

Program Scope			
ID	Comment Summary	EPA's Response	EPA's Policy Intent
1	<ul style="list-style-type: none"> <li>Multiple respondents recommended that EPA not exclude products that are marketed to the commercial building sector because of the significant potential for energy savings resulting from increased adoption of high-performance insulation.</li> </ul>	<ul style="list-style-type: none"> <li>EPA would like to clarify that the ENERGY STAR program promotes efficient energy use in commercial buildings through a different approach using energy bill "benchmarking." Therefore, the program does not label commercial insulation products but is not excluding them as one solution for improving the energy performance of commercial buildings. The program does require that products be marketed to the residential sector, but not exclusively. Applicants must only demonstrate that they actively market to and have materials designed specifically for the residential sector.</li> </ul>	<ul style="list-style-type: none"> <li>EPA will not label commercial insulation products but will propose that eligible products must be marketed to the residential sector and that the ENERGY STAR brand be used only in association with residential applications for these products.</li> </ul>
2	<ul style="list-style-type: none"> <li>Multiple respondents recommended that air sealing products be labeled and otherwise treated the same as insulation products. Respondents noted that air sealing supports the goals of multiple ENERGY STAR programs, including Seal and Insulate with ENERGY STAR, ENERGY STAR for New Homes, and Home Performance with ENERGY STAR.</li> <li>Respondents also noted that standard test methods already exist for evaluating these products, so they can be reviewed and certified in the same way that insulation products can.</li> </ul>	<ul style="list-style-type: none"> <li>EPA has noted respondents' concerns and appreciates their willingness to work with EPA to promote air sealing products. In order to provide due consideration to this class of products, EPA will separately develop logo use guidelines for these products and their manufacturers.</li> <li>EPA hosted a webinar providing further details on EPA's planned proposal to promote air sealing products. At this point, EPA is not considering qualifying or labeling these products.</li> </ul>	<ul style="list-style-type: none"> <li>EPA will continue to promote the reduction of air leaks in homes through promotional and educational messaging. The guidance will be based on building science principles.</li> </ul>
3	<ul style="list-style-type: none"> <li>One respondent recommended that duct insulation be eligible to earn the label because it is included in the scope of the FTC R-Value Rule.</li> </ul>	<ul style="list-style-type: none"> <li>EPA already promotes sealing and insulating ducts in unconditioned spaces in homes through homeowner educational materials and through ENERGY STAR for New Homes and Home Performance with ENERGY STAR. Duct insulation is already included in the building codes and the ENERGY STAR New Homes specification. EPA is considering expanding general guidance on sealing and insulating duct systems for educational purposes.</li> </ul>	<ul style="list-style-type: none"> <li>EPA does not plan to include duct insulation products in the program's scope. However, EPA is considering including duct sealing in messaging about reducing air leakage in the homes.</li> </ul>

