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NRDC Comments on CEC Staff Analysis of HVAC Air Filter Labeling 2015 Appliance Efficiency Pre-Rulemaking

Docket Number 15-AAER-1

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Submitted by:

Meg Waltner, Natural Resources Defense Council

On behalf of the Natural Resources Defense Council and our more than 250,000 members and online activists in California, we respectfully submit these comments on the CEC's Staff Analysis for HVAC Air Filter labeling.

NRDC generally strongly supports the CEC's proposal to require air filters to be labeled with their efficiency and initial resistance. However, we argue that the CEC has missed an opportunity to align the air filter market under a single efficiency rating: MERV. We recommend that the CEC require the use of the MERV rating system in both Title 20 and Title 24. Given that the 2016 Title 24 language is still being finalized, there is still an opportunity to align the air filter market under a single efficiency rating system.

Air filter labeling represents an opportunity for energy savings. Air filters represent a component of residential heating and cooling systems and their labeling represents an opportunity to reduce energy use, by providing better information to designers, consumers, contractors, and policy makers. According to data from the 2009 Residential Energy Consumption Survey (RECS), heating and cooling energy use accounts for approximately 30 percent of residential energy costs in California.¹ A portion of this energy cost can be attributed to airflow resistance in the heating and cooling distribution system, which results in unnecessary energy waste. Air filters contribute to this airflow resistance, causing fans to work harder and increasing the energy use of the system.

Title 24 requires installed air filters to be labeled and to meet certain efficiency requirements. The Title 24 2013 Building Efficiency Standards require that mechanical systems supplying air through more than 10 feet of ductwork be fitted with an air filter device.² They also require that this air filter device be labeled with the applicable design airflow rate and the

¹ www.eia.gov/consumption/residential/data/2009/index.cfm?view=consumption#end-use

² The Title 24 2013 Building Efficiency Standards define air filter device or air filter equipment as, "air-cleaning equipment used for removing particulate matter from the air."

maximum clean-filter pressure drop allowed by the design, so that is visible by a person replacing the air filter media.³ The Title 24 2013 Building Efficiency Standards also require that installed air filters meet certain efficiency standards and pressure drop specifications, and that the installed air filter be labeled by the manufacturer to conform with these requirements. However, this requirement falls on the contractor/installer and does not require an air filter manufacturer to label their product. Requiring air filters to be labeled with both efficiency and pressure drop ratings will enable contractors to meet these requirements while providing better data to consumers, design professionals, and policy makers.

CEC's proposal to require air filter labeling will facilitate Title 24 compliance and energy savings. NRDC supports the proposed requirement to require air filters to be labeled with their efficiency and initial resistance. The proposal would require that air filters be labeled with either MERV or particle size efficiency rating and their initial resistance at 400, 800, 1200, 1600 and 2000 (or max airflow) cfm. This requirement will facilitate compliance with the Title 24 building code, which requires that installed air filters be labeled and meet minimum efficiency requirements. It will also provide better information for consumers when they replace these filters and better data on air filter efficiency for design professionals and policy makers that will enable future energy savings.

CEC should require the use of one rating system, MERV, to avoid market confusion. While we generally support the proposed labeling requirement, we think that the CEC has missed an opportunity to align air filters under a single labeling system. Allowing both the use of the MERV and particle size efficiency rating may confuse consumers, contractors, and design professionals. It would be best to utilize just one rating system to avoid this market confusion. Given the wide-spread use of the MERV system, we recommend that the CEC require the use of the MERV rating both in Title 20 and 24.⁴ Manufacturers could continue to test using either ASHRAE 52.2 or AHRI 680⁵ by using a crosswalk with AHRI 680 to convert the test results into MERV ratings.

We appreciate the opportunity to submit these comments and welcome further discussion on any of these comments.

Sincerely,



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³ The Title 24 2013 Building Efficiency Standards define “air filter media” as “the part of the air filter equipment, which is the actual particulate removing agent.”

⁴ Currently Title 24 allows both systems, which is the CEC’s rationale for allowing either on the label.

⁵ It is important to allow the use of both test procedures as only 680 can be used to test electrostatic filters. The crosswalk between the two test procedures should be simple to develop.