12- BSTD-1 Page 1 of 3

12-BSTD-1

Yasny, Ron@Energy

Sent: Monday, May 14, 2012 2:36 PM
To: Energy - Docket Optical System

Categories: Ready to Process

Please docket 12-BSTD-1

 DOCKET

 12-BSTD-1

 DATE
 MAY 14 2012

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 MAY 14 2012

From: Bozorgchami, Payam@Energy Sent: Monday, May 14, 2012 2:27 PM

To: Stan Graveline

Cc: Brook, Martha@Energy; Shirakh, Maziar@Energy; Yasny, Ron@Energy; Ware, David@Energy

Subject: RE: Title 24

Hi Stan,

I appreciate the letter you have sent, dated May 8th, in response to my phone conversation with Jim Calkins of your company regarding support for the low-slope cool roof aged solar reflectance values we've proposed for the 2013 Standards. I'm disappointed that your letter indicates you do not support these changes as I had thought otherwise from conversations with you, Mr. Calkins, and the participation you and your company has provided in public meetings to review the progression of proposed cool roof measures; particularly, the recognition staff has given to industry concerns expressed for product availability and the ability to trade roof insulation for lower reflectance values.

The Energy Commission has a legislative mandate to periodically update the Energy Efficiency Standards. Your letter questions the need for these changes, the lack of demonstratable benefits, possible market disruption, and a short implementation period. The docketed CASE reports: Nonresidential Cool Roofs, October 2011, and Draft Cool Roof Nonresidential Consolidated Cost Summary, Architectural Energy Corporation, February 6, 2012 clearly quantify the energy and environmental benefits of cool roofing products to the state and explain the methodology used to derive this conclusion. Your letter does not suggest alternative scenarios that should be considered to assist our work in reaching constructive results. In addition, it's not clear why higher reflectance values for roofing products would disrupt the market when products are already available and in many situations products with high reflectance are being used regularly. We realize that the proposed aged solar reflectance values could necessitate some manufacturers to improve some product lines, but at the request of the roofing industry staff has incorporated proposed measures that will help bridge this implementation period by allowing insulation tradeoffs for lower reflectance values. Again, this allowance was placed in the proposed 2013 Standards specifically in response to your industry's concerns.

Your letter further notes concerns regarding staff's proposed aged solar reflectance of 0.63, a minimum thermal emittance of 0.75, and a minimum SRI of 75. This concern was first raised by you in a letter of February 2nd, then again in correspondence to us of April 3rd and April 10th. David Ware responded to you on this issue in his email of April 11th. Your concern is that the proposed 2013 SRI is higher than would be the calculated result from using the Solar Reflectance Index Calculator. This is correct and Mr. Ware's response to you explained why.

The driver of energy savings due to a cool roofing product is the product's solar reflectance, not its thermal emittance. Thermal emittance is an allowed product tested value but it is only one element the helps define the product's performance characteristics. The roofing market has matured since the Energy Commission first introduced in the Standards the value of cool roofs as a measure for helping increase building efficiency. Cool roofs are a key element is helping reduce greenhouse gas emissions and as such, play a major role in helping meet California energy policy goals. A product's tested aged

12- BSTD-1 Page 2 of 3

solar reflectance is a much more accurate measurement of performance than thermal emittance, and the Standards rely upon that measured value to establish the benchmark of performance for cool roofs. However, not all roofing products are tested, nor do they have aged solar reflectance values. Hence, the Standards specify alternative values that can be used for showing compliance—thermal emittance and a calculated SRI. SRI is an allowed "alternative" to meeting the required aged solar reflectance. Specifying an SRI of 75 helps maintain the energy savings for roofing products that have higher aged solar reflectance—it helps maintain parity between manufactures who have committed to full testing of their products and those that do not.

Sincerely,

Payam

Payam Bozorgchami, P.E. Associate Civil Engineer California Energy Commission (916) 654-4618

From: Stan Graveline [mailto:graveline.stan@us.sika.com]

Sent: Thursday, May 10, 2012 7:31 AM **To:** Bozorgchami, Payam@Energy

Cc: James Calkins; Chris Ogg; Jesse Quezada; Brian Whelan

Subject: Title 24

Good morning Payem

Further to your request to our James Calkins, please find attached our position with the proposed language for the cool roof prescriptive requirements.

They signed original will be mailed to you.

Please do not hesitate to call should you have any questions

Best regards

Stan

Stanley P. Graveline
Vice President Technical Services
Sika Sarnafil
A Division of Sika Corporation
100 Dan Road
Canton, MA. 02021

Toll Free: 800-451-2502 x3209

Direct: 781-332-3209

Mobile: 781-718-3237

Fax: 781-828-5365

Graveline.stan@us.sika.com

www.sikacorp.com

12- BSTD-1 Page 3 of 3



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