**Minimum R-Value**

ID	Comment Summary	EPA's Response	EPA's Policy Intent
4	<ul style="list-style-type: none"> <li>Multiple respondents recommended that EPA not adopt the proposed requirement that insulation products be at least R-5.</li> </ul>	<ul style="list-style-type: none"> <li>EPA recognizes that setting R-5 as a minimum may be burdensome at this time. R-3 insulation materials and finishing details for windows and doors are much more common in the market than R-5.</li> </ul>	<ul style="list-style-type: none"> <li>EPA will propose that eligible products must have a nominal R-value of R-3.0 (2 significant digits) or greater. The nominal R-value shall be the R-value of the product at the thickness at which it is sold to consumers.</li> </ul>
5	<ul style="list-style-type: none"> <li>Multiple respondents suggested that EPA align the minimum R-value threshold with other points of reference, such as model code (e.g., IECC) definitions of insulated sheathing or the insulated sheathing R-value requirements of the ENERGY STAR for New Homes Program, Version 3.0.</li> </ul>	<ul style="list-style-type: none"> <li>EPA recognizes that while the ENERGY STAR for Homes Program has established guidelines for mitigating thermal bridging that include continuous rigid insulation, the insulation levels set by that program apply to assemblies and not necessarily to products. Those standards are, therefore, not an appropriate definition for this product labeling program.</li> <li>EPA recognizes that the 2009 IECC defines insulated sheathing as "An insulating board with a core material having a minimum R-value of R-2." EPA wishes to promote insulation products that exceed a minimum, definitional threshold.</li> </ul>	
6	<ul style="list-style-type: none"> <li>One respondent recommended that EPA select a minimum R-value threshold such that all commonly available mass insulation products would meet or exceed the requirement.</li> <li>One respondent expressed concern that EPA's proposed R-5 minimum would exclude a number of rigid foamboard products.</li> </ul>	<p>EPA intends to promote products that provide meaningful thermal breaks and add improved insulation levels rather than products that are primarily used for air sealing and/or smoothing a surface but have low R-values. EPA understands that some rigid board insulation with low R-value would be excluded from labeling; however a main goal of ENERGY STAR is to promote more energy efficient homes. One way to accomplish this goal is to encourage the use of higher R-value insulation products.</p>	
7	<ul style="list-style-type: none"> <li>One respondent expressed concern that the proposed minimum would exclude products whose nominal R-value may be less than R-5, but which are commonly layered to create installations that as a whole are greater than or equal to R-5.</li> </ul>	<ul style="list-style-type: none"> <li>EPA understands that technically some products with R values below the minimum may be layered to meet the minimum insulation level; however, EPA cannot verify that products are being layered in the field.</li> </ul>	

		EPA prefers to associate the ENERGY STAR brand with products that EPA can verify meet recommended levels.	
8	<ul style="list-style-type: none"> <li>One respondent expressed concern that this minimum would require redesign of building products to accommodate thicker materials (e.g., J-channels in windows and doors would need to be wider).</li> </ul>	<ul style="list-style-type: none"> <li>EPA has adjusted the proposed minimum insulation value from R-5 to R-3.0 in order to promote higher R-value products while utilizing widely available finishing details (corners, trim, windows) when sheathing products are used under siding or are incorporated into other exterior finishing systems.</li> </ul>	
9	<ul style="list-style-type: none"> <li>One participant requested that EPA clarify the unit of thickness for which products must be R-5 or greater.</li> </ul>	<ul style="list-style-type: none"> <li>EPA proposes that the minimum be set using R-value without consideration for depth. Products with nominal R-values of at least R-3.0 at the thicknesses at which they are sold to consumers would be eligible. The minimum R-value will not apply to variable depth insulation products that are installed through blowing, spraying, or pouring.</li> </ul>	

**Testing Requirements**

<b>ID</b>	<b>Comment Summary</b>	<b>EPA's Response</b>	<b>EPA's Policy Intent</b>
10	<ul style="list-style-type: none"> <li>One respondent felt that EPA's proposal to require third party product testing duplicated existing laws and regulations regarding the characteristics of salable insulation products.</li> </ul>	<ul style="list-style-type: none"> <li>EPA would like to stress the voluntary nature of the ENERGY STAR program. EPA seeks to verify that labeled products and partner companies comply with certain germane regulations and laws in addition to other voluntary standards.</li> </ul>	<ul style="list-style-type: none"> <li>EPA will propose requirements to verify which products are eligible for labeling.</li> </ul>
11	<ul style="list-style-type: none"> <li>One respondent felt that in light of the substantial costs associated with EPA's proposed testing and certification requirements that products should not be "labeled" but instead "qualified".</li> </ul>	<ul style="list-style-type: none"> <li>EPA intends to utilize the term "<i>labeled</i>" to describe approved insulation products independent of the cost of testing. EPA feels that this distinction is important for protecting the integrity of the brand. It must be made clear to consumers and manufacturers that the Seal and Insulate with ENERGY STAR label does not make the same energy savings promise typically associated with the ENERGY STAR certification mark (i.e., the product saves more energy than a comparable, non-qualified product). Insulation is unique in that its energy impact on a</li> </ul>	<ul style="list-style-type: none"> <li>EPA will propose use of a special promotional mark for use on insulation products and they will not be labeled as ENERGY STAR qualified.</li> </ul>

