



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
AIR AND RADIATION

June 25, 2012

Dear ENERGY STAR® Roof Products Stakeholder or Other Interested Party:

With this letter, the U.S. Environmental Protection Agency (EPA) is pleased to share for stakeholder review and comment the ENERGY STAR Draft 2 Version 3.0 Roof Products Specification and ENERGY STAR Test Method for Roof Products: Maintenance of Solar Reflectance.

In addition, EPA has finalized a number of interim clarifications to the existing ENERGY STAR Roof Products specification, as reflected in the attached Version 2.3. Due to the nature of these changes, all currently qualified products will remain qualified.

Key Elements of Version 3.0 Draft Proposal

At this time, EPA welcomes stakeholder feedback on the ENERGY STAR Draft 2 Version 3.0 Roof Products Specification and ENERGY STAR Test Method for Roof Products: Maintenance of Solar Reflectance. Interested stakeholders are encouraged to submit comments to EPA **by July 23, 2012**. EPA appreciates the comments received in response to the proposed Draft 1 Version 3.0 specification. These comments along with EPA's response can be found at www.energystar.gov/productdevelopment.

Acceptable Laboratories: In Version 3.0, EPA has upheld the requirement that all roof products must be tested on a weathering farm approved by an EPA-recognized certification body as proposed in Draft 1. Use of existing roof installations to fulfill aged solar reflectance testing requirements will no longer be accepted for ENERGY STAR qualification after March 1, 2016. *EPA reviewed stakeholder comments and maintains that existing testing requirements are subject to potential manipulation of data. EPA believes that the existing test procedure for aged reflectivity is outdated (12 years old) and raises questions as to the integrity of test results.*

Single Climate Zone Weathering Testing: It has been suggested that all roof products be weathered in a single climate zone such as the state of Florida, which will allow end users to fairly compare products based on climate conditions and avoid testing in zones that produce more favorable results but are not representative of true performance. EPA is open to specifying allowed climate zones, but believes that restricting testing to one state may have an undue negative impact on manufacturing partners and laboratories using existing weathering farms in other states. EPA is interested in receiving feedback on alternative proposals.

Accelerated Aged Reflectance Test Method: EPA remains interested in an accelerated aged reflectance test method and will continue to monitor efforts by the U.S. Department of Energy (DOE) in pursuing its Advanced Surfaces (Accelerated Aging) Project. Once final, EPA will review the test method and discuss with stakeholders whether to adopt it for use in the ENERGY STAR program. If adopted, this test method would be an accepted alternative to the proposed weathering farm test procedure. EPA encourages partners to stay engaged in this process considering that this could be an attractive testing alternative and that the accelerated aging test method could potentially be finalized before the effective date of Version 3.0.

Specification Effective Date: The effective date has been revised to allow a period of 3 years and 6 months from the finalization of this specification. As noted in Draft 1, all products must be third-party certified to remain ENERGY STAR qualified. Products currently on the qualified product list that have not

been third-party certified will need to be retested to remain qualified. However, products that have been tested on weathering farms, but not third-party certified, can remain qualified by having the original testing data submitted and approved by an EPA recognized certification body. The Version 3.0 specification will take effect on March 1, 2016.

Version 2.3 Clarifications

EPA has made the following clarifications to Version 2.2 (now 2.3) ENERGY STAR requirements:

- **Emissivity Test Methods:** Effective July 1, 2012, emissivity test results using ASTM E408 will no longer be accepted for ENERGY STAR qualification. It has come to light that ASTM E408 and ASTM C1371-04a(2012)e1 test for different and non-comparable properties. Specifically, ASTM E408 measures total hemispherical emittance and ASTM C1371 measures direct normal emittance. Furthermore, ASTM E408 references an obsolete device i.e., the Gier Dunkle. The new device on the market is neither verified nor included in the standard.
- **Excluded Products:** Roof products intended for use on siding or walls are not eligible for ENERGY STAR qualification.
- **Variegated Roof Products:** Variegated roof products are generally not eligible for qualification as a Color Family Additional Element consistent with the Cool Roof Rating Council's product rating program. EPA has confirmed that variegated roof products may only qualify using Maintenance of Solar Reflectance testing.
- **Compound Ratings:** Compound Product Ratings, as defined by the Cool Roof Rating Council, can be used to qualify roof products as ENERGY STAR.
- **Changes to Product Formulation:** EPA will work with ENERGY STAR recognized certification bodies to review and allow minor changes, such as base material supplier changes, to ENERGY STAR qualified roof products without retesting as long as the change will not impact solar reflectance or thermal emittance properties. Any changes to product formulation must be documented and sent to EPA for review.

Comment Submittal

Stakeholders are encouraged to submit comments on the Version 3.0 Draft 2 proposal to Roofs@energystar.gov by **July 23, 2012**. All comments will be posted to the ENERGY STAR Product Development website at www.energystar.gov/revisedspecs unless the submitter requests otherwise.

The exchange of ideas and information between EPA, industry, and other interested parties is critical to the success of ENERGY STAR. Your input is very valuable during this specification revision process. Please direct any specific questions to Steve Ryan, EPA, at Ryan.Steven@epa.gov and (202) 343-9123 or Michael Holzheimer, ICF International, at Michael.Holzheimer@icfi.com and (202) 862-1584.

Thank you for your continued support of ENERGY STAR.

Sincerely,



Steve Ryan
ENERGY STAR Roof Products Program Manager
U.S. EPA, ENERGY STAR Program