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Docket Number:	17-AAER-02
Project Title:	Appliance Efficiency Standards Emergency Rulemaking for Residential Air Filters
TN #:	216240
Document Title:	[Proposed] Finding of Emergency Pursuant to Government Code Section 11346.1 for Residential Air Filters
Description:	For Proposed Regulations to Amend the Appliance Efficiency Regulations for Residential Air Filters of the California Energy Commission
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Organization:	California Energy Commission
Submitter Role:	Commission Staff
Submission Date:	2/24/2017 3:07:25 PM
Docketed Date:	2/24/2017

**[PROPOSED] FINDING OF EMERGENCY
PURSUANT TO GOVERNMENT CODE SECTION 11346.1
FOR
PROPOSED REGULATIONS TO AMEND THE APPLIANCE EFFICIENCY
REGULATIONS FOR RESIDENTIAL AIR FILTERS
OF THE
CALIFORNIA ENERGY COMMISSION**

Pursuant to Government Code Section 11346.1, subdivision (b)(1), a state agency may adopt an emergency regulation if it makes a finding that the adoption of the regulation is necessary to address an emergency. Government Code Section 11346.1, subdivision (b)(2), states that any finding of emergency shall include a written statement that contains the information required by paragraphs (2) to (6), inclusive of subsection (a) of Section 11346.5, and a description of the specific facts demonstrating the existence of an emergency and the need for immediate action.

The California Energy Commission (Commission) finds that the amendments proposed herein are necessary to address a situation that calls for immediate action to avoid serious harm to the general welfare of the public. Specifically, the Commission finds that delaying the date by when residential air filters for use in forced-air heating or forced-air cooling equipment that are sold or offered for sale in the State of California must comply with the mandatory testing, certification, and marking requirements in the California Code of Regulations Title 20, sections 1606, Table X and 1607(d)(12) (appliance efficiency regulations), from July 1, 2016, to April 1, 2019, is necessary to avoid hardship to the public and the stakeholders affected by these regulations. These amendments will provide the Commission with sufficient time to study, address, and resolve concerns with the existing regulations, and to adopt appropriate amended regulations to overcome barriers to compliance without causing serious harm to the general welfare of the public.

SPECIFIC FACTS DEMONSTRATING THE EXISTENCE OF AN EMERGENCY AND NEED FOR IMMEDIATE ACTION (Government Code Section 11346.1(b)(2))

“[Air f]ilters are used in residential HVAC systems to protect equipment and to remove particulate pollutants that can pose a serious health hazard.”¹ When a heating, ventilation, and air conditioning (HVAC) system is equipped with a properly rated air filter, the system will operate more efficiently, saving energy and money for the consumer, while continuing to help maintain acceptable indoor air quality.

On May 13, 2015, the Commission adopted appliance efficiency regulations for heating ventilation and air conditioning (HVAC) air filters, deep dimming fluorescent ballasts, heat pump water chilling

¹ HVAC Filtration, Residential Building Systems, Lawrence Berkeley National Lab, available at <https://homes.lbl.gov/projects/hvac-filtration>.

packages, and federal updates.² On and after July 1, 2016, residential air filters, also referred to as HVAC air filters, sold or offered for sale in the State of California were subject to mandatory testing, certification, and marking requirements.

In September 2016, industry stakeholders notified the Commission of difficulty marking and certifying their residential air filters in compliance with the appliance efficiency regulations. Manufacturers were seeking additional information on three specific issues: (1) direction on how to identify and select which of their residential air filters were required to be tested pursuant to the requirement to test a small, medium, and large air filter; (2) clarification on how to apply the test results from the small, medium, and large air filters to the rest of the manufacturer's air filters in the same product family; and (3) guidance as to why manufacturers' attempts to complete the required product certification to the Commission's database were being returned by the database as invalid. Through discussions with industry stakeholders, the Commission recently learned that the existing regulations are too open-ended, resulting in uncertain selection of products by manufacturers for testing, inconsistent application of test results to a manufacturer's similar products, and an inability to complete the required certification to the Commission's database. Given the insufficient specificity in the existing regulations, the Commission believes that manufacturers of residential air filters face significant barriers to compliance.