		structure as well as the relative performance of one type of product compared to another type is highly dependent on climate, existing home characteristics for retrofit applications, design choices, and installation practices (including installation by homeowners in some cases).	
12	<ul style="list-style-type: none"> <li>One respondent felt that EPA's proposed requirement could add cost and complication to the process of printing ENERGY STAR marks on packaging. For example, through a minimum R-value requirement that would preclude products of some thicknesses from carrying the label, EPA should enhance brand protection activities to restrict use of the marks to labeled insulation products and ensure proper usage.</li> </ul>	<ul style="list-style-type: none"> <li>EPA has systems in place to protect the brand and respond to reports of misuse from manufacturer partners, whether those reports are made directly through the Seal and Insulate with ENERGY STAR Program or through <a href="mailto:logomisuse@energystar.gov">logomisuse@energystar.gov</a>.</li> </ul>	<ul style="list-style-type: none"> <li>EPA will continue to protect the integrity of the brand for partners and consumers by enforcing proper usage.</li> </ul>
13	<ul style="list-style-type: none"> <li>Respondents feel that data from third party, accredited labs should be sufficient to meet ENERGY STAR program standards and that there was no need for products to be certified by an EPA-recognized Certification Body (CB).</li> <li>Respondents expressed concern that the process of obtaining approval from Certification Bodies would likely be extremely expensive compared to the cost of having testing performed by accredited labs, and that this would preclude some manufacturers from participating in the program.</li> <li>Respondents also feel that it may take a very long time to obtain approval from CBs, and that this might discourage manufacturers from seeking the label.</li> </ul>	<ul style="list-style-type: none"> <li>EPA is fundamentally changing its data requirements for the ENERGY STAR program. All data on ENERGY STAR products will be required to be certified by a Certification Body. EPA recognizes that initial certification of some products may take time but EPA intends to give an initial phase-in period to help partners comply with the new requirements.</li> </ul>	<ul style="list-style-type: none"> <li>EPA will proceed with its programmatic requirement for data from third party, accredited labs and approved by certification bodies.</li> </ul>
14	<ul style="list-style-type: none"> <li>Respondents suggested that EPA recognize the National Voluntary Laboratory Accreditation Program (NVLAP) as an Accreditation Body for accrediting laboratories.</li> <li>Respondents suggested considering NVLAP-accreditation sufficient to certify a product's eligibility in place of requiring submission to a CB.</li> </ul>	<ul style="list-style-type: none"> <li>EPA does recognize all laboratory accreditation programs that meet the EPA program criteria. However, the data must be reviewed and approved by a Certification Body according to new ENERGY STAR program requirements.</li> </ul>	<ul style="list-style-type: none"> <li>EPA will proceed with its programmatic requirement for data from third party, accredited labs and approved by certification bodies.</li> </ul>
15	<ul style="list-style-type: none"> <li>One respondent asked EPA to clarify whether surface burning characteristics for radiant barrier and reflective insulation materials would need to be tested under ASTM E2599 or if the older ASTM E84 test method</li> </ul>	<ul style="list-style-type: none"> <li>EPA agrees that applications should be made under test methods current and relevant at the time of the application. EPA plans to allow some flexibility for the first round of testing</li> </ul>	<ul style="list-style-type: none"> <li>EPA intends to require that current test methods be used for testing.</li> </ul>

