

MEMORANDUM

RE: 2008 Title-24 Standards Changes – Effective January 1st 2010

As you probably already know, the Title-24 Standards are getting ready to undergo another set of changes and will go into effect January 1st 2010. There are many changes to the standards that you need to be aware of and therefore we are including a copy of the “Summary of Changes for California 2008 Building Energy Efficiency Standards” as released from the California Energy Commission (“CEC”) with this letter. The intent of this letter is to supplement, clarify, and pinpoint the pertinent information contained in the CEC’s summary for our clients.

- Minimum building efficiency increases approximately 15%
 This means that what was being built as 15% above code (often referred to as “Energy Star” or “Tier I”) will now only be meeting minimum efficiency requirements. This is highly dependent on the climate zone and building design, as we are seeing even higher swings up to 20% on some projects. Many of the changes listed in the CEC’s summary are related to this.
- Mechanical ventilation now required (ASHRAE Standard 62.2)
 California has adopted the 62.2 standards in whole, with one exception. The California standards will not allow opening windows to meet the ventilation requirements. Proper ventilation will need to be achieved through either an exhaust fan, ERVs, HRVs or other acceptable methods. Whichever option is used, the minimum cfm requirements of the building must be met with one (1) fan, not a combination of several fans.
 - Note: The previous standards prohibited us from taking credit for an extremely tight house without requiring mechanical ventilation. Now that it is required by the standards, we can now take advantage of the fact that many builders are sealing the houses tighter than they have been in the past. This has shown an increase to the compliance margin of 4%, on average, to those builders who seal their buildings below a 2.0 Specific Leakage Area.
- Maximum window ratings have been lowered
 The use of the standard Low E window will now have less of an effect. Instead of being compared to a standard clear window, they are being compared to higher performing window resulting in less of a performance margin being accounted for. With the latest window technology on the market, the achievable window ratings have dropped even further, so using these windows could negate this changes effect to the compliance margin.

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- Refrigerant charge verification replaces TXV valve HERS item

The installation of a TXV valve no longer to be used as an alternative to performing a refrigerant charge verification. The typical HERS test will require the HVAC contractor to install several temperature and pressure sensors into the indoor and outdoor units. The placement of these sensors will be critical and special training will be needed. In hopes to simplify this test, the CEC has also included an option for a Charge Indicator Display (“CID”) to be installed. Currently there are no such products on the market. This is a prescriptive requirement in the majority of the climate zones. Under the performance modeling option, this test can be traded away, with a penalty of -3.5% on average.

- Note: We believe the penalty can be avoided by one of two ways. The first being to ensure the HVAC contractor is properly trained in the proper placement of the required sensors or is prepared to install a CID device. DuctTesters in more than willing to assist in this training anyway we can. The second is a proactive decision on part of DuctTesters. All of the DuctTesters field inspector staff has been properly trained and have met all US EPA certification requirements for handling refrigerant. This means that a DuctTesters field inspector can meet the requirements for the required refrigerant charge verification by simply doing the exact same test that the HVAC contractor does to ensure they have properly charged the system during installation.

- Cool Roofing products now prescriptively required

This is a requirement for the roofing product to meet a minimum 3 year aged reflectance ratings and emissivity ratings, which will depend on the slope of the roof. Being that this is a prescriptive requirement, it can be traded away for a penalty of -1 to 2%. There are several products emerging that meet these requirements in a wide array of colors, which was previously only available in lighter colored materials.

- Several manufactures may be offering a cool roof product in the same material and color that is currently being used on your project. This could be an easy way to avoid the penalty associated with trading this requirement away in the performance method.

- Tankless Water Heaters are de-rated

The CEC has found that tankless water heaters are operating less efficient than the manufactures had previously believed. They are requiring that the building modeling software de-rate the manufactures stated rating by 8%. This will have quite an impact on the credit previously associated with using a tankless water heater. The de-rating has shown about a 3% loss in the achievable credit in our testing. This brings the average credit given for a tankless water heater down to a 7% increase on average, which is still a substantial credit when compared to others. Moving up to a higher performing unit, often found in condensing units, will negate this loss in achievable credit.

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As mentioned above, there are several changes that occur in the new standards and this letter is intended to be a summary of those changes that are pertinent to our clients and the way they currently construct their buildings.

We have been in contact with several of the local building departments and have found that due to the initial delay in the effective date of the standards, many of the cities have had time to prepare for the standards change and will be enforcing it right away. We have notified them that the software and certain other factors are still not clear at the CEC level, and we will be keeping them abreast of any changes that come up. We do not anticipate any further delay in the effective date, but we are making the cities aware that they will have issues trying to enforce the new standards should the software still be unavailable by the effective date. Here at DuctTesters we have been working with a beta version of the software for some time and may have supplied you with a look at how the new standards will affect your projects compliance options. In this case, once the software is approved it should be just a matter of verifying that everything is still meeting the projects efficiency goals and printing the final reports.

Should you find any issues arising with your projects, please feel free to contact us and make us aware of the situation as we would be more than happy to assist in rectifying the situation in any way we can.

We would like to thank you for your continued business and please, if you have any questions feel free to contact us.

Sincerely,

Dave Hegarty
President & CEO

Jeremiah Ellis
Certified Energy Analyst