

NAIMA recommended that the Commission require that dry-applied loose-fill cellulose bags include an installed thickness column that reflects the magnitude of settling and loss of thickness that can be expected.⁹⁴ In addition, NAIMA strongly opposed characterizing “initial installed thickness” or “guaranteed thickness” as the only qualities pertinent in determining whether the quantity of insulation blown in meets or exceeds labeled R-value.⁹⁵ NAIMA maintained that, due to inherent variability of the installation process for loose-fill insulations, the Rule’s present requirements for the disclosure of minimum thickness should be retained. In NAIMA’s view, the only practical way to ensure that the minimum, long-term thickness and weight per square foot are achieved is to be sure to install at least the minimum number of bags per 1,000 square feet as specified on the bag label coverage chart. The number of bags per 1,000 square feet is based upon net area, which is the total area minus the area covered by framing members and other obstructions, while job size is usually figured as total (or gross) area. Because the net area will always be smaller than the gross, the number of bags per 1,000 square foot of gross area may be reduced slightly, generally 3% to 8%, from the number on the label. NAIMA provides installation guidelines for professional installers. Contractors who follow these and other recommended practices deliver to their customers the appropriate R-value. NAIMA also suggested that references should not be made to R-value for a one-inch thickness because it would encourage consumers to multiply the one-inch R-value by the desired number of inches to attain the total R-value throughout the entire space even though but R-value per inch is not always constant.

Discussion

As discussed in the ANPR (64 FR at 48044), the ICAA has long taken the position that the current requirements of the Rule make it very difficult for installers to ensure that they have installed the correct amount of insulation. The requirement to use bag count (*i.e.*, the weight of insulation material installed) as the measure of their compliance with the Rule creates complications for the installer. ICAA contends that the reason for this problem is that the person applying loose-fill insulation through a blowing hose in the attic has no way of knowing

at any given point how many bags have been loaded into the hopper of the blowing machine located in the truck outside. This may make it difficult to uniformly distribute within the attic the requisite number of bags for the job. In addition, ICAA has indicated in past comments that initial installed thickness information would help prevent their members from installing insulation only to the “minimum thickness” currently required on coverage charts. This “minimum thickness” information refers to the final settled thickness, not the material’s thickness immediately after installation. ICAA believes that many installers mistakenly use this information for installation purposes and, as a result, provide inadequate amounts of material. 64 FR at 48043. In addition, the Commission recognizes that the Rule’s bag count provisions require installers to make accurate attic measurements to determine the correct number of bags to use. It is possible that irregular attic configurations in many newer homes have made it more difficult to calculate accurate attic coverage areas.

The Commission recognizes that concerns persist about the installation of loose-fill. In some cases, installers fail to install sufficient insulation either because they apply material at the minimum settled thickness by mistake or they simply cheat consumers by providing inadequate amounts. In other instances, some installers inappropriately “fluff” their loose fill material by applying it with more air at a lower density. This practice increases thickness, at least initially, but reduces the density and total R-value. Under the current process, it is difficult for consumers to determine whether the correct insulation amount has been installed because they cannot rely on the installed thickness alone. Accordingly, the Commission believes that it is desirable to consider approaches that would allow consumers to determine, for themselves, whether adequate insulation has been installed. Requiring manufacturers to add a disclosure of “initial installed thickness” to coverage charts would address many of these problems.

In the past, the Commission has declined to require initial installed thickness on labels because there were no recognized procedures available to determine, on a uniform basis, a required initial thickness for all types of dry-applied loose-fill insulations. In addition, it has been unclear whether information about initial installed thickness, alone, would allow installers to provide the correct amount of material without having to count the

number of bags they have installed or otherwise ensuring they have applied the required amount of insulation material.

As ICAA indicated in its ANPR comments,⁹⁶ a relatively new procedure, ASTM C 1374 (“Standard Test Method for Determination of Installed Thickness of Pneumatically Applied Loose-Fill Building Insulation”), has been specifically developed to aid manufacturers in determining an initial installed thickness for their products. The Commission is now proposing to incorporate this procedure into the Rule and is seeking comments on whether this procedure will address the concerns that have been raised about loose-fill insulation. Specifically, the Commission is proposing to:

- Amend section 460.5(b) to add a new subsection (5) that would require manufacturers of loose-fill insulation to determine the initial installed thickness of their product at R-Values of 11, 13, 19, 24, 32, and 40 using ASTM C 1374–97 (“Standard Test Method for Determination of Installed Thickness of Pneumatically Applied Loose-Fill Building Insulation”).

- Amend section 460.12 (Labels) to require this initial installed thickness information on product labels.

- Amend section 460.5(b) to require manufacturers of loose-fill insulation to determine the blowing machine adjustments and feed rates necessary to achieve the initial installed thicknesses and indicate such information on the product label.

- Amend section 460.17 to require installers to comply with the initial installed thickness directions on product labels and to use the blowing machine adjustments and feed rates specified by the manufacturer.

Under the proposal, manufacturers would provide initial installed thickness information on labels and fact sheets pursuant to sections 460.12 and 460.13. Pursuant to section 460.17, installers would have to follow the initial installed thickness information on the label to determine whether the appropriate amount of insulation has been installed. They also would have to follow the manufacturer’s instructions for blowing machine settings. The Rule would continue to require installers to show fact sheets to consumers (section 460.15) and also provide the consumer with initial installed thickness and R-value information for specific jobs (section 460.17).

Under the Rule’s current requirements, it is difficult for

⁹⁴ NAIMA (9), p. 13.

⁹⁵ NAIMA (9), pp. 25–26.

⁹⁶ ICAA (5).