	would be acceptable for the initial round of reapplications.		
16	<ul style="list-style-type: none"> <li>Multiple respondents recommended that EPA require that R-value test methods fully reflect the effect of aging on performance.</li> <li>One respondent suggested that EPA define the acceptable methods for aging samples.</li> </ul>	<ul style="list-style-type: none"> <li>The Federal Trade Commission's R-Value Rule, which EPA in general intends to align program standards with, currently requires that samples of polyurethane, polyisocyanurate, and extruded polystyrene be aged. However, it is apparent that the issue has not been fully resolved in the FTC guidelines. EPA intends to align with FTC testing guidelines as soon as the FTC determines what aging methodology would be required.</li> </ul>	<ul style="list-style-type: none"> <li>EPA intends to align with the FTC requirements and guidelines for product aging as soon as they are established and fully incorporated into the CFR.</li> </ul>
17	<ul style="list-style-type: none"> <li>Multiple respondents suggested that products should be submitted for reapplication regularly.</li> <li>One responded suggested that this occur every three years from the date of initial labeling.</li> <li>One respondent suggested that this be when model code requirements for tested attributes change. For example, if EPA were to require a minimum R-value based on a model code, then products should be required to reapply when the model code's R-value requirements change.</li> <li>One respondent suggested that products be required to reapply when their formulations change.</li> </ul>	<ul style="list-style-type: none"> <li>EPA agrees that manufacturers should submit data on their insulation products to meet the latest IECC building codes as long as evaluation protocols exist for the latest codes. EPA recognizes that there may be some delay in evaluation of products as laboratories, lab accreditation bodies, and certification bodies establish new evaluation procedures. EPA also agrees that whenever a manufacturer changes product configuration or formulation that could impact thermal performance they will be required to have their product recertified.</li> </ul>	<ul style="list-style-type: none"> <li>EPA intends to require that manufacturers have their products evaluated on a regular application cycle as well as when their formulations change.</li> </ul>
18	<ul style="list-style-type: none"> <li>Several respondents suggested that products should be tested according to the most current test methods available at the time of their application to the program.</li> </ul>	<ul style="list-style-type: none"> <li>EPA agrees that products be tested with current test methods.</li> </ul>	<ul style="list-style-type: none"> <li>EPA intends to require the use of current test methods for testing products.</li> </ul>
19	<ul style="list-style-type: none"> <li>One respondent suggested that EPA adopt energy savings from a product as a uniform metric for evaluating all insulation products instead of defining different attributes to evaluate for each product.</li> </ul>	<ul style="list-style-type: none"> <li>EPA believes that utilizing energy savings as a uniform metric for labeling insulation products cannot be done without considering the following factors: characteristics of the home, location in the home installed, installation method, quality of installation, and climate. It may become possible in the future to consider an evaluation methodology that accounts for all of these factors, however, for this revision of the program, EPA is focusing on enhancing other areas in need of</li> </ul>	<ul style="list-style-type: none"> <li>EPA intends to define product attribute criteria for eligibility.</li> </ul>

