



June 11, 2007

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California Energy Commission
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I was a member of last year's CEC ad hoc committee formed to create better understanding of Title 24, Part 6 – 2004 revisions. An area that was not clear-cut was how a Green Roof (a vegetated roof) would be treated vs the Cool Roof option. A Green Roof does not lend itself to Reflectance and Emittance testing. Use of a green roof required additional evaluation and therefore cost – or design professional and owner accept defaulting to black roof values.

This should be corrected in 2008. I propose that Green Roofs be included in the Prescriptive method of meeting the intent of the 2004 version.

Attached are 3 graphics. The first two are from CEC's Cool Roof Presentation developed by the ad hoc committee. The third is from a study conducted by the NRC Research in Ottawa Canada. Although the ambient temperatures are not the same for the different applications, it is sufficient to indicate that Vegetated Roofs deserve inclusion in the Prescriptive method.

If there are any questions I can be contacted at (323) 908-5287.

Sincerely,

A handwritten signature in black ink, appearing to read "Judy Holleran".

Judy Holleran, RRC, CDT
Southwest Manager, Building Science

How Cool is a Cool Roof? (1)

Sacramento, July 12, 2000, air temp. = 89°F

EPDM single-ply
Surface 173°F

**BUR topped
with aggregate**
159°F

**BUR topped
with capsheet**
158 °F



Courtesy Dan Varvais, Applied Polymer Systems

How Cool is a Cool Roof? (2)

Sacramento, July 12, 89°F air temp.

Cool single-ply

121°F



Cool coating over BUR

108°F



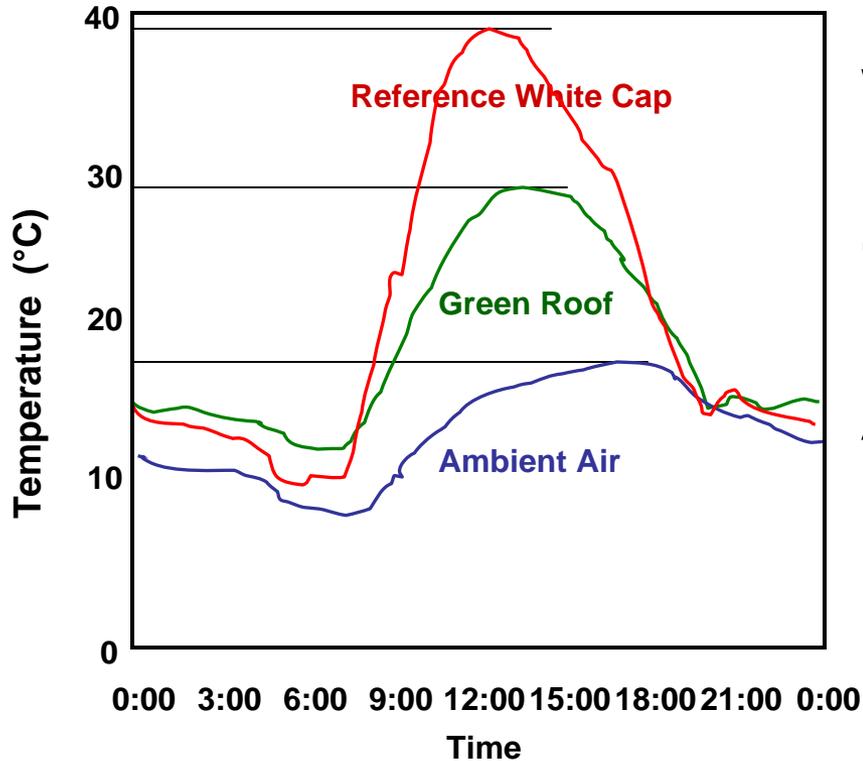
Courtesy Dan Varvais, Applied Polymer Systems

GREEN ROOF

Benefits of Green Roof Systems

Reflective Air Temperatures

At 50mm (2in.)



White Granulated Cap Temp 102° F

Green Roof Temp 82° F

Ambient Air Temperature 64° F