

most important property of insulation.<sup>72</sup> Celotex argued that a change in the Rule would be burdensome to manufacturers. Instead, it recommended that the Commission require that sampling techniques “used to determine the Design R-value for an insulation must determine the average Design R-value for a full-size board unit.”<sup>73</sup> FPSA also did not support the addition of sampling procedures to the Rule.<sup>74</sup>

NAIMA agreed that no amendment to the Rule is warranted for sampling procedures. NAIMA stated that manufacturers generally test R-value every shift in the production process, and that this is certainly “representative of ongoing production,” so no specific sampling procedures should be required.<sup>75</sup>

T-Foil recommended that the Commission establish a complaint center for ASTM testing errors to prevent companies from “shopping” different labs for test results. T-Foil also recommended a disclosure on labels stating that actual values may differ up to 10% from the stated value, and specifying whether testing was done for summer or winter use (*i.e.*, direction of heat).<sup>76</sup>

#### Discussion

The Commission proposes to amend § 460.8 of the Rule to clarify that the tolerance limit applies to manufacturers and the manufacturing process (not to installation). The Rule will continue to require that professional installers and new home sellers apply loose-fill insulations according to the manufacturer’s installation instructions. It also will continue to allow them to rely on the accuracy of the manufacturer’s R-value and installation instructions, unless they have reason to believe that the instructions are inaccurate or not based on the proper tests. By specifying that the tolerance provision applies to manufacturers, the amendment would clarify that the tolerance is not intended to allow installers or new home sellers to deviate from the manufacturer’s installation instructions. For instance, the 10% tolerance provision does not apply to the thickness at which loose-fill insulation is installed. Under the current Rule, loose-fill insulation must be installed at a settled thickness equal to or greater than the minimum settled thickness specified by the manufacturer.

The Commission also proposes to amend section 460.8 of the Rule to require that the mean R-value of sampled specimens of a production lot meet or exceed the R-value shown in a label, fact sheet, ad or other promotional material for that insulation. For the purposes of this amendment, the term “production lot” means a definite quantity of the product manufactured under uniform conditions of production. In addition, under the amendment, no individual specimen of that insulation may have an R-value more than 10% below the R-value shown in a label, fact sheet, ad, or other promotional material for that insulation. The Commission believes that this change would clarify existing requirements and foster consistency in the application of the tolerance provision. While this procedure appears to be generally consistent with current industry practice and thus would not impose a significant burden, the Commission seeks comments regarding the impact that the amendment may cause.

The Commission is not proposing a specific sampling procedure. There does not seem to be any clear indication to suggest that manufacturers’ implementation of the tolerance provision results in the selection of test specimens that are not representative of ongoing production. The Commission believes that continued flexibility in that area is appropriate.

#### 4. Use of Current Test Data

##### Background

The ANPR considered whether current conditions would justify a requirement for a more specific retesting quality control mechanism. In this regard, the Commission solicited comments on how often manufacturers test their insulation products, how much the R-value of current production varies (for example, whether the R-value of the insulation being produced is consistently below the R-value claimed and previously determined, even if it is within the Rule’s 10% tolerance), how frequently manufacturers change their products, whether they retest products that have changed, and what retesting schedule would be most appropriate to ensure the accuracy of R-value claims made to consumers.

##### Comments

NAIMA opposed adding requirements to the Rule related to test data. NAIMA maintained that, as a matter of practice, manufacturers should test their products much more frequently than every two or three years to insure

compliance with the 10% R-value tolerance. NAIMA stated that some of its members measure their products’ thermal resistance on a daily basis, while others check this attribute monthly. NAIMA contended that this type of testing should be conducted regularly as part of a company’s quality-control procedure. According to NAIMA, the three-year test record retention period is sufficient. NAIMA further maintained that, when a manufacturer makes a significant change in a product, the product should undergo testing, and then the three-year cycle should begin again. NAIMA suggested that the Rule require thermal testing at least annually for all insulations covered by the Rule.<sup>77</sup>

#### Discussion

The ANPR noted that the Commission originally considered, but rejected, a staff recommendation to require manufacturers to repeat their R-value substantiation tests every 60 days because no single retesting frequency would be appropriate for all manufacturers, regardless of the type and amount of insulation they market. 64 FR at 48038. Instead, the Commission crafted the Rule to rely on a tolerance limit provision as the governing quality control mechanism, specifying 10% as the acceptable range of deviation, and requiring manufacturers to institute in-plant quality control procedures to stay within that tolerance. The Rule requires manufacturers to conduct a new R-value test on each new home insulation product, and to disclose the R-value (and related information) of each new product based on the new test. 64 FR at 48038. The Commission does not believe that existing practices justify the imposition of a new requirement for a specific retesting schedule. There is not enough information available to suggest that this issue constitutes a significant problem that warrants a new requirement in the Rule. Accordingly, the Commission is not proposing a Rule amendment in this area.

#### 5. Determining the Thermal Performance of Reflective Insulations

##### a. Traditional Reflective Insulations

##### Background

There are two basic forms of reflective insulation products in the residential market: (1) traditional single-sheet and multi-sheet reflective insulations; and (2) single-sheet radiant barrier reflective insulations. Traditional reflective insulation products normally are

<sup>72</sup> PIMA (3), pp. 12–13.

<sup>73</sup> Celotex (7), p. 3.

<sup>74</sup> FPSA (8), pp. 6–7.

<sup>75</sup> NAIMA (9), p. 20.

<sup>76</sup> T-Foil (1), pp. 5–6.

<sup>77</sup> NAIMA (9), pp. 20–21.