		improvement, and aims at continuing with a promotional labeling approach for insulation products. The labeling program is provides value to consumers – and therefore is valuable to manufacturers as a market differentiator – by ensuring that a product delivers the claimed thermal performance (R-value) and safety attributes (burn tests).	
20	<ul style="list-style-type: none"> <li>One participant expressed concern that requiring private label products to be tested under their private label names would entail significant costs for distributors and other companies who private label products and might constrain the availability of some kinds of products to the market. They suggested that instead, EPA allow OEMs to conduct and ensure ongoing compliance with testing and certification requirements on the private labeling companies' behalf.</li> </ul>	<ul style="list-style-type: none"> <li>Insulation products will only be labeled within the context of a Partnership Agreement (PA) between EPA and the manufacturer (or private labeler) of a labeled product. Companies that private label products are fully and solely responsible for fulfilling their partner commitments at the time of labeling and on an ongoing basis. However, OEMs and private labelers may work out an agreement with the certification body to issue a separate certification report using the same testing data under the private labeler's name.</li> </ul>	<ul style="list-style-type: none"> <li>EPA intends to allow certification bodies to work with OEMs and private labelers of a product to establish agreements to issue certification reports under different names using the same test data and/or, installation instructions, and/or diagrams. However, private labelers are required to submit their own PA for consideration.</li> </ul>
	<ul style="list-style-type: none"> <li>One respondent requested that application materials be available electronically.</li> </ul>	<ul style="list-style-type: none"> <li>EPA concurs that applicants should have the option to complete and submit materials electronically.</li> </ul>	<ul style="list-style-type: none"> <li>EPA will provide electronic methods to complete and submit applications.</li> </ul>
<b>Product-Specific Requirements: Insulated Concrete Forms</b>			
<b>ID</b>	<b>Comment Summary</b>	<b>EPA's Response</b>	<b>EPA's Policy Intent</b>
21	<ul style="list-style-type: none"> <li>Several respondents recommended that ICFs be included in the scope of the program and that they be considered under product-specific requirements in light of their unique performance.</li> </ul>	<ul style="list-style-type: none"> <li>EPA currently recognizes the benefits of ICF assemblies through the ENERGY STAR for New Homes Program, which accepts ICF construction as a thermal bridging mitigation strategy. However, consensus based tests and standards for the evaluation of thermal mass benefits of such products have not been established. In addition, the variability of the thermal performance due to differences in climates has not been adequately addressed. Therefore, EPA will consider including ICFs and similar products with a thermal mass benefit when standards have been established and are acceptable to EPA</li> </ul>	<ul style="list-style-type: none"> <li>EPA intends to continue discussions of this issue in the next round of comments to determine whether to continue labeling products claiming a thermal mass benefit under a new set of criteria, allow labeling based on standard R-value alone (no mass benefit), or suspend the labeling of these products until the pertinent issues can be adequately addressed.</li> </ul>
22	<ul style="list-style-type: none"> <li>Multiple respondents suggested that clear-wall R-values</li> </ul>	<ul style="list-style-type: none"> <li>EPA recognizes the respondents concerns</li> </ul>	

	<p>are not appropriate measures of ICF performance because they do not reflect the impact of thermal mass during actual operating conditions.</p> <ul style="list-style-type: none"> <li>Multiple respondents also suggested that whole-wall R-value testing may be prohibitively expensive for some manufacturers and urged EPA to find an alternative.</li> <li>One respondent recommended that Oak Ridge National Laboratory's Thermal Mass Calculator not be used to assess ICF performance because it does not adequately account for benefits from thermal lag in mass walls.</li> </ul>	<p>about the accuracy and availability of test methods to assess the performance of ICF walls. As part of the specification development process, EPA will consider stakeholder input on test methods, including working with ORNL and industry to assess the suitability of ORNL's Thermal Mass Calculator and other reasonable evaluation techniques.</p> <ul style="list-style-type: none"> <li>In the absence of better standards for test methods and performance thresholds, it is not feasible to include ICFs at this time.</li> </ul>	
23	<ul style="list-style-type: none"> <li>One respondent requested that EPA consider their thermal mass wall product for eligibility under its own product class because of significant performance differences between it and other ICFs.</li> </ul>	<ul style="list-style-type: none"> <li>EPA will consider labeling thermal mass wall products once consensus standards and tests have been developed for testing and evaluation of such products.</li> </ul>	<ul style="list-style-type: none"> <li>EPA intends to continue discussions of this issue in the next round of comments to determine whether the EPA should continue labeling products claiming a thermal mass benefit under a new set of criteria, allow labeling based on standard R-value alone (no mass benefit), or suspend the labeling such products until the pertinent issues can be adequately addressed.</li> </ul>

