



January 19, 2006

Charles Anderson  
ICF Consulting

Dear Mr. Anderson:

As requested, ERA (EPDM Roofing Association) has reviewed Draft 1 of the ENERGY STAR Version 2.0 Roof Products Specification. In response to this review, we are writing to offer one comment about an item that was not included in this revision. Please see the following recommendation for the roof products standard:

COOL BALLASTED ROOFING SYSTEM:

Our comment centers on a roof system defined as a Cool Ballasted Roofing System, a system identified as an option offering heat shielding for the building. Under the auspices of the Single Ply Roofing Industry (SPRI), Oak Ridge National Laboratories conducted extensive studies evaluating the thermal performance of stone ballasted roofs to determine how they shield a building from heat gain. This study included ballast weights of 10, 17 and 24 pounds per square foot (psf), paver ballast at 24 psf, and controls of a white TPO and black EPDM roof membranes. This study showed that when the ballast weight is a minimum of 15 psf or greater, the ballasted system, stone or paver, performs the same or better than the ENERGY STAR listed TPO product. This study was presented to EPA and a submittal was made to have this Cool Ballasted system listed as a qualified ENERGY STAR roof product. However, Draft 1 of the new standard did not contain this option. It is being recommended that this be included in Draft 2.

To further clarify the Cool Ballasted roof system, the submittal states that the roof system to be installed to the national standard ANSI/SPRI RP 4, "Wind Design Standard for Ballasted Single-ply Roofing Systems". This standard defines the stone and paver types that can be used with single ply systems and the minimum weights required to meet the wind loads for the various parts of the country. The Cool Ballast system then identifies the minimum weight for the ballast to be 15 psf to be quality as cool system. The RP 4 standard is to be updated to include this new category for ballasted systems.

The general practice of the single ply industry and the specific practice of the two largest suppliers of the ballasted roofing system that ERA represents is to issue a warranty on every roofing project. This warranty covers the components of the system, the water tightness of the roof, the workmanship, and gives a level of wind resistance performance. Before this warranty is issued, the roof must be

inspected by the manufacture's employee to assure that roof conforms to the specifications and details of the project. If the roof does not comply, a work order is issued to have the roof deficiencies corrected. The roof must conform to the specs and details or the warranty is not issued by the manufacture. The control in this is the building owner holds money back from the contractor. The contractor is not paid until the warranty is delivered. This procedure will be in place for the Cool Ballast design as with any of the other single ply systems. The manufacturer would confirm through their inspection that the roof meets the Cool Ballast design specification.

Those are the extent of the comments on the Draft 1 of the ENERGY STAR Version 2.0 Roof Products Specification. ERA concurs that it is a good practice to update performance standards periodically to keep them current with the latest technologies that have developed. That is why we feel it is important that the Cool Ballasted Roof System be an addition to the ENERGY STAR roofing products listing. Thank you for taking action on this recommendation.

Sincerely,

James Hoff  
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EPDM Roofing Association  
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