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Comment Received From: Bryan Gerhardt
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Comments from 3M

Additional submitted attachment is included below.

Dear California Energy Commission,

There are a few suggestions on changes needed to help clarify the proposed regulation.

On Page 10 of the Proposed Regulatory Language, "Dust Holding Capacity at the maximum rated airflow rate as published by the manufacturer (grams)" is written. Dust holding is not measured at the maximum airflow rate. Dust holding is a measure of the grams of dust held in the filter within the specified testing conditions listed in the preceding data that the manufacturer has listed. It is the dust held in the filter as the filter was loaded from the "initial resistance" to the "final resistance" at the "Face velocity for the test". The Dust Hold Capacity should be used from the ASHRAE 52.2 2017 standard. Recommend changing the wording to:

Dust Holding Capacity per the testing conditions previously specified by the manufacturer (grams).

On Page 15.

Recommend adding the word "sizes" to #2.

2. Air filter "sizes" that have not been tested…

Page 15, 2b, states, "the initial resistance values of a filter that has not been tested shall be identical to the initial resistance values 1 through 5 determined for tested air filter of the same basis model". There are slight increases in the actual filter resistance for smaller sized filters due to the percent of area that the filter frame covers increases as the filter size gets smaller and inversely the filter effective area increases for larger sizes. It is recommended to change the words from "shall be identical" to "can be identical". This would allow the manufacturer to provide more accurate information on the smaller or larger filter sizes that were not tested in which the perimeter of frame changes the effective filtration area and the known filter resistance could be slightly different than the printed resistance. Manufactures that already label filters may not be using the same data across all sizes. This wording change would allow some variation to avoid having to update all printed product information prior to the regulation effective date. The costs to update product artwork, printing plates, scrap any excess raw materials not consumed by the effective date can be much larger than the Economic Impact Statement produced for the estimated cost of this regulation.

The ASHRAE 52.2 2017 Standard has Addendum B which allows for a more consumer friendly method to display the particle size efficiency (PSE). To the average consumer, listing the particle sizes of 0.3-1, 1.0-3.0, & 3.0-10µm has minimal meaning. Consumers have been educated by the media and the U.S. Environmental Protection Agency (USEPA) on PM1, PM2.5 & PM10. ASHRAE has acknowledged this disconnect with the current reporting and has an estimation for PM1, PM2.5 & PM10. These are more consumer-friendly terms and consistent with the terms used by the USEPA. It is recommended that

Addendum B be an optional method to display the filtration performance data on the filter and also be an option for registering the filter data.

Table J-2 Size Range Groups

Average Minimum PSE Designator	Corresponding Size Range Group, µm
$PM1_{52.2}$-A	0.30 to 1.0
$PM2.5_{52.2}$-A	0.30 to 3.0
$PM10_{52.2}$-A	0.30 to 10

Example table from ASHRAE 52.2-2017 Addendum

Current Table

MERV	(µm) PSE	0.30 - 1.0	1.0 - 3.0	3.0 - 10	Airflow rate (CFM) Débit d'air (pi³/min)	515	770	1025	1280	1735*	*Max Rated Airflow
13	(%)	50	85	90	Initial Resistance (IWC) Résistance initiale (IWC)	0.10	0.18	0.25	0.36	0.53	*Débit d'air nominal max

Example Proposed Table

MERV	$PM_{52.2}$	$PM1_{52.2}$	$PM2.5_{52.2}$	$PM10_{52.2}$	Airflow rate (CFM) Débit d'air (pi³/min)	515	770	1025	1280	1735	*Max Rated Airflow
13	(%)	50	67	75	Initial Resistance (IWC) Résistance initiale (IWC)	0.10	0.18	0.25	0.36	0.53	*Débit d'air nominal max

The estimated manufacturers cost to implement the proposed regulation and ongoing costs appear to be low versus actual costs that can be incurred. Manufacturers will be required to have unique product frames for every different tier and size of filter produced. Without the labeling requirement, manufacturers could share filter frames across different tiers (performance levels) of filters. The labeling requirement will increase manufacturing carrying costs for raw materials used to make the filters. These costs likely will be passed onto the consumers. Allowing filter manufactures to simply register the filter information without having to print the data on the product, will still enable information to be available for the consumer, but reduce the manufacturing costs for the products.

A possible alternate to printing the data on the product, would be an option to have a message printed on the product directing consumers to the California Energy Commission website with the registered product information when the information is not printed on the product. This would enable manufactures to be able to update product performance information in a cost-effective and timely manner if product performance changes. The supply challenges of COVID-19 have highlighted the impact that global pandemics can have on the ability to source nonwovens. A supply chain interruption to the filtering material can change performance claims. If the performance claims need updating due to change in resistance or filtration performance change, there would be significant costs associated

with now obsolete materials and time required to print and make new components for the product with the updated information to use the new nonwoven. In today's world, information should be available to consumers, but it does not need to be printed on a product to be available. Since the recommendation is to allow manufacturers to ratio the air flow and use the same filter initial resistance as the tested filters the web site could provide a method for the consumer to enter their filter size and the airflow data would be available for them to obtain.

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