equivalent; passport number; financial account number; or credit or debit card number. You are also solely responsible for making sure that your comment does not include any sensitive health information, such as medical records or other individually identifiable health information. In addition, your comment should not include any "[t]rade secret or any commercial or financial information which is . . . privileged or confidential" – as provided by section 6(f) of the FTC Act, 15 U.S.C. 46(f), and FTC Rule 4.10(a)(2), 16 CFR 4.10(a)(2) – including in particular competitively sensitive information such as costs, sales statistics, inventories, formulas, patterns, devices, manufacturing processes, or customer names.

Comments containing material for which confidential treatment is requested must be filed in paper form, must be clearly labeled "Confidential," and must comply with FTC Rule 4.9(c). In particular, the written request for confidential treatment that accompanies the comment must include the factual and legal basis for the request, and must identify the specific portions of the comment to be withheld from the public record. *See* FTC Rule 4.9(c). Your comment will be kept confidential only if the FTC General Counsel grants your request in accordance with the law and the public interest. Once your comment has been posted on the public FTC Website – as legally required by FTC Rule 4.9(b) – we cannot redact or remove your comment from the FTC Website, unless you submit a confidentiality request that meets the requirements for such treatment under FTC Rule 4.9(c), and the General Counsel grants that request.

Visit the FTC Website to read this NPRM and the news release describing it. The FTC Act and other laws that the Commission administers permit the collection of public comments to consider and use in this proceeding, as appropriate. The Commission will consider all timely and responsive public comments that it receives on or before March 23, 2018. You can find

more information, including routine uses permitted by the Privacy Act, in the Commission's privacy policy at <https://www.ftc.gov/site-information/privacy-policy>.

## **V. Rulemaking Procedures**

The Commission finds that using expedited procedures in this rulemaking will serve the public interest. Expedited procedures will support the Commission's goals of clarifying and updating existing regulations without undue expenditure of resources, while ensuring that the public has an opportunity to submit data, views, and arguments on whether the Commission should amend the Rule. Because written comments should adequately present the views of all interested parties, the Commission is not scheduling a public hearing or workshop. However, if any person would like to present views orally, he or she should follow the procedures set forth in the DATES, ADDRESSES, and SUPPLEMENTARY INFORMATION sections of this document.

Pursuant to 16 CFR 1.20, the Commission will use the procedures set forth in this document, including: (1) Publishing this Notice of Proposed Rulemaking; (2) soliciting written comments on the Commission's proposals to amend the Rule; (3) holding an informal hearing such as a workshop, if requested by interested parties; (4) obtaining a final recommendation from staff; and (5) announcing final Commission action in a document published in the Federal Register. Any motions or petitions in connection with this proceeding must be filed with the Secretary of the Commission.

## **VI. Regulatory Flexibility Act**

The Regulatory Flexibility Act (RFA), 5 U.S.C. 601 through 612, requires that the Commission provide an Initial Regulatory Flexibility Analysis (IRFA) with a proposed rule and a Final Regulatory Flexibility Analysis (FRFA), if any, with the final rule, unless the

Commission certifies that the rule will not have a significant economic impact on a substantial number of small entities. *See* 5 U.S.C. 603 through 605.

The Commission does not anticipate that the proposed amendments will have a significant economic impact on a substantial number of small entities. The Commission recognizes that some of the affected manufacturers may qualify as small businesses under the relevant thresholds. Because the R-value Rule covers home insulation manufacturers and retailers, professional installers, new home sellers, and testing laboratories, the Commission believes that any amendments to the Rule may affect a substantial number of small businesses. However, the Commission does not expect that the economic impact of the proposed amendments will be significant because these amendments involve updates, clarifications and minor changes to the Rule.

Accordingly, this document serves as notice to the Small Business Administration of the FTC's certification of no effect. To ensure the accuracy of this certification, however, the Commission requests comment on whether the proposed rule will have a significant impact on a substantial number of small entities, including specific information on the number of entities that would be covered by the proposed rule, the number of these companies that are small entities, and the average annual burden for each entity. Although the Commission certifies under the RFA that the rule proposed in this notice would not, if promulgated, have a significant impact on a substantial number of small entities, the Commission has determined, nonetheless, that it is appropriate to publish an IRFA in order to inquire into the impact of the proposed rule on small entities. Therefore, the Commission has prepared the following analysis:

**A. Description of the Reasons That Action by the Agency Is Being Taken**

The Commission is proposing improvements to the Rule to help consumers in their purchasing insulation by clarifying several provisions, updating requirements, ensuring proper test procedures are followed to determine the R-values of covered products, and exempting certain types of advertising from affirmative disclosures.

