

A. General Regulatory Review Questions

(1) **Need:** Is there a continuing need for the Rule? Why or why not?

Comment:

The R-value rule is of limited use. It basically compares product performance:

- At room temperature
- In the absence on air leakage and convective air movement.

As such, it does not measure some of the key areas of performance where product types differ. It leads to a belief that adding more R-value alone will reduce energy consumption. There may be a need to compare on bundle of batts to the next but the R-value metric is also being used compare different product types with very different energy efficiency characteristics (and vulnerabilities) when installed in building assemblies. As such it is not protecting consumers who lack sophistication in how they view energy efficiency upgrades.

(2) **Benefits and Costs to Consumers:** What benefits has the Rule provided to consumers, and does the Rule impose any significant costs on consumers?

Comment:

The rule is typically used by consumers to purchase an area (measured in s.f.) of insulation to a given level of performance (measured in R-value). If R-value is lacking in its ability to measure real world performance (which it is because it does not account for air leakage or convection) then consumers are being misled. It is not unlike buying a vehicle based on highway m.p.g. when in the real world the consumer does a lot of city driving. Opportunities to insulate typically come up rarely in the life of a building (i.e. during initial construction and major renovations and repairs.) The biggest single cost is the lost opportunity to air seal along with insulating, thereby imposing an annual energy penalty on thousands of buildings going forward.

(3) **Benefits and Costs to Industry Members:** What benefits, if any, has the Rule provided to businesses, and does the Rule impose any significant costs, including costs of compliance, on businesses, including small businesses?

Comment:

The current rule encourages competition based on R-value alone. More R-value is better. The bottom line is there is very little discussion around how to install insulation (encapsulate), the importance of air leakage control, etc. so if a contractor is going to cut corners, these are the items that do not get addressed well.

(4) **Recommended Changes:** What modifications, if any, should the Commission make to the Rule to increase its benefits or reduce its costs? How would these modifications affect the costs and benefits of the Rule for consumers? How would these

modifications affect the costs and benefits of the Rule for businesses, particularly small businesses?

Comment:

Include an additional clarification that R-value provides an appropriate comparison of products within a specific class of insulation. However, the value of R-value comparisons between different types of products is diminished due to other product attributes like air-permeability that contribute to the energy savings potential of various products. It may even be advisable to create “Classes of materials”, appropriately labeled so the consumer can understand how to compare and contrast products. As an example:

Class A: Air impermeable: These products high and low pressure spray foam products that: form an air barrier on surfaces to which they are applied and can be used to bridge gaps in other air barrier materials. Limited amounts of other materials may be required to seal joints not addressed by the spray foam to achieve a continuous air barrier.

Class B: Air impermeable: These are Boardstock products that are air impermeable and can integrate with an air barrier system if applied with adhesive or sealed at board joints to achieve continuity with other elements.

Class C: Air permeable: These are products that are reliant on other materials / assembly elements for air sealing and to encapsulate the insulating material so as to achieve the stated thermal performance.

(5) ***Impact on Information:*** What impact has the Rule had on the flow of truthful information to consumers and on the flow of deceptive information to consumers?

Comment:

Because there is little differentiation between product types, consumers and even contractors have had relatively poor understanding of the attributes of various types and various products get used inappropriately. For example, it is not unusual to find fibrous materials stuffed in cracks and gaps to air seal and eliminate drafts. This is not an attribute of such materials. Fibrous materials routinely get installed in assemblies that are not representative of the testing that was done on them. Attic installation of fibrous in cold climates materials typically allows uncontrolled convection of warm air up out of the insulation to significantly degrade performance. This occurs even if there is a continuous air seal at the ceiling level and can lead to thermal performance degradation of 50% or more.

Recent testing undertaken at Building Science Labs using the procedure developed in association with USDOE studied the impact of not encapsulating batts in walls (e.g. as found in gable ends of attics, floor headers/rims, unfinished areas above drop ceilings, behind bathtubs, duct chases etc.) Even with a continuous exterior air barrier and a high density fibrous batt installed with a high degree of precision not normally found in the field, when there was no encapsulation on the interior face, performance degraded by 40% compared to the stated R-value on the product packaging. This is important because

any effects related to: poor installation of the batt, incomplete air barrier sealing, and use of lower density batts would only add to the performance degradation of 40%.

- (6) **Compliance:** Provide any evidence concerning the degree of industry compliance with the Rule. Does this evidence indicate that the Rule should be modified? If so, why, and how? If not, why not?

Comment:

The insulation industry generally complies with the rule but struggles to give the consumer meaningful information beyond R-value of materials. The limited definition of the rule causes government agencies such as EPA's Energy Star Program to adopt rigid interpretations of the rule around expected energy savings leaning heavily on R-value alone as the basis for claims. As a result, numerous opportunities get lost to promote proper installation of materials to get maximum energy savings.

- (7) **Unnecessary Provisions:** Provide any evidence concerning whether any of the Rule's provisions are no longer necessary. Explain why these provisions are unnecessary.

