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Comment Received From: Air-Conditioning, Heating, & Refrigeration Institute

Submitted On: 5/14/2018

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Amendments to Title 20 Appliance Efficiency Regulations Rulemaking

Additional submitted attachment is included below.

May 14, 2017

California Energy Commission
Docket Unit, MS-4
1516 Ninth Street
Sacramento, California 95814-5512

Re: AHRI Comments – Amendments to Title 20 Appliance Efficiency Regulations
Rulemaking [*Docket No. 18-AAER-10*]

Dear CEC Staff:

These comments are submitted in response to the California Energy Commission's (CEC) proposed changes to the Appliance Efficiency Regulations contained in the California Code of Regulations (CCR), Title 20, Sections 1601 to 1609 as published in the Express Terms (45-Day Language) on March 30, 2018.

AHRI is the trade association representing manufacturers of heating, cooling, water heating, and commercial refrigeration equipment. More than 300 members strong, AHRI is an 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 and water heating industry is worth more than \$44 billion. In the United States alone, the HVACR and water heating industry supports 1.3 million jobs and \$256 billion in economic activity annually.

We appreciate CEC's efforts to engage industry early on this rulemaking and for staff's thoroughness in making updates. AHRI has several comments, some of which were communicated during the April 24, 2018, stakeholder meeting. We would welcome any additional conversations on any of our comments.

Definitions

There are several instances in the definitions section where CEC is proposing multiple meanings for the same words or phrases. For example, "Electric instantaneous water heater" is defined as both a "federally regulated *consumer* product means a water heater that uses electricity as the energy source, has a nameplate input rating of 12 kW or less, and contains no more than one gallon of water per 4,000 Btu per hour of input;" and a "federally regulated *commercial and industrial* equipment means a water heater that uses electricity as the energy source, and has a rated input both greater than 12 kW

and not less than 4,000 Btu/h per gallon of stored water.” Other than the market distinction, each definition has different requirements. Other examples include “Electric storage water heater,” “Gas-fired instantaneous water heater,” “Gas-fired storage water heater,” “Oil-fired instantaneous water heater,” “Oil-fired storage water heater,” This situation is confusing for those trying to comply with Title 20.

AHRI recommends that CEC review the definitions section and propose clear definitions for distinct words and phrases. This would be most easily accomplished by adding “, residential” and “, commercial and industrial” to the end of each term to make each unique for the situations described above. For the example, above, “Electric instantaneous water heater, consumer” and “Electric instantaneous water heater, commercial and industrial.”

AHRI also recommends maintaining definitions for products in a single location and considering if maintaining references to the CFR is necessary. General definitions of water heaters, such as “Storage water heater,” is in fact a fact a sub-category due to the CFR reference, in this case, “10 C.F.R. § 431,” which in fact only applies to commercial or industrial applications. Current federal definitions might change rendering Title 20 unintentionally inaccurate and causing complex regulatory problems in California. Rather than also including “Storage water heater” or “Water heater” or “Instantaneous water heater” as separate definitions, CEC should define terms once, completely, in a single location.

AHRI recommends the following change (highlighted yellow) for, “Flow-activated instantaneous water heater” means an instantaneous water heater or hot water supply boiler that activates the burner or heating element only if heated water is drawn from the unit.” It is incorrect to define these products by heated water at the exit, as at first call, the water at the exit would be hot since water flow and temperature are coordinated.

To accurately reflect the correct term for this federally-defined product type, AHRI the following change (highlighted yellow) for, “Residential-duty commercial water heater” means any gas-fired storage, oil-fired storage, or electric instantaneous commercial water heater that meets the following conditions...”

Table F-3, Standards for Water Heaters Regulated Under 42 U.S.C. 6295(e)

AHRI is concerned with proposed Table F-3 which, as written, lists an energy conservation standard for, “water heaters not covered under 10 C.F.R. § 430.32, including but not limited to storage water heaters > 1 gal and < 20 gal (mini-tank water heaters) and booster water heaters, that would become effective on the date of a federal test procedure that converts Uniform Energy Factor (UEF) to Energy Factor for these products.” However, if the US Department of Energy was to establish minimum UEF for these products, there would be a federal rulemaking on the topic and the backstop CEC is recommending would not necessarily be the outcome of such a rulemaking. Also, the note references that the standard effective date would be on the date that the federal test

procedure is applicable, but the current federal test procedure covers these products, and yields a UEF, but no conversion to Energy Factor. As the situation currently stands, there are no federal UEF standards for these products, no justification that the minimum Energy Factors listed for these products are appropriate and CEC including state standards for these products violates EPCA's preemptions provisions. 42 U.S.C. 6297(c). AHRI recommends revising Note 1 in proposed Table F-3 as follows:

~~¹ Applies to water heaters not covered under 10 C.F.R. § 430.32, including but not limited to storage water heaters > 1 gal and < 20 gal (mini-tank water heaters) and booster water heaters. These standards will take effect of the effective date of a federal test procedure that converts Uniform Energy Factor (UEF) to Energy Factor for these products.~~

Lastly, there appears to be a typo in the Minimum Energy Factor for Electric Water Heaters and a zero was inadvertently omitted. The correct equation for these products is: is $0.95 - (0.00132 \times V_r)$.

Section 1603. (1) Approved Industry Certification Programs

While it is not necessarily a new definition, and updates would not be required to address the stated scope of this rulemaking, we would like to point out that the definition for Approved Industry Certification Programs in Title 20 is not suited to regulation of components, such as fans, embedded into other products. The metric being discussed for fans is an operating map, and therefore some points of operation would meet the efficiency standard and some points would not. Also, depending on the scope of the fans regulation, some California-regulated fans could be installed in either California or federally regulated products. This has the potential to create confusion and conflict with subsections (b), "clearly and distinctly indicate which appliances meet the applicable federal standard but do not meet an applicable California standard, which shall be identified;" and (c) "where there is no federal standard, clearly and distinctly indicate which appliances do not meet an applicable California standard which shall be identified." AHRI recommends careful review of this section when considering standards for components of state and federally regulated products, and for standards which are regulated on an operating map rather than a single point.

Section 1604.(c)(3) Test Methods for Central Air Conditioners

The 2015 federal test procedure eliminated the "Highest Sales Volume Tested Combination" (HSVTC) requirement for residential central air conditioners and heat pumps and instead moved to "tested combinations." AHRI recommends CEC revise this section to align with requirements of 10 C.F.R. § 429.16.

Section 1605.1 Table A-12 Standards for Walk-in Cooler and Walk-in

CEC lists compliance date for of June 5, 2017 in Table A-12; however, on February 1, 2016 DOE issued enforcement guidance (Exhibit-1) for of the four energy conservation standards applicable to dedicated condensing refrigeration systems operating at medium temperatures that are promulgated at 10 C.F.R. § 431.306(e), provided that the violations are related to the distribution in commerce of WICF refrigeration system components manufactured prior to January 1, 2020. AHRI recommends CEC acknowledge this enforcement guidance in Title 20 by updating the date in Table A-12 to be effective on January 1, 2020.

Section 1606.(a)(1)(F) Submittal Requirements for Split System Central Air Conditioners.

AHRI recommends making updates to this section based on feedback provided above regarding the removal of HSVTC in the current test procedure for split system air conditioners.

Likewise, in Section 1606.(a)(4)(A)c, “for all split system central air conditioners and compressor-containing units, these models were tested with the non-compressor containing unit most likely to represent the highest national sales volume for the combined equipment,” references to HSVTC should be removed as this is no longer consistent with the federal test procedure.

Conclusion

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

Sincerely,



Laura Petrillo-Groh, PE
Engineering Director, Regulatory Affairs
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Exhibits:

1. Department of Energy Enforcement Policy Statement Regarding Walk-in Cooler/Walk-in Freezer Refrigeration Systems issued on August 14, 2015 and updated on February 1, 2016

Exhibit 1

**Enforcement Policy Statement Regarding
Walk-in Cooler/Walk-in Freezer Refrigeration Systems**

Issued: August 14, 2015
Updated: February 1, 2016

In an exercise of its enforcement discretion, DOE will not seek civil penalties or injunctive relief concerning violations of the four energy conservation standards applicable to dedicated condensing refrigeration systems operating at medium temperatures that are promulgated at 10 C.F.R. § 431.306(e), provided that the violations are related to the distribution in commerce of WICF refrigeration system components manufactured prior to January 1, 2020.