**B. Statement of the Objectives of, and Legal Basis for, the Proposed Rule**

The objective of the amendments is to improve the existing requirements for insulation labeling and advertising. The legal basis for the Rule is 15 U.S.C. 41 *et seq.*

**C. Small Entities to Which the Proposed Rule Will Apply**

Because the R-value Rule covers home insulation manufacturers and retailers, professional installers, new home sellers, and testing laboratories, the Commission believes that any amendments to the Rule may affect a substantial number of small businesses. Nevertheless, the proposed amendments would not appear to have a significant economic impact upon such entities. The FTC seeks comment and information regarding the estimated number or nature of small business entities for which the proposed rule would have a significant economic impact.

**D. Projected Reporting, Recordkeeping and Other Compliance Requirements**

The changes under consideration would not increase reporting or recordkeeping requirements.

**E. Duplicative, Overlapping, or Conflicting Federal Rules**

The Commission has not identified any other federal statutes, rules, or policies that would duplicate, overlap, or conflict with the proposed rule. The Commission invites comment and information on this issue.

## **F. Significant Alternatives to the Proposed Rule**

The Commission seeks comment and information on the need, if any, for alternative compliance methods that, consistent with the statutory requirements, would reduce the economic impact of the rule on small entities. For example, the Commission is currently unaware of the need to adopt any special provisions for small entities. However, if such issues are identified, the Commission could consider alternative approaches such as extending the effective date of these amendments for catalog sellers to allow them additional time to comply beyond the labeling deadline set for manufacturers. Nonetheless, if the comments filed in response to this notice identify small entities that are affected by the proposed rule, as well as alternative methods of compliance that would reduce the economic impact of the rule on such entities, the Commission will consider the feasibility of such alternatives and determine whether they should be incorporated into the final rule.

## **VII. Paperwork Reduction Act**

The current Rule contains recordkeeping, disclosure, testing, and reporting requirements that constitute information collection requirements as defined by 5 CFR 1320.3(c), the definitional provision within the Office of Management and Budget (OMB) regulations that implement the Paperwork Reduction Act (PRA). OMB has approved the Rule's existing information collection requirements through January 31, 2018 (OMB Control No. 3084-0109). The proposed amendments make changes in the Rule's labeling requirements that will increase the PRA burden as detailed below. Accordingly, FTC staff will submit this notice of proposed rulemaking and associated Supporting Statement to OMB for review under the PRA.<sup>85</sup>

---

<sup>85</sup> The PRA analysis for this rulemaking focuses strictly on the information collection requirements created by and/or otherwise affected by the amendments. Unaffected information

The Commission is proposing to adopt a small number of rule amendments designed to clarify the Rule, reduce its burdens, and require specific testing procedures for non-insulation products. In the Commission’s view, the proposed amendments will not increase the paperwork burden associated with the Rule’s requirements. Under the current requirements, any marketer making an R-value claim must have competent and reliable evidence to back that claim. Accordingly, it is likely that such marketers already conduct testing for claims under the normal course of business. Thus, the proposed requirement should not increase those burdens. Similarly, with regard to online insulation sales and fact sheet amendments, the Rule already requires retailers to provide fact sheets to their consumers. Accordingly, the amendments regarding the small changes to fact sheets and online displays of fact sheets and labels should not create any significant increase in the Rule’s current burden. In addition, any potential increase from those amendments is likely to be offset by the amendment exempting space-constrained advertising from the affirmative disclosures in section 460.18 and 460.19.<sup>86</sup>

Consequently, there are no additional “collection of information” requirements included in the proposed amendments to submit to OMB for clearance under the Paperwork Reduction Act. Although the Commission has tentatively concluded the proposed amendments would not increase the paperwork burden associated with compliance with the Rule, to ensure that no significant paperwork burden is being overlooked, the Commission requests comments on this issue.

---

collection provisions have previously been accounted for in past FTC analyses under the Rule and are covered by the current PRA clearance from OMB.

<sup>86</sup> The proposed fact sheet amendments in 460.13 do not constitute a “collection of information” under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501-3520) because they are a “public disclosure of information originally supplied by the government to the recipient for the purpose of disclosure to the public” as indicated in Office of Management and Budget regulations. 5 CFR 1320.3(c)(2).