The Commission is concerned that the existing regulations will harm the public and stakeholders affected by these regulations. Under the existing regulations, manufacturers are forced to either continue to supply the California market with non-compliant residential air filters or to remove all residential air filters manufactured on or after July 1, 2016, from the California market. If manufacturers continue to supply non-compliant residential air filters to the California market, they are subject to administrative penalty through an enforcement action by the Commission. Air filters are a critical and necessary component of residential HVAC systems, for protecting equipment and for removing particulate pollutants to help maintain acceptable indoor air quality. If manufacturers remove all residential air-filters manufactured on or after July 1, 2016, from the California market, there is a near certainty of an insufficient supply of residential air filters to meet the needs of the public for replacement residential air filters. Consequently, the Commission finds that an emergency exists because manufacturers will incur significant administrative penalties through an enforcement action if they continue to supply the California market with non-complaint residential air filters or will cause shortage of a product that is necessary to protect HVAC equipment and to help maintain the indoor air quality in homes in California.

To avoid these outcomes, the Commission proposes to delay the date by when residential air filters for use in forced-air heating or forced air-cooling equipment that are sold or offered for sale in the State of California must comply with the mandatory testing, certification, and marking requirements in the California Code of Regulations Title 20, sections 1606, Table X and 1607(d)(12), from July 1, 2016, to April 1, 2019. Delaying the compliance date of the mandatory

² Commission resolution adopting initial study, negative declaration, and amendments to the appliance efficiency regulations available at http://docketpublic.energy.ca.gov/PublicDocuments/15-AAER-01/TN204641_20150518T103110_Resolution_Adopting_Initial_Study_Negative_Declaration_and_Amen.pdf.

requirements for residential air filters is necessary to avoid hardship to the public and the stakeholders affected by these regulations. This will provide the Commission with sufficient time to study, address, and resolve the concerns with the existing regulations, and to adopt appropriate amended regulations to overcome barriers to compliance without causing serious harm to the general welfare of the public.

INSUFFICIENT TIME FOR NON-EMERGENCY RULEMAKING (Government Code Section 11346.1 (b)(2))

The Commission did not learn about the barriers to compliance with the mandatory testing, certification, and marking requirements for residential air filters with sufficient time to amend the compliance date in the California Code of Regulations Title 20, sections 1606, Table X and 1607(d)(12) through non-emergency rulemaking before July 1, 2016, when these mandatory requirements went into effect.

The Commission did not realize the extent of the barriers to compliance with the existing regulations until after the mandatory requirement went into effect. In fact, in September of 2016, two months after the compliance date of the existing regulations, industry stakeholders notified the Commission of difficulty marking and certifying their residential air filters in compliance with the appliance efficiency regulations. Between September 2016 and January 2017, Commission staff have worked with industry stakeholders in an attempt to provide clarification of the marking and certification requirements. The Commission has recently learned that the existing regulations provide too much latitude to manufacturers with respect to testing and marking and that has given rise to significant concern about industry's ability to comply with the existing language adopted on May 13, 2015.

The latitude given in the regulations was meant to reduce manufacturers' testing burden and to provide the manufacturers flexibility for application of the testing results to similar products for certification purposes. As noted above, through discussion with industry stakeholders, the Commission has recently learned that the latitude given in the regulations was too open-ended, resulting in uncertain selection of products by manufacturers for testing, inconsistent application of test results to a manufacturer's similar products, and an inability to complete the required certification to the Commission's database. The latitude intended to assist manufacturers in meeting the requirements in the appliance efficiency regulations has instead resulted in an insufficient specificity of the requirements themselves. Because of this, staff is unable to provide clarification or guidance within the context of the current regulations without inadvertently resulting in an underground regulation.

If the Commission were to undertake a non-emergency rulemaking in order to study, address, and resolve the concerns with the existing residential air filter regulations, and to adopt appropriate amended regulations to overcome barriers to compliance, the Commission would not be able to complete the non-emergency rulemaking on a timeframe that avoids hardship to the public and the stakeholders affected by these regulations. During the non-emergency rulemaking, manufacturers would continue to be subject to administrative penalty if they were to supply non-compliant

residential air filters to the California market. Because it is necessary for the general welfare of the public to have an adequate supply of residential air filters available in California, a non-emergency rulemaking is insufficient to overcome barriers to compliance with the existing regulations.

RELIED ON DOCUMENTS (Government Code Section 11346.1 (b)(2))

[E-mail to Commission from Bryan Gerhardt, 3M dated November 16, 2016](#)

[E-mail to Commission from Nathaniel Nance, AAF Flanders dated November 18, 2016](#)

[Commission database spreadsheet report indicating unable to complete residential air filter certification attempt](#)

[Email to AHRI from Commission dated December 9, 2016](#)

[EPA 402-F-09-002 Residential Air Cleaners](#)

[Indoor Air Pollution in California](#)

[Reducing In-Home Exposure to Air Pollution](#)

AUTHORITY AND REFERENCE (Government Code Section 11346.5(a)(2))

The Commission has authority to adopt these amendments to the appliance efficiency regulations under the authority granted by Public Resources Code sections 25213, 25218(e), and 25402(a)-25402(c). The amendments to the appliance efficiency regulations implement, interpret, and make specific Public Resources Code sections 25216.5(d) and 25402(a)-25402(c).

Authority cited: Public Resources Code sections 25213, 25218(e), and 25402(a)-25402(c).

Reference: Public Resources Code sections 25216.5(d) and 25402(a)-25402(c).

SPECIFIC LANGUAGE PROPOSED (Government Code Section 11346.1(a)(2)(A))

Proposed new language appears as underline (example) and proposed deletions appear as ~~strikeout (example)~~. Existing language appears as plain text. Three dots or “...” represents the substance of the regulations that exists between the proposed language and current language.

The Commission proposes to amend Title 20, section 1606, Table X to read as follows:

**Table X
Data Submittal Requirements**

...[skipping “All Appliances” to “Packaged Terminal Air Conditioners and Packaged Terminal Heat Pumps”]

C	Air Filters <u>manufactured on or after April 1, 2019</u>	Air filter sizes tested	Small, medium, and large
		Minimum Efficiency Reporting Value (MERV)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, N/A
		Particle Size Efficiency for 0.3 to 1.0 µm particle size	
		Particle Size Efficiency for 1.0 to 3.0 µm particle size	
		Particle Size Efficiency for 3.0 to 10.0 µm particle size	
		Test Procedure used to determine air filter efficiency performance	AHRI 680-2009, or ASHRAE 52.2-2012
		Air Filter Length	
		Air Filter Width	
		Air Filter Depth	
		Air Filter Face Area	
		Face Velocity Utilized for the test procedure	Value in feet per minute or N/A
		Airflow Rate value 1	
		Airflow Rate value 2	
		Airflow Rate value 3	
		Airflow Rate value 4	
		Airflow Rate value 5-Maximum Rated Airflow Rate	
		Initial Resistance at air flow rate value 1	Test results to one-hundredths of an Inch of Water Column
		Initial Resistance at air flow rate value 2	Test results to one-hundredths of an Inch of Water Column
		Initial Resistance at air flow rate value 3	Test results to one-hundredths of an Inch of Water Column
		Initial Resistance at air flow rate value 4	Test results to one-hundredths of an Inch of Water Column
Initial Resistance at air flow rate value 5	Test results to one-hundredths of an Inch of Water Column		
Final Resistance at the point where test is terminated and results determined	Test results to one-hundredths of an Inch of Water Column		
Dust Holding Capacity at the maximum rated airflow rate as published by the manufacturer	Test results in multiples of one gram		
Airflow Rate value determined at an Initial Resistance of 0.1 Inch			

	of Water Column	
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The Commission proposes to amend Title 20, section 1607(d)(12) to read as follows:

(12) Air Filters. Each unit of air filters manufactured on or after ~~July 1, 2016~~April 1, 2019, shall be marked, permanently and legibly, on an accessible and conspicuous place on the edge of the filter itself or on the pleats, in characters of font size 12, with the information specified in either section (A) or (B) below as applicable to the air filter model:

INFORMATIVE DIGEST (Government Code Section 11346.5(a)(3)(A))

Existing law under Public Resources Code Sections 25402(a)-25402(c) requires the Commission to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy, including prescribing, by regulation, standards for minimum levels of operating efficiency and other cost-effective measures, such as labeling requirements, that are found to reduce a significant amount of energy consumption on a statewide basis, to be feasible, and to be cost-effective for California consumers and businesses.

Existing law under the California Code of Regulations, Title 20, sections 1601-1609, contains definitions, test procedures, certification and marking requirements, and efficiency standards for state- and federally regulated appliances. Appliance manufacturers are required to certify to the Commission that their products meet all applicable state and federal regulations pertaining to efficiency before their products can be included in the Commission’s database of approved appliances to be sold or offered for sale within California.

The Commission has adopted regulations for mandatory testing, certification, and marking of residential air filters for use in forced-air heating or forced-air cooling equipment, also referred to as HVAC air filters, that are sold or offered for sale in the State of California pursuant to Public Resources Code 25402(a)-25402(c), codified as the California Code of Regulations, Title 20, division 2, chapter 4, article 4, sections 1601-1607. Specifically, Section 1604(c)(4) provides the test methods for air filters and requires that manufacturers test small, medium, and large size air filters for each grade. Section 1606, Table X, requires that manufacturers certify air filters sold or offered for sale in California by reporting the following data into the Commission’s database: air filter sizes tested, minimum efficiency reporting value, test procedure used, face velocity utilized for the test procedure, and initial resistance at air flow at different values. Section 1607(d)(12) states that each unit of air filters manufactured on or after July 1, 2016 shall be marked, permanently and legible with the information specified in Sections 1607(d)(12)(A)-(B).

The proposed emergency regulations would delay the date by which residential air filters for use in forced-air heating or forced-air cooling equipment that are sold or offered for sale in the State of California must comply with the mandatory testing, certification, and marking requirements in the

California Code of Regulations Title 20, sections 1606, Table X and 1607(d)(12). The proposed change to the date is from July 1, 2016, to April 1, 2019.

COMPARABLE FEDERAL STATUTE OR REGULATION (Government Code Section 11346.5(a)(3)(B))

The Commission has determined that there are not comparable federal regulations or statutes that address the specific provisions found in Title 20, sections 1606, Table X and 1607(d)(12) of the appliance efficiency regulations.

POLICY STATEMENT OVERVIEW AND SPECIFIC BENEFITS OF THE PROPOSED AMENDMENTS (Government Code Section 11346.5(a)(3)(C))

Since 1975, California's building and appliance energy efficiency standards have saved Californians billions of dollars in reduced utility bills. The state's appliance efficiency regulations saved an estimated 22,923 gigawatt hours of electricity and 1,626 million therms of natural gas in 2012 alone, resulting in about \$5.24 billion in savings to California consumers. Appliance energy efficiency has been identified as a key to achieving the greenhouse gas emission reduction goals of Assembly Bill 32 (Núñez, Chapter 488, Statutes of 2006) (AB 32), as well as the recommendations contained in the California Air Resources Board's Climate Change Scoping Plan. Energy efficiency regulations are also identified as key components in reducing electrical energy consumption in the Commission's 2015 Integrated Energy Policy Report and the California Public Utilities Commission's 2011 update to its Energy Efficiency Strategic Plan. Senate Bill 350, the Clean Energy and Pollution Reduction Act of 2015 (de León, Chapter 547, Statutes of 2015) calls for a doubling of expected savings from energy efficiency by 2030 and identifies appliance energy efficiency standards as a strategy to help achieve these savings.

Prior to the May 13, 2015, adoption of appliance efficiency regulations by the Commission, there was a lack of labeling standards on replacement residential air filters resulting in improper filters being installed in residential HVAC equipment, wasted energy, and premature equipment damage. Residential air filters available in the market typically did not disclose pressure drop, and if they disclosed particle efficiency, they did so inconsistently as air filter manufacturers and retailers have their own rating systems for air filter particle capture. Therefore, testing, certification, and marking of residential air filters was essential to ensure consumers have proper information to select the correct replacement air filter for their installed HVAC system.

As of July 1, 2016, residential air filters for use in forced-air heating or forced-air cooling equipment sold or offered for sale in the State of California are subject to mandatory testing, certification, and marking requirements. The Commission has recently learned that the existing regulations are too open-ended, resulting in uncertain selection of products by manufacturers for testing, inconsistent application of test results to a manufacturer's similar products, and an inability to complete the required certification to the Commission's database. Given the insufficient specificity in the existing

regulations, the Commission believes that manufacturers of residential air filters face significant barriers to compliance.

Based on these facts, the Commission believes it is necessary to delay the compliance date of the existing regulations to avoid hardship to manufacturers of residential air filters and the public affected by these regulations. Failing to delay the date of compliance will cause manufacturers to incur significant administrative penalties through an enforcement action if they continue to supply the California market with non-complaint residential air filters or will cause shortage of a product that is necessary to protect HVAC equipment and to help maintain the indoor air quality in homes in California. Delaying the date of compliance will provide the Commission sufficient time to study, address, and resolve the concerns with the existing regulations, and to adopt appropriate amended regulations to overcome current barriers to compliance without causing serious harm to the general welfare of the public.

CONSISTENCY AND COMPATIBILITY WITH EXISTING STATE REGULATIONS

(Government Code Section 11346.5(a)(3)(D))

This proposed emergency rulemaking is consistent and compatible with existing state regulations. This emergency rulemaking solely proposes to delay the date by which residential air filters for use in forced-air heating or forced-air cooling equipment that are sold or offered for sale in the State of California must comply with the appliance efficiency regulations, from July 1, 2016, to April 1, 2019.

OTHER MATTERS PRESCRIBED BY STATUTE (Government Code Section 1346.5(a)(4))

None.

LOCAL MANDATE DETERMINATION (Government Code Sections 11346.5(a)(5))

The proposed emergency rulemaking would not impose an additional mandate on local agencies or school districts.

FISCAL IMPACTS (Government Code Sections 11346.5(a)(6))

Costs or Savings for State Agencies: None. This proposed emergency rulemaking would only impact the Commission, which does not anticipate any budgetary impact from delaying the compliance date of this subsection.

Costs to Any Local Agency or School District Requiring Reimbursement Pursuant to Section 17500 et seq.: None. This emergency rulemaking would only delay the date by which residential air filters for use in forced-air heating or forced-air cooling equipment must comply with the appliance efficiency regulations. There will be no costs to any local agency or school district as a result of this delay.

Other Non-Discretionary Costs or Savings on Local Agencies: None. This emergency rulemaking would only delay the date by which residential air filters for use in forced-air heating or forced-air cooling equipment must comply with the appliance efficiency regulations. There will be no costs to any local agency as a result of this delay.

The existing regulations require mandatory testing, certification, and marking of residential air filters for use in forced-air heating or forced-air cooling equipment. The costs and benefits associated with the mandatory testing, certification, and marking were fully analyzed in the original rulemaking.³ The delay in compliance date would not result in any additional costs or savings; it would merely delay when those costs or savings would occur.

Costs or Savings in Federal Funding to the State: None. Federal funding to the State is not affected by the appliance efficiency regulations.

³ Singh, Harinder, Ken Rider, 2015. Staff Analysis of HVAC Air Filters, Dimming Fluorescent Ballasts, and Heat Pump Water Chilling Packages, California Energy Commission. Publication Number: CEC-400-2015-007, pp. 20-24, available at: http://docketpublic.energy.ca.gov/PublicDocuments/15-AAER-01/TN203717_20150220T141247_Staff_Analysis_of_HVAC_Air_Filters_Dimming_Fluorescent_Ballasts.pdf.