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March 12, 2008

Chris Gekas  
California Energy Commission  
1516 Ninth Street, MS 25  
Sacramento, CA 95814-5512

Re: Comments on the "Cool Roofing" Provisions of the Pre 15-Day Language Documents, 2008 Building Energy Efficiency Standards

Dear Mr. Gekas:

This Association represents union roofing contractors in 14 Metropolitan San Francisco Bay Area counties. We are writing today to offer our comments on some of the "cool roofing" provisions contained in the Pre 15-Day Language Documents prepared in conjunction with the soon-to-be-proposed 2008 Building Energy Efficiency Standards.

**Subchapter 6, Section 149 (b) 1 B iv, Exception #1**

A number of speakers at the June 13, 2007 Workshop pointed out that in formulating Exception #1, the CEC severely underestimated the number of subject buildings with less than R-11 insulation. We are pleased to see that Exception #1 has now been revised to apply to roofs with at least R-7 insulation. This is a much more realistic threshold value.

**Subchapter 6, Section 149 (b) 1 B iv, Exception #2**

We are also pleased to see that Exception #2 has been revised to provide for a minimum distance of at least 8 inches from the finished roof surface to the top of the base flashing. This comports with industry standards and most roofing material manufacturers' specifications and warranty requirements. Unfortunately, while the latest version of Exception #2 is much improved, **it contains a crucial ambiguity that must be resolved before we can support this proposal.**

As it is currently configured, Exception #2 applies only if both of the following conditions are satisfied: (1) the height from the roof membrane surface to the top of the base flashing must be equal to or less than 8 inches; and (2) any mechanical equipment located on the roof must not be "disconnected and lifted as part of the roof replacement." The term "lifted" is subject to two entirely different interpretations, one of which would impose enormous – and entirely unjustified -- costs on building owners. Accordingly, Exception #2 is in dire need of clarification.

In the latest draft version of Exception #2, the word “temporarily” is struck through, so that it appears, in relevant part, as follows:

***If mechanical equipment is located on the roof and it will not be temporarily disconnected and lifted as part of the roof replacement....then additional insulation is not required.***

Because the term “temporarily” has been deleted, it appears to us that it is not the intent of the CEC to require additional insulation to be installed any time that rooftop equipment needs to be (temporarily) disconnected, **lifted** and moved out of the way so that the membrane underneath can be replaced, then returned to its original position and reconnected. Rather, the intent seems to be to require additional insulation only if the rooftop equipment (and the curbs, sleepers, rails or platforms upon which it rests) is **permanently raised** above its original position, thus “making room” for additional insulation to be cost effectively added to the roofing system.

As the CEC is well aware, **temporarily moving (lifting)** large air conditioners, swamp coolers and other rooftop mounted equipment can be expensive, but the cost pales by comparison with the expense associated with **permanently raising (lifting)** the height of the curbs, sleepers or other platforms upon which the equipment rests. Permanently raising equipment requires that associated gas and water pipes, electrical conduits and connections, ductwork and other accessories also be raised. Reconfiguring associated utilities typically costs five to ten times more than just raising (lifting) the equipment. Add in the expense of necessary building permits and the total cost of permanently raising (lifting) rooftop mounted equipment can reach astronomical proportions.

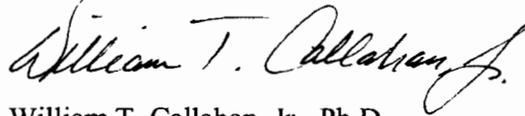
It seems reasonably clear that the CEC term “lifted” means the same thing as our term “permanently raised.” We have the benefit of having participated in the regulatory process, however. We know that the word “temporarily” was deleted in order to convey that additional insulation is only required when the elevation of rooftop equipment is permanently altered. Unfortunately, once the new Energy Code is adopted, most architects, designers, roofing contractors, building owners and building officials will not have the benefit of this knowledge. They will see the term “lifted” and not know what it actually means. Some will take it to mean “permanently raised”, but others will not. Such confusion is intolerable. Accordingly, we respectfully suggest that Exception #2 be amended as follows in order to more clearly reflect the CEC’s actual intent:

***If mechanical equipment is located on the roof and it the curb, sleeper, platform or other structure upon which it rests will not be disconnected and lifted raised as part of the roof replacement... then additional insulation is not required.***

The language recommended above resolves the ambiguity in the current proposal by focusing attention not on what happens to the equipment (a crane moved it, but has it been "lifting" within the meaning of the Exception?), but rather on what happens to the structure(s) that support the equipment. If the curb, sleeper or platform upon which the equipment rests is not altered, then Exception #2 may apply. If the curb, sleeper or platform is raised, then Exception #2 does not apply. This approach is simple, direct and unambiguous. We urge you to adopt it.

If you have any questions, please feel contact me by telephone at (510) 635-8800, extension 344, or by e-mail at [wcallahan@pacbell.net](mailto:wcallahan@pacbell.net). In the meantime, thank you for the opportunity to submit these comments and suggestions on the Pre 15-Day Language Documents.

Sincerely,

A handwritten signature in black ink that reads "William T. Callahan, Jr." The signature is written in a cursive style with a large, sweeping initial 'W'.

William T. Callahan, Jr., Ph.D.  
Executive Director