

December 11, 2007

CALIFORNIA ENERGY COMMISSION
 Attention: Docket No. 07-BSTD-1
 Dockets Office
 1516 Ninth Street, MS-4
 Sacramento, CA 95814

DOCKET	
07 - BSTD -1	
DATE	DEC 11 2007
RECD.	DEC 11 2007

Re: Comment on 45-day language (Docket No. 07-BSTD-1)

Dear Sirs,

I am writing this letter on behalf of SPRI to thank-you for the opportunity to comment on the 45-day language for the proposed revisions to Title 24, Part 6.

SPRI is pleased to see the recognition of the thermal efficiency benefits of ballasted roof systems. We are writing to request that one modification be considered.

Section 143(a)1A4, provides an exception to the requirement to install a cool roof on nonresidential buildings with low-sloped roofs, in climate zones 2-15 if a roof with thermal mass is installed. This exception currently states:

"Roof constructions that have thermal mass over the roof membrane with a weight of at least 25 lb/ft²."

SPRI is requesting that this be changed to read:

"Roof constructions that have thermal mass over the roof membrane with a weight of at least 25 17 lb/ft²."

This request is consistent with the findings of the SPRI sponsored study conducted at Oak Ridge National Laboratory. This study concluded that:

- After 18-months 17 lb/ft² ballasted roofs are as effective as cool roofs in mitigating peak demand (See the attached Figure 9).

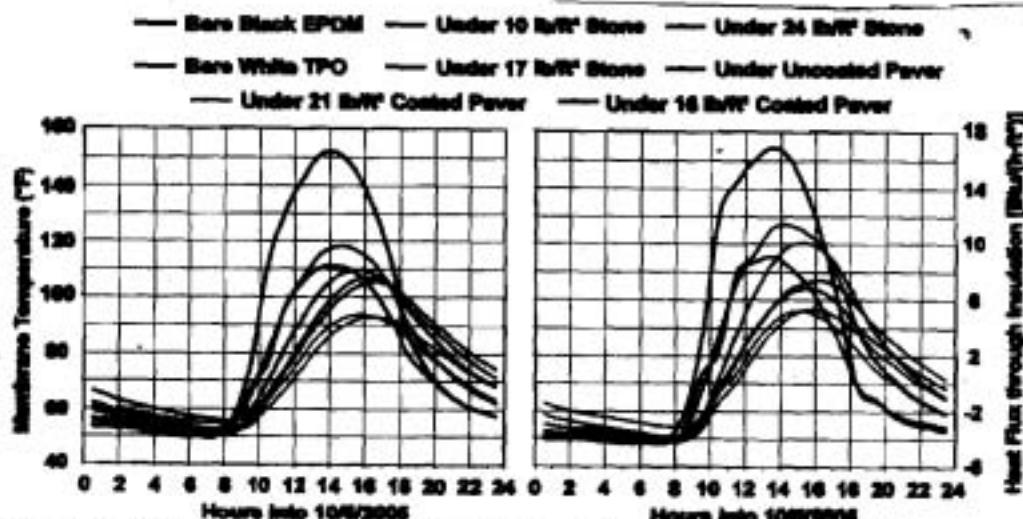


Figure 9. Membrane temperatures and roof heat fluxes nineteen months into experimental program.

In Figure 9 the blue line represents the results from the white TPO, while the green line represents the 17 lb/ft²-ballasted system. The graph on the left shows a plot of membrane temperature vs. time for October 5, 2005, nineteen months after the test was initiated. The 17lb/ft² ballast loading has a slightly lower peak temperature than the white membrane.

The graph on the right shows a plot of heat flux vs. time for this same date. The white membrane has a slightly lower peak heat flux than the 17 lb/ft² ballasted system, however the ballasted system delays the peak heat flux by an additional 2-hours.

2. Seventeen lb/ft²-ballasted roofs are as effective as cool roofs in reducing the total energy load in the second year after installation (see attached chart)

Quicktime™ and a
TIFF (LZW) decompressor
are needed to see this picture.

This Chart provides a summary of the total energy use associated with the various roof systems that were evaluated and combines both heating and cooling loads.

This information demonstrates that ballasted roofs, with a minimum ballast load of 17 lb/ft² provide equivalent performance to cool roofing systems.

Best regards,



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