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From: APP-TECH Inc. [info@app-techinc.com]
Sent: Monday, February 03, 2014 5:04 PM
To: Brehler, Pippin@Energy
Cc: Bohan, Drew@Energy; Ashuckian, Dave@Energy; Geiszler, Eurlyne@Energy; Baugh, Heather@CNRA; Martinez, Consuelo@Energy
Subject: Appliance Efficiency Regulations
Attachments: APPCEC2Feb14Title20.pdf

Hi Pippin,

I formalized my thoughts from our last phone conversation, as you asked. I believe that these three items need to be implemented as soon as possible. Please have them added to Docket # 13-AAER-1. They should be considered a "Clarification To Existing Regulations".

Pat Splitt – CEA

APP-TECH Inc.

California Energy Commission

DOCKETED

13-AAER-01

TN 72509

FEB 04 2014

Re: Docket # 13-AAER-1, Proposed Amendments to Appliance Efficiency Regulations

Problem 1: There does not seem to be any written procedure for adding new types of equipment to the Appliance Standards and/or Appliance Directory.

Proposed Solution: Rather than require a Rulemaking to amend the Appliance Regulations each time a new type of equipment is added, authorize the **Executive Director** to add new types of equipment as needed to keep the regulations and appliance data bases up to date.

Comment: It appears that there was a policy decision made (I think) at the time of the 2002 revisions to the Appliance Regulations, to include the certifications required in Title-24 Section 112 in the primary Appliance Database. This facilitated locating required appliance data, since everything would be located in one place. This policy should be continued for all additions of equipment to section 110.2 in the 2013 Regulations (including Air-to-Water heat pumps).

Problem 2: There are numerous requirements in the Appliance Regulations specifically for equipment that can perform both space heating and domestic water heating functions. These requirements (also apparently introduced in 2002) have been universally ignored and should all be deleted. They contradict current DOE and ASHRAE procedures that require these types of equipment to only be tested for the units' primary application. For instance, a boiler that can also provide DHW along with space heating is only rated as a boiler (space heater not water heater). Some of these current requirements are mutually exclusive. In one place combined space and water heating equipment is required to be tested and rated as both a space heater **AND** a water heater. In another place this same equipment is required to be tested **ONLY** as a water heater.

Proposed Solution: Delete them all. No one pays any attention to them anyway. Just require that only the units' **primary function** efficiency needs to be certified to the Commission.

Comment: Title-24 2013 section 110.2 (a) 3. also needs to be deleted.

Problem 3: No one at the CEC seems to have any knowledge of residential hydronic space heating and domestic water heating systems and applications.

Proposed Solution: I am also requesting that a **Workshop** on residential domestic water heating and hydronic space heating equipment compliance be held as soon as possible. The primary goal would be to get public input on how the residential performance software should model various hydronic systems, including combined hydronic systems. A secondary goal will be to identify changes to the Appliance Regulations required to be compatible with the new performance method. One example would be the need to include Heat Pump output & efficiency at 17 degrees as well as 47 degrees in the Appliance Directory listings. Another outcome from this workshop might be the identification of hydronic equipment that the CEC is not officially aware of that is being installed in residential buildings.

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