Comment:

We question whether the overly-restrictive language around Section 460.19 Savings claims is required. If it is still deemed necessary, perhaps guidance can be given on how to include claims that go beyond R-value can be structured so as to be clear and acceptable to the FTC.

- (8) **Additional Unfair or Deceptive Practices:** What potentially unfair or deceptive practices, not covered by the Rule, related to insulation products are occurring in the marketplace? Are such practices prevalent in the market? If so, please describe such practices, including their impact on consumers. Provide any evidence, such as empirical data, consumer perception studies, or consumer complaints that demonstrates the extent of such practices. Provide any evidence that demonstrates whether such practices cause consumer injury. With reference to such practices, should the Rule be modified? If so, why, and how? If not, why not?

Comment:

In our opinion, the attempt to force all product types to compete solely on the basis of R-value is itself a deceptive practice. R-value is of limited use and to use it without limitations and clarifications conveys attributes of energy efficiency that may not exist when and how the product is installed.

- (9) **Product Coverage:** Should the Commission broaden the Rule to include products not currently covered? Provide any evidence that supports your position. What potentially unfair or deceptive practices related to products not covered by the Rule are occurring in the marketplace? Are such practices prevalent in the market? If so, please describe such practices, including their impact on consumers. Provide any evidence, such as empirical data, consumer perception studies, or consumer complaints that

demonstrates the extent of such practices. Provide any evidence that demonstrates whether such practices cause consumer injury.

Comment:

We do not see why pipe insulation and a variety of forms of duct insulation are not covered. It may be appropriate to use a variety of pipe/duct temperatures for testing to select the appropriate type/amount of insulation to be used.

- (10) ***Technological or Economic Changes:*** What modifications, if any, should be made to the Rule to account for current or impending changes in technology or economic conditions? How would these modifications affect the costs and benefits of the Rule for consumers and businesses, particularly small businesses?

Comment:

The current wording of the rule requires all manufacturers without accredited in-house labs to contract out testing work to independent third party labs. Either all manufacturers should be required to use independent labs or this requirement should be dropped.

- (11) ***Conflicts with Other Requirements:*** Does the Rule overlap or conflict with other Federal, State, or local laws or regulations? If so, how? Provide any evidence that supports your position. With reference to the asserted conflicts, should the Rule be modified? If so, why, and how? If not, why not? Are there any Rule changes necessary to help state law enforcement agencies combat deceptive practices in the insulation market? Provide any evidence concerning whether the Rule has assisted in promoting national consistency with respect to the advertising of insulation products.

Comment:

Several States maintain registries of thermal insulation products (e.g. California, Minnesota, etc.) Requirements of these agencies vary. We would like to see a uniform harmonized listing of products across the US.

B. Specific Questions Related to the R-Value Rule

- (1) ***Aging of Cellular Plastics:*** Should the Commission update the required test procedures for the aging of cellular plastic insulations under 460.5(a)(1) to ensure consistency among R-value claims and to otherwise prevent deception? Specifically, should the Commission amend the Rule to require ASTM 1303 (“Standard Test Method for Predicting Long-Term Thermal Resistance of Closed-Cell Foam Insulation”) or a different test? If so, to which products should this test apply?

Comment:

ASTM C1303: Ongoing research from the SPF industry demonstrates this ASTM standard may underestimate R-values for spray foam products by as much as 10%. We should oppose attempts to make ASTM C1303 a mandatory requirement. The American Chemistry Council Spray Foam Coalition (ACC-SFC) is available to present FTC with the interim

results from our long-term testing. The evidence indicates methods described in ASTM C1303 should not be made mandatory for all foam products.

Open-cell aging: ACC-SFC also has data suggesting 30-day aging (versus 180-days) is appropriate for open-cell SPF products. Because of the open cell structure of the materials, R-values of these products quickly stabilize after spray.

(2) **Affirmative Disclosures:** Should the Commission consider changing, adding, or removing affirmative disclosures required by the Rule for labeling and advertising related to mass insulation, reflective insulation, or radiant barriers?

Comment:

No comment.

(3) **Foam Insulation:** Given the significant increase in the use of foam insulation products since the last Rule review, should the Commission consider any Rule changes to help prevent deception in the marketing of such products, or reduce unnecessary burdens on sellers?

Comment:

Open-cell aging: See above + 30-day aging would reduce unnecessary burden of 180-day aging requirements for manufacturers.

(4) **Testing Requirements:** Should the Commission consider any changes to the testing provisions in the Rule? Such potential changes include, but are not limited to, test updates, the addition of new or existing tests not currently referenced in the Rule, or changes to other testing-related requirement such as the Rule's "tolerance" provision (§ 460.8). Are there any tests currently referenced in the Rule that should be removed?

Comment:

The Commission should incorporate a placeholder for a combined thermal metric that includes R-value, air leakage and orientation of an assembly to encourage more fulsome testing of products and product attributes.