## **VIII. Communications by Outside Parties to the Commissioners or Their Advisors**

Pursuant to Commission Rule 1.18(c)(1), the Commission has determined that communications with respect to the merits of this proceeding from any outside party to any Commissioner or Commissioner advisor shall be subject to the following treatment. Written communications and summaries or transcripts of oral communications shall be placed on the rulemaking record if the communication is received before the end of the comment period on the staff report. They shall be placed on the public record if the communication is received later. Unless the outside party making an oral communication is a member of Congress, such communications are permitted only if advance notice is published in the Weekly Calendar and Notice of “Sunshine” Meetings.<sup>87</sup>

## **IX. Incorporation by Reference**

Consistent with 5 U.S.C. 552(a) and 1 CFR Part 51, the Commission proposes to incorporate the specifications of the following documents published by the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. and ASTM International:<sup>88</sup>

- 2017 ASHRAE Handbook—Fundamentals, I-P Edition (published 2017) (ASHRAE Handbook covers basic principles and data used in the heating, ventilation, air conditioning and refrigeration industry);
- ASTM C 177-13, “Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus (published October 2013)” (“This test covers the measurement of heat flux and associated test conditions for flat specimens. The guarded-hot-plate apparatus is

---

<sup>87</sup> See 15 U.S.C. 57a(i)(2)(A); 16 CFR 1.18(c).

<sup>88</sup> Quoted descriptions of ASTM standards from *www.astm.org*.

- generally used to measure steady-state heat flux through materials having a “low” thermal conductivity and commonly denoted as “thermal insulators.”);
- ASTM C 518-15, “Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus (published December 2015)” (“This test method covers the measurement of steady state thermal transmission through flat slab specimens using a heat flow meter apparatus”);
  - ASTM C 739-17, “Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation” (August 2017) (“This specification covers the composition and physical requirements of chemically treated, recycled cellulosic fiber loose-fill type thermal insulation for use in attics or enclosed spaces in housing, and other framed buildings within the ambient temperature range from –45 to 90°C by pneumatic or pouring application.”);
  - ASTM C 1045-07 (reapproved 2013), “Standard Practice for Calculating Thermal Transmission Properties from Steady-State Conditions (published January 2014)” (“This practice is intended to provide the user with a uniform procedure for calculating the thermal transmission properties of a material or system from standard test methods used to determine heat flux and surface temperatures.”);
  - ASTM C 1114-06 (Reapproved 2013), “Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Thin-Heater Apparatus (published January 2014)” (“This test method covers the determination of the steady-state thermal transmission properties of flat-slab specimens of thermal insulation using a thin heater of uniform power density having low lateral heat flow.”);

- ASTM C 1149-11, “Standard Specification for Self-Supported Spray Applied Cellulosic Thermal Insulation (published August 2011)” (“The specification covers the physical properties of self-supported spray applied cellulosic fibers intended for use as thermal insulation or an acoustical absorbent material, or both.”);
- ASTM C 1224-15, “Standard Specification for Reflective Insulation for Building Applications (published November 2015)” (“This specification covers the general requirements and physical properties of reflective insulations for use in building applications.”);
- ASTM C 1363-11, “Standard Test Method for the Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus (published June 2011)” (“This test method establishes the principles for the design of a hot box apparatus and the minimum requirements for the determination of the steady state thermal performance of building assemblies when exposed to controlled laboratory conditions. This method is also used to measure the thermal performance of a building material at standardized test conditions such as those required in ASTM material Specifications C739, C764, C1224 and Practice C1373.”);
- ASTM C 1371-15, “Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers (published June 2015)” (“This test method covers a technique for determination of the emittance of opaque and highly thermally conductive materials using a portable differential thermopile emissometer. The purpose of the test method is to provide a comparative means of quantifying the emittance of materials near room temperature.”);

- ASTM C 1374-14, “Standard Test Method for Determination of Installed Thickness of Pneumatically Applied Loose-Fill Building Insulation” (published May 2014) (“This test method covers determination of the installed thickness of pneumatically applied loose-fill building insulations prior to settling by simulating an open attic with horizontal blown applications.”);
- ASTM E 408-13, “Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques (published June 2013)” (“These test methods cover determination of the total normal emittance of surfaces by means of portable, as well as desktop, inspection-meter instruments.”).

