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ENERGY STAR Program  
U.S. Environmental Protection Agency  
Subject: Final Draft Certification and Verification Requirements

August 6, 2010

Dear Mr. Monahan,

The Cool Roof Rating Council (CRRC) appreciates the opportunity to comment on the Final Draft Conditions and Criteria for Certification Bodies for the ENERGY STAR® Program. Please find below our recommendations to strengthen the ENERGY STAR® criteria. In addition, kindly consider our proposal to serve as the rating entity for roofing products.

**ISO/IEC 65 Accreditation (Section 1.a)**

The CRRC is not ISO 65 accredited, though we currently operate as an independent, impartial and non-discriminatory organization in line with the principles of ISO 65. We request that the EPA remove the ISO 65 accreditation as a strict requirement for Certification Body accreditation, and allow for equivalent status. This requirement could pose hardship for smaller non-profit organizations interested in serving as an EPA Certification Body.

**ENERGY STAR Laboratories (Section 1.c.i & ii)**

The CRRC program will only accept energy performance ratings from our Accredited Independent Testing Laboratories, and will not certify data provided by other testing labs. As mentioned in previously submitted CRRC comment letters, allowance of manufacturer testing laboratories to provide roofing radiative measurements introduces a loophole in the integrity of the ENERGY STAR program. Supervised testing conducted at manufacturer laboratories is not as stringent a verification process compared to third party testing. The CRRC strongly recommends that the EPA remove the allowance of manufacturer testing laboratories from the Qualified Roofing Products verification program.

**ENERGY STAR Qualification (Section 2)**

The CRRC program is setup as a rating program, providing credible energy performance radiative property ratings for roofing products. The program lists these ratings as a free public service on our online Rated Products Directory and does not specify any minimum requirements to be qualified as a cool roof product. The CRRC Rated Products Directory does not actively specify whether a product meets or exceeds performance parameters specified by any program (like ENERGY STAR) or code. However, determining if a product meets ENERGY STAR qualifications is currently feasible under CRRC's Rated Products Directory search function. As the listing of ENERGY STAR qualified products will be maintained by the EPA, there may be no conflict with the CRRC providing a listing of products directly to the EPA that meet ENERGY STAR qualifications. This change in CRRC role from a rating



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body to a body that verifies products meet ENERGY STAR requirements may require a CRRC Board and Membership vote of approval.

### **Verification Testing: Product Selection Guidelines (Section 3.a.i.3)**

Under CRRC Random Testing protocol, products are selected with a software program that has the following parameters:

- Products will be selected at random, but the probability of being chosen increases for products not selected in previous years and listed in the directory for many years. If a product is sampled or added to the directory the previous year, then it has one chance of being picked the following year. Products that were sampled or added to the directory two years past have two chances, etc. It is still possible for products to escape sampling, but the longer they escape sampling, the more likely it is that they would be selected the next year.
- Products that failed testing in the previous year and have been resubmitted into the CRRC Rated Products Directory are automatically selected.

Please note the CRRC randomly selects from all CRRC licensed seller products, not limiting the verification testing selection to ENERGY STAR qualified models rated by the CRRC. Differing from the EPA Certification Body verification testing criteria, the CRRC does not put a higher priority for random testing selection on high market sellers or referrals from third parties. The organization does not have a mechanism in place to determine which products are high market sellers. The CRRC does have a process in place to verify questioned products, which is aligned with the Challenge Testing process outlined in section 3.c. As this process is already accounted for separately under the Challenge Testing process, it is redundant and should be additional to the Verification Testing selection, as opposed to included in the 10% of products selected under Verification Testing.

### **Verification Testing: Procurement of units for testing (Section 3.a.i.4.a)**

The CRRC procures random testing samples primarily off-the-line from third party Quality Assurance Organization collection agencies (75%) and secondarily off-the-shelf from listed contractors and distributors (25%). For roofing products off-the-shelf collection is a far more difficult method for product collection. It is less time efficient as well as problematic to gather the products in the sizes needed for product verification testing rather than large batches as sold to the market. The CRRC collects off-the-shelf products from manufacturer provided contractors and distributors. Though we agree that procuring products direct from the market is ideal, our program has found that in order to complete yearly random testing within an acceptable time frame, collecting products using third parties as the main source is necessary.

