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California Energy Commission
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California Energy Commission

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14-AAER-1

TN 73140

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Re: AHRI Comments – 2014 Appliance Efficiency Pre-Rulemaking (Title 20 Proposal on Air Filter Labeling) [*Docket Number 14-AAER-1*]

Dear CEC Staff:

These comments are submitted in response to the California Energy Commission (CEC) appliance efficiency pre-rulemaking proposal on air filter labeling presented during the May 6th public workshop.

AHRI is the trade association representing manufacturers of heating, cooling, water heating, and commercial refrigeration equipment. More than 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.

While AHRI understands that CEC's labeling objectives are to improve the longevity and energy efficiency performance of HVAC equipment, we are concerned with several technical aspects of the proposal. Further, we believe that any mandatory requirement to label air filters would be onerous for manufacturers and not offer any additional benefit to the consumer.

The proposed requirement would force manufacturers to produce California-specific packaging which would not only increase the cost of manufacturing, but also lead to additional challenges in managing inventory. Air filters are sold across North America, and distribution of these products is generally not split by region. A requirement to provide specific information on the filter for a single state would be cumbersome for manufacturers. Additionally, the process would be rendered inefficient and cause customer confusion if other states adopt a similar approach but specify labeling requirements that are different from those specified by the CEC.

In addition to the issue of the burden of a "California" label, we are concerned that the proposal to report Minimum Efficiency Reporting Values (MERV) for all air filters will confuse, not help, consumers. Title 20 acknowledges that both ASHRAE Standard 52.2, *Method of Testing*

General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size and AHRI Standard 680, *Performance Rating of Residential Air Filter Equipment* are acceptable methods for determining air filter performance for residential equipment. However, it must be understood that while the test setup is the same, the test procedures are different. Most significantly, each standard uses a different composition of loading dust to establish the filter's performance. Therefore, each standard produces unique performance descriptors for air filters and air filter equipment. The loading dust specified in the ASHRAE 52.2 test contains conductive carbon, which may cause electrical shorting and thus compromise the effectiveness of Electronic Air Filters (EAC) and alter the MERV that would be measured by that procedure. This test method is not appropriate for EACs and mandating the reporting of the Minimum Efficiency Reporting Values (MERV) metric would preclude the sale of these products in California. . Also, it should be recognized that the dust-loading procedure in ASHRAE 52.2 may also affect the efficiency of electrostatically charged filters.

The proposal to test residential air filters in accordance with AHRI Standard 680 and convert the results to obtain the MERV would not provide a value that is comparable to products with a MERV obtained by testing to ASHRAE 52.2. Particle Efficiency Sizes (PES) obtained using the two tests are different. AHRI Standard 680 is an average value and MERV is a minimum value. Calling both metrics "MERV" would confuse the market and further mislead consumers about the applicability of MERV. MERV ratings must be reported at the tested airflow rate to provide meaning. ASHRAE 52.2 is a method of test, not a performance rating standard where standard rating conditions are specified to provide a meaningful basis on which to compare products. While the CEC may see the AHRI 680 published ratings as being complex, they do not mislead consumers about the MERV, particle size efficiency and dust holding capacity ratings of filters.

The proposal to certify air filter models in the Appliance Efficiency Database has several flaws, several of which have been raised during the previous discussion of labeling issues. To summarize the issues as related to a database:

1. Using the testing procedure in AHRI 680 to obtain a minimum efficiency reporting value (MERV) as specified in ASHRAE 52.2 does not yield comparable results. The procedures are different.
2. The Particle Size Efficiency and Dust Holding Capacity values obtained by testing to AHRI 680 are not comparable to those obtained by testing to ASHRAE 52.2. The composition of the loading dust in the two standards is different and the calculation of PES is different. These metrics should not be placed in a directory side-by-side.
3. Electronic Air Filters cannot be tested to ASHRAE 52.2 so no MERV rating should be applied to these products.

Instead of requiring a label that specifies information in accordance with §150.0(m)12B and §150.0(m)12C of the 2013 Building Energy Efficiency Standards (California Code of Regulations, Title 24, Parts 1 and 6), CEC should allow the manufacturer to disclose the efficiency and pressure drop ratings on the manufacturer's website. Requirements consistent

with Title 24 (requiring the efficiency to be equal to or greater than MERV 6 (ASHRAE Standard 52.2), or a PSE rating equal to or greater than 50% in 3.0–10 µm range (AHRI Standard 680)) would allow replacement filters to have the same information available as for new construction. Such an approach will provide a better value to the consumer because the data on the website would be legitimate. It would also be more legible as compared to placing the same information in a smaller font on an air filter due to space limitations. The website approach would meet CEC's disclosure objectives without being unduly burdensome for manufacturers and misleading to consumers.

Should CEC continue to ignore AHRI's concerns regarding air filter labels and a database, the only proposal that would not mislead the market would be to require that all air filters be tested in accordance with AHRI 680. We cannot support the identification of this metric as a MERV rating. It should be designated by some other name.

It is worth noting that the scope of AHRI Standard 680, *Performance Rating of Residential Air Filter Equipment* is limited to residential equipment and no mention has been made of the counterpart standard, AHRI Standard 850, *Performance Rating of Commercial and Industrial Air Filter Equipment*. The distribution of products is significantly different for nonresidential equipment and there would be little value requiring the labeling of air filters in commercial applications.

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

Sincerely,



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