The ASHRAE Handbook and the ASTM standards are reasonably available to interested parties. Members of the public can obtain copies of ASTM C 177-13, ASTM C 518-15, ASTM C 739-11, ASTM C 1045-07, ASTM C 1114-06, ASTM C 1149-11, ASTM C 1224-15, ASTM C 1363-11, ASTM C 1371-15, ASTM C 1374-14, and ASTM E 408-13 from ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428; telephone: 1-877-909-2786; Internet address: <http://www.astm.org>. Members of the public can obtain copies of the 2017 ASHRAE Handbook—Fundamentals, I-P Edition (2017) from ASHRAE Headquarters 1791 Tullie Circle, N.E. Atlanta, GA 30329; telephone (404) 636-8400; Internet address: <https://www.ashrae.org>. These standards are also available for inspection at the FTC Library, (202) 326-2395 Federal Trade Commission, Room H-630, 600 Pennsylvania Avenue, NW, Washington, DC 20580.

## **IX. Proposed Rule Language**

### **List of Subjects in 16 CFR Part 460**

Advertising, Incorporation by reference, Insulation, Labeling, Reporting and recordkeeping requirements, Trade practices.

For the reasons set out in this document, the Commission proposes adopting the following amendments to 16 CFR part 460.

### **PART 460--LABELING AND ADVERTISING OF HOME INSULATION**

1. The authority citation for Part 460 continues to read as follows:

Authority: 38 Stat. 717, as amended (15 U.S.C. 41 *et seq.*).

2. Revise § 460.1 to read as follows:

#### **§ 460.1 What this regulation does.**

This regulation deals with R-value claims, as well as home insulation labels, fact sheets, ads, and other promotional materials in or affecting commerce, as “commerce” is defined in the Federal Trade Commission Act. If you are covered by this regulation, breaking any of its rules is an unfair and deceptive act or practice or an unfair method of competition under section 5 of that Act. You can be fined heavily (up to the civil monetary penalty amount specified in §1.98 of this chapter) each time you break a rule.

3. Revise § 460.2 to read as follows:

#### **§ 460.2 What is home insulation.**

Insulation is any material mainly used to slow heat flow. It may be mineral or organic, fibrous, cellular, or reflective (aluminum foil). It may be in rigid, semirigid, flexible, or loose-fill form. Home insulation is for use in old or new homes, condominiums, cooperatives, apartments, modular homes, or mobile homes. It does not include pipe insulation. It does not include any

kind of duct insulation except for duct wrap. It also includes insulation developed and marketed for commercial or industrial buildings that is also marketed for and used in residential buildings.

4. Revise § 460.3 to read as follows:

**§ 460.3 Who is covered.**

You are covered by this regulation if you are a member of the home insulation industry. This includes individuals, firms, partnerships, and corporations. It includes manufacturers, distributors, franchisors, installers, retailers, utility companies, and trade associations. Advertisers and advertising agencies are also covered. So are labs doing tests for industry members. If you sell new homes to consumers, you are covered. If you make R-value claims for non-insulation products described in § 460.22 of this part, you are covered by the requirements of that section.

5. Revise § 460.4 to read as follows:

**§ 460.4 When the rules apply.**

You must follow these rules each time you import, manufacture, distribute, sell, install, promote, or label home insulation. You must follow them each time you prepare, approve, place, or pay for home insulation labels, fact sheets, ads, or other promotional materials for consumer use. You must also follow them each time you supply anyone covered by this regulation with written information that is to be used in labels, fact sheets, ads, or other promotional materials for consumer use. Testing labs must follow the rules unless the industry members tells them, in writing, that labels, fact sheets, ads, or other promotional materials for home insulation will not be based on the test results. You must follow the requirements of § 460.22 of this part each time you make an R-value claim for non-insulation products marketed in whole or in part to reduce residential energy use by slowing heat flow.

6. Revise § 460.5 to read as follows:

**§ 460.5 R-value tests.**

R-value measures resistance to heat flow. R-values given in labels, fact sheets, ads, or other promotional materials must be based on tests done under the methods listed below. They were designed by the American Society of Testing and Materials (ASTM). The test methods are:

- (a) All types of insulation except aluminum foil must be tested with ASTM C177-13, “Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus;” ASTM C518-15, “Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus;” ASTM C1363-11, “Standard Test Method for the Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus” or ASTM C1114-06, “Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Thin-Heater Apparatus.” The tests must be done at a mean temperature of 75 degrees Fahrenheit and with a temperature differential of 50 degrees Fahrenheit plus or minus 10 degrees Fahrenheit. The tests must be done on the insulation material alone (excluding any airspace). R-values (“thermal resistance”) based upon heat flux measurements according to ASTM C177-13 or ASTM C518-15 must be reported only in accordance with the requirements and restrictions of ASTM C1045-07, “Standard Practice for Calculating Thermal Transmission Properties from Steady-State Conditions.”
- (1) For polyurethane, polyisocyanurate, and extruded polystyrene, the tests must be done on samples that fully reflect the effect of aging on the product’s R-value.
- (2) For loose-fill cellulose, the tests must be done at the settled density determined under paragraph 8 of ASTM C739-17, “Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation.”

(3) For loose-fill mineral wool, self-supported, spray-applied cellulose, and stabilized cellulose, the tests must be done on samples that fully reflect the effect of settling on the product's R-value.

(4) For self-supported spray-applied cellulose, the tests must be done at the density determined pursuant to ASTM C1149-11, "Standard Specification for Self-Supported Spray Applied Cellulosic Thermal Insulation."

(5) For loose-fill insulations, the initial installed thickness for the product must be determined pursuant to ASTM C1374-04, "Standard Test Method for Determination of Installed Thickness of Pneumatically Applied Loose-Fill Building Insulation," for R-values of 13, 19, 22, 30, 38, 49 and any other R-values provided on the product's label pursuant to §460.12.

(b) Single sheet systems of aluminum foil must be tested with ASTM E408-13, "Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques," or ASTM C1371-15, "Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emisometers." This tests the emissivity of the foil—its power to radiate heat. To get the R-value for a specific emissivity level, air space, and direction of heat flow, use the tables in ASHRAE Handbook—Fundamentals, I-P Edition, if the product is intended for applications that meet the conditions specified in the tables. You must use the R-value shown for 50 degrees Fahrenheit, with a temperature differential of 30 degrees Fahrenheit.

(c) Aluminum foil systems with more than one sheet, and single sheet systems of aluminum foil that are intended for applications that do not meet the conditions specified in the tables in the ASHRAE Fundamentals Handbook, must be tested with ASTM C1363-11, "Standard Test Method for the Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus," in a test panel constructed according to ASTM C1224-15, "Standard Specification for Reflective Insulation for Building Applications," and under the test conditions specified in

ASTM C1224-15. To get the R-value from the results of those tests, use the formula specified in ASTM C1224-15.

(d) For insulation materials with foil facings, you must test the R-value of the material alone (excluding any air spaces) under the methods listed in paragraph (a) of this section. You can also determine the R-value of the material in conjunction with an air space. You can use one of two methods to do this:

(1) You can test the system, with its air space, under ASTM C1363-11, “Standard Test Method for the Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus,” which is incorporated by reference in paragraph (a) of this section. If you do this, you must follow the rules in paragraph (a) of this section on temperature, aging and settled density.

(2) You can add up the tested R-value of the material and the R-value of the air space. To get the R-value for the air space, you must follow the rules in paragraph (b) of this section.

(e) The standards required in this section are incorporated by reference into this section with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. All approved material is available for inspection at the FTC Library, (202) 326-2395, Federal Trade Commission, Room H-630, 600 Pennsylvania Avenue, NW., Washington, DC 20580. It is also available for inspection at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030 or go to [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html):

(1) ASHRAE Headquarters, 1791 Tullie Circle, N.E. Atlanta, GA 30329; telephone (404) 636-8400; <https://www.ashrae.org>.

(i) 2017 ASHRAE Handbook—Fundamentals, I-P Edition (published 2017)

(ii) [Reserved]

(2) ASTM Int'l, 100 Barr Harbor Drive, P.O. Box C700, West Conshocken, PA 19428-2959, 877-909-2786, [www.astm.org/](http://www.astm.org/) (i) ASTM C 177-13, "Standard Test Method for Steady-State Heat Flux Measurements and Thermal Transmission Properties by Means of the Guarded-Hot-Plate Apparatus (published October 2013).".

(ii) ASTM C 518-15, "Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus" (published December 2015)..

(iii) ASTM C 739-11, "Standard Specification for Cellulosic Fiber Loose-Fill Thermal Insulation." (May 2011).

(iv) ASTM C 1045-07 (reapproved 2013), "Standard Practice for Calculating Thermal Transmission Properties from Steady-State Conditions" (published January 2014).

(v) ASTM C 1114-06 (Reapproved 2013), "Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Thin-Heater Apparatus" (published January 2014).

(vi) ASTM C 1149-11, "Standard Specification for Self-Supported Spray Applied Cellulosic Thermal Insulation" (published August 2011).

(vii) ASTM C 1224-15, "Standard Specification for Reflective Insulation for Building Applications" (published November 2015).

(viii) ASTM C 1363-11, "Standard Test Method for the Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus" (published June 2011).

(ix) ASTM C 1371-15, "Standard Test Method for Determination of Emittance of Materials Near Room Temperature Using Portable Emissometers" (published June 2015).

(x) ASTM C 1374-14, "Standard Test Method for Determination of Installed Thickness of Pneumatically Applied Loose-Fill Building Insulation" (published May 2014).

(xi) ASTM E 408-13, “Standard Test Methods for Total Normal Emittance of Surfaces Using Inspection-Meter Techniques” (published June 2013).

(2) [Reserved]

**§ 460.7 [Removed and Reserved]**

7. Remove and reserve § 460.7.
8. Revise paragraph (e) of § 460.13 to read as follows:

**§ 460.13 Fact Sheets**

\* \* \* \* \*

(e) After the chart and any statement dealing with the specific type of insulation, ALL fact sheets must carry this statement, boxed, in 12-point type:

**READ THIS BEFORE YOU BUY**

**What You Should Know About R-values**

The chart shows the R-value of this insulation. R means resistance to heat flow. The higher the R-value, the greater the insulating power. Compare insulation R-values before you buy.

There are other factors to consider. The amount of insulation you need depends mainly on the climate you live in. Also, your fuel savings from insulation will depend upon the climate, the type and size of your house, the amount of insulation already in your house, your fuel use patterns and family size, proper installation of your insulation, and how tightly your house is sealed against air leaks. If you buy too much insulation, it will cost you more than what you’ll save on fuel.

To get the marked R-value, it is essential that this insulation be installed properly.

9. Revise § 460.14 to read as follows:

**§ 460.14 How retailers must handle labels and fact sheets.**

If you sell insulation to do-it-yourself customers, you must have fact sheets for the insulation products you sell. You must make the fact sheets available to your customers, whether you offer insulation products for sale offline or online. You can decide how to do this, as long as your insulation customers are likely to notice them. For example, you can put them in a display, and let customers take copies of them. You can keep them in a binder at a counter or service desk, and have a sign telling customers where the fact sheets are. You need not make the fact sheets available to customers if you display insulation packages on the sales floor where your insulation customers are likely to notice them and each individual insulation package offered for sale contains all package label and fact sheet disclosures required by §§ 460.12 and 460.13. If you are offering products for sale online, the product labels and fact sheets required by this part, or a direct link to this information, must appear clearly and conspicuously and in close proximity to the covered product's price on each Web page that contains a detailed description of the covered product and its price.

10. Revise paragraph (e) of § 460.18 to read as follows:

**§460.18 Insulation ads.**

\* \* \* \* \*

(e) The affirmative disclosure requirements in § 460.18 do not apply to television or radio advertisements or to space-constrained advertisements. For the purposes of this part, “space-constrained advertisement” means any communication made through interactive media (such as the Internet, online services, and software, including but not limited to Internet search results and banner ads) that has space, format, size or technological limitations or restrictions that prevent industry members from making disclosures required by this part clearly and conspicuously.

Industry members maintain the burden of showing that there is insufficient space to provide the disclosures that this part otherwise requires be made clearly and conspicuously.

11. Revise paragraph (g) of § 460.19 to read as follows:

**§460.19 Savings claims.**

\* \* \* \* \*

(g) The affirmative disclosure requirements in § 460.19 do not apply to television or radio advertisements or to space-constrained advertisements. “Space-constrained advertisement” is defined in §460.18(e).

12. Redesignate §§ 460.22 through 460.24 as §§460.23 through 460.25 and add a new § 460.22 to read as follows:

**§ 460.22 R-value Claims for Non-Insulation Products**

If you make an R-value claim for a product, other than a fenestration-related product, that is not home insulation and is marketed in whole or in part to reduce residential energy use by slowing heat flow, you must test the product pursuant to § 460.5 of this part using a test or tests in that section appropriate to the product. Any advertised R-value claims must fairly reflect the results of those tests. For the purposes of this section, fenestration-related products include windows, doors, and skylights as well as attachments for those products.

14. In Appendix to Part 460 –Exemptions, add paragraph (d) to read as follows:

**In Appendix to Part 460 –Exemptions**

\* \* \* \* \*

(d) The requirements in §§ 460.6 through 460.21 of this part do not apply to R-value claims covered by § 460.22.

By direction of the Commission.

Donald S. Clark  
Secretary.

[FR Doc. 2017-26569 Filed: 1/19/2018 8:45 am; Publication Date: 1/22/2018]