

August 23, 2013

California Energy Commission (CEC)  
Dockets Office, MS-4  
1516 Ninth Street  
Sacramento, CA 95814-5512

Re: AHRI Comments on Heat Pump Pool Heaters – Docket No. **12-AAER-2F**

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Dear CEC Staff:

The Air-Conditioning, Heating and Refrigeration Institute (AHRI) is the trade association representing manufacturers of heating, cooling, water heating, and commercial refrigeration equipment. Over 300 members strong, AHRI is an internationally recognized advocate for the industry, and develops standards for and certifies the performance of many of the products manufactured by our members. In North America, the annual output of the HVACR industry is worth more than \$20 billion. In the United States alone, our members employ approximately 130,000 people, and support some 800,000 dealers, contractors, and technicians.

We are submitting these comments in response to the CEC's Order Instituting Rulemaking (OIR) on standards, test procedures, labeling requirements, and other efficiency measures for a variety of appliances within CEC's Appliance Efficiency Program. Although heat pump pool heaters have not been included within the list of the products that are being evaluated in CEC's "Invitation to Participate" process for the 2013 appliance efficiency pre-rulemaking, we would like CEC to consider amending some of its heat pump pool heater provisions in the existing Appliance Efficiency Regulations (Title 20). Currently, the provisions for heat pump pool heaters in Title 20 are inconsistent with the provisions in nationally recognized building energy standards and codes such as the American Society of Heating and Air-Conditioning Engineers (ASHRAE) 90.1 and the International Energy Conservation Code (IECC). CEC should harmonize the test procedure and minimum efficiency requirements in Title 20 for heat pump pool heaters with the requirements specified in ASHRAE Standard 90.1 and the IECC.

Table G within Section 1604(g) of Title 20 specifies ANSI/ASHRAE 146-1998 as the test method for heat pump pool heaters. In comparison, AHRI Standard 1160 is the test procedure that is referenced in ASHRAE Standard 90.1 and the IECC. The AHRI Standard 1160 has been approved by the American National Standards Institute (ANSI) and establishes testing and rating requirements for heat pump pool heaters. The standard also references ANSI/ASHRAE 146-2006 as the method of test, which is a more recent method of test than the one currently referenced in Title 20.

Section 1605.3(g)(3) states that for heat pump pool heaters manufactured on or after March 1, 2003, the average of the coefficient of performance (COP) at Standard Temperature Rating and the coefficient of performance (COP) at Low Temperature Rating shall be not less than 3.5. Both ASHRAE Standard 90.1 (Table 7.8) and the IECC (Table C404.2) specify a more stringent minimum performance requirement of 4.0 COP for heat pump pool heaters at the low ambient air temperature of 50°F db and 44.3°F wb, and an entering water temperature of 80.0°F.

One of the goals of CEC's 2012 OIR is to reduce excessive energy and water consumption from appliances in the State of California; this goal can be achieved to an extent through the harmonization of Title 20 requirements for heat pump pool heaters with the provisions outlined in ASHRAE Standard 90.1 and the IECC. The harmonization process offers two benefits: a). an updated reference to the ASHRAE 146 method of test; and b). a more stringent COP requirement that leads to energy savings. Additionally, harmonization of standards would make it easier for heat pump pool heater manufacturers to plan their production since manufacturers would be subject to only one set of test procedure and energy efficiency requirements across the nation.

AHRI appreciates the opportunity to provide these comments. If you have any questions regarding this submission, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'AR' with a stylized flourish extending from the bottom right.

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