

October 11