**Product-Specific Requirements: Radiant Barriers**

<b>ID</b>	<b>Comment Summary</b>	<b>EPA's Response</b>	<b>EPA's Policy Intent</b>
24	<ul style="list-style-type: none"> <li>Several respondents recommended that radiant barriers be included in the scope of the program and that they be considered under product-specific requirements in light of their unique performance.</li> <li>One respondent suggested that EPA only consider specific applications of radiant barriers as a way to address EPA's concerns over the wide range of applications of radiant barriers and their associated effectiveness.</li> </ul>	<ul style="list-style-type: none"> <li>EPA currently recognizes the benefits of radiant barriers when installed in certain orientations and in certain climates. Radiant barriers are also recognized by the ENERGY STAR for New Homes Program as one solution for reducing hot attic temperatures in IECC climate zones 1-3 when ducts are present. EPA continues to have concerns about radiant barrier performance in certain climates, inadequate installation guidelines, and safety in some applications that have yet to be resolved. EPA will consider continuing to label radiant barriers for promotional and educational purposes if climate specific</li> </ul>	<ul style="list-style-type: none"> <li>EPA intends to continue discussions of this issue in the next round of comments to determine whether the EPA should continue labeling radiant barriers under a new set of criteria or suspend the labeling of radiant barriers until the pertinent issues can be adequately addressed.</li> </ul>

		guidance can be developed and clear installation guidelines are established.	
25	<ul style="list-style-type: none"> <li>One respondent recommended that EPA refer to ASTM C1340, being updated, to determine the climate-appropriateness of radiant barriers.</li> <li>One respondent noted that ASTM C1313 provides the basis for consideration of radiant barriers within the framework of the IECC as a way to address EPA's concerns that radiant barriers are not clearly defined and insufficient guidance is provided on their use in the IECC.</li> </ul>	<ul style="list-style-type: none"> <li>EPA will consider computer evaluation of radiant barrier performance as one evaluation option. EPA will need independent documentation that such models are robust, accurate, and well evaluated.</li> <li>EPA acknowledges that ASTM test method C1313 may be a basis for IECC to consider sheet radiant barriers. However, EPA's primary concerns are regarding poor or misleading installation instructions and failure to address performance variations caused by climate. ASTM C1313 does not address these concerns; therefore, EPA will not use ASTM C1313 as a basis for continuing to label the product.</li> </ul>	

**Product-Specific Requirements: Reflective Insulation**

<b>ID</b>	<b>Comment Summary</b>	<b>EPA's Response</b>	<b>EPA's Policy Intent</b>
26	<ul style="list-style-type: none"> <li>Several respondents recommended that reflective insulation be included in the scope of the program and that it be considered under product-specific requirements in light of its unique performance.</li> <li>In response to EPA's concerns that reflective insulation poses unique problems relating to quantifying and effectively communicating performance to consumers, one respondent noted that these problems are not different in kind from the problems associated with assessing and communicating the thermal performance of mass insulation (hence the necessity for the FTC's R-value rule).</li> </ul>	<ul style="list-style-type: none"> <li>Reflective insulation poses unique challenges because the thermal benefits are greatly affected by installation practices such as air space, heat flow direction, and convection in the system. Except for products that are pre-assembled, self-contained assemblies, reflective insulation by its nature depends on a knowledgeable installer. EPA seeks detailed standards for installation of reflective insulation systems to ensure that homeowners, contractors, and building owners can consistently realize the advertised benefits. EPA suggests that certain clearly specified applications of the reflective insulation in walls systems be reviewed and 3<sup>rd</sup> party certified for manufacturers to label their product.</li> </ul>	<ul style="list-style-type: none"> <li>EPA intends to continue discussions of this issue in the next round of comments to determine whether to continue labeling reflective insulation under a new set of criteria or suspend the labeling reflective insulation until the pertinent issues can be adequately addressed.</li> </ul>
27	<ul style="list-style-type: none"> <li>One respondent suggested that EPA consider as eligible reflective insulation products that meet its proposed minimum R-value.</li> </ul>	<ul style="list-style-type: none"> <li>Since the calculated R-value of reflective insulation systems is highly dependent on the position of air spaces around the product and heat flow direction, EPA does not plan to</li> </ul>	

		apply the minimum R-value requirement to reflective insulation. However, EPA is considering requiring that the product must have 3 <sup>rd</sup> party certification for at least one installed system.	
28	<ul style="list-style-type: none"> <li>One respondent expressed concern that the limited availability of appropriate testing apparatus (rotatable hot boxes) will constrain manufacturers' ability to provide tested R-values for their products.</li> <li>Another respondent asked if EPA would consider allowing R-values derived from computer modeling performed by accredited laboratories as a substitute for R-value testing in hot boxes.</li> </ul>	<ul style="list-style-type: none"> <li>EPA recognizes that additional testing using specialized equipment may be necessary to test the products. However, EPA prefers real test performance data to label products. EPA will consider computer evaluation of reflective insulation system performance as one evaluation option. EPA will need independent documentation that such models are robust, accurate, and well evaluated.</li> </ul>	

**Product-Specific Requirements: Structural Insulated Panels**

<b>ID</b>	<b>Comment Summary</b>	<b>EPA's Response</b>	<b>EPA's Policy Intent</b>
29	<ul style="list-style-type: none"> <li>Several respondents recommended that SIPs be included in the scope of the program and that they be considered under product-specific requirements in light of their unique performance. One respondent expressed concern that clear-wall R-values would not appropriately communicate the benefits of SIPs to consumers unless the clear-wall R-values resulting from using cavity insulation in framed walls were also provided for comparison.</li> </ul>	<ul style="list-style-type: none"> <li>EPA currently recognizes the benefits of SIP assemblies through the ENERGY STAR for New Homes Program, which accepts SIP construction as a thermal bridging mitigation strategy.</li> <li>EPA recognizes that clear-wall R-values may not be the best approach for SIPs or other panelized products. EPA is currently discussing the use of Whole-wall R-values as a better approach. However, consensus test methods do not appear to be fully developed at this time. Further, labs accredited to do such tests or certification bodies are not currently available. In the absence of better standards for test methods and certification systems, EPA will continue discussions of this issue in the next round of comments.</li> </ul>	<ul style="list-style-type: none"> <li>EPA intends to continue discussions of this issue in the next round of comments to determine whether to continue labeling SIPs and other panelized wall systems under a new set of criteria or suspend labeling of SIPs until the pertinent issues can be adequately addressed.</li> </ul>

**Product-Specific Requirements: Spray and Pour-in-Place Foam**

<b>ID</b>	<b>Comment Summary</b>	<b>EPA's Response</b>	<b>EPA's Policy Intent</b>
30	<ul style="list-style-type: none"> <li>One respondent expressed concern over EPA's desire to provide information to installers and homeowners on cure times and re-entry times. The respondent noted</li> </ul>	<ul style="list-style-type: none"> <li>EPA is aware of research t by industry groups to establish general guidelines for cure times and re-entry times for workers and occupants.</li> </ul>	<ul style="list-style-type: none"> <li>EPA plans to include spray and pour-in-place foam for whole wall, ceiling, or floor insulation</li> </ul>

	<p>that those times are highly dependent on local conditions and installer and occupant choices.</p> <ul style="list-style-type: none"> <li>The respondent further noted that MSDS on finished foam do not provide meaningful information about exposure risks associated with installation of uncured foam. The respondent also feels that MSDS on the chemical ingredients effectively communicate that information to installers, but not to homeowners.</li> </ul>	<p>EPA believes even general guidance on cure rates and re-entry times would be helpful to reduce the risk of exposure to hazardous chemicals.</p> <ul style="list-style-type: none"> <li>EPA and OSHA recognize that workers installing spray foam products are exposed during the chemical reactions that occur during the installation of these products. In addition, homeowners should be informed of the chemicals and the reactions that occur during spraying in their home in case of exposure through residual off-gassing or off-ratio installation.</li> </ul>	<p>applications with some special additional hazardous material education and labeling requirements.</p>
31	<ul style="list-style-type: none"> <li>One respondent proposed that spray and pour-in foam products be considered eligible if they are at least R-5 at 1 inch or nominally fill the cavity in which they are installed.</li> </ul>	<ul style="list-style-type: none"> <li>EPA will not apply the minimum nominal R-value requirement to products with variable R-value thicknesses, like spray or pour-in-place foams.</li> </ul>	