In addition to the above recommendations, please find below other issues of concern, which have not yet been addressed in the EPA Criteria documents. As these issues are specific to the roofing product industry, the CRRC offers technical assistance to ENERGY STAR in developing the Qualified Roof Product Specification document.





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### **Acceptance of Previously Rated ENERGY STAR Product Ratings**

The CRRC strongly cautions the EPA against grandfathering in the ratings of previously rated ENERGY STAR products. This exemption will introduce inconsistencies between the old ratings and new ratings that undergo the rigorous certification process. Previously rated ENERGY STAR roofing products may have employed different aged testing methods, resulting in discrepancies between published ratings. Additionally, the newly created verification process will not be able to police the thousands of products previously rated. With over 5,000 Qualified Roofing Products currently listed, the EPA cannot expect verification testing of 10% of randomly selected products to guarantee accuracy and credibility in energy performance ratings. As the EPA is invested in developing a robust verification program, please recognize that all products must undergo the same high quality of certification.

### **Roofing Products Aging Requirements**

Unlike many other ENERGY STAR products, the energy performance of roofing products may significantly change with age. As such the CRRC has developed processes to expose products to three-year outdoor weathering in three different climate zones using accredited Test Farms. The CRRC offers to work with EPA to accurately account for roofing product aging in the Qualified Roofing Product Specification document. As part of this collaborative process the CRRC will share with the EPA our methodology for Test Farm requirements, chain of custody protocol between the Test Farm and Testing Laboratory, as well as our knowledge of how standards and programs handle aged ratings for roofing products.

### **Test Methods for ENERGY STAR Roofing Products**

The CRRC employs standardized ASTM test methods and when necessary, rigorously researches and develops new test methods with national laboratories and other stakeholders to measure new products with accuracy and consistency, in accordance with the CRRC-1 Product Rating Program Manual. As an increasing number of roofing product types enter the cool roof marketplace, the CRRC updates the Rating Program to ensure that accurate test methods are being applied. The CRRC has taken the lead on addressing and researching viable and credible test methods to rate the radiative properties of roof products. The CRRC's Product Rating Program employs the technical expertise of the Test Laboratory and Test Farm Subcommittee, Technical Committee (comprised of technical experts in the roofing industry), and Board of Directors, as well as research facilities including the Lawrence Berkeley National Laboratory and Oak Ridge National Laboratory, to understand the complications of rating the wide variety of products available. The CRRC offers our diverse and balanced technical expertise to the EPA in developing the Qualified Roofing Product Specification test methodology.

### **Other Unique Roofing Product Programming Requirements**

CRRC's Program extends beyond the EPA specified Certification Body requirements and has evolved to include procedures for handling complex issues and uncommon scenarios for rating roofing products. Our program has established methodology for sample preparation, private labeling, sharing of product ratings, measuring product thickness (as needed for certain product types), rating custom products, and



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compound rating allowances. Additionally, the CRRC has developed a Color Family Program for rating types of products that have thousands of colors within a narrowly defined color range, for example factory-coated metal. The CRRC offers to work with the EPA to ensure that these unique rating protocols are in line with the ENERGY STAR verification program for Qualified Roofing Products.

### **Overview**

The CRRC's comprehensive and independent Product Rating Program has operated for over 10 years, developing processes to manage complex testing and procedural issues and ensure accurate ratings for roofing products. The CRRC hopes that EPA recognizes the effort our organization has put towards ensuring credible energy performing roofing products are sold on the marketplace. We offer our extensive knowledge and connection to a diverse cross-section of the roofing industry to the EPA in developing the Qualified Roof Products Specification.

Thank you again for considering our comments. In particular, we hope you favorably consider CRRC's proposal for appointment as the rating entity for the ENERGY STAR® Qualified Roof Products Program. Please contact me with any questions or concerns.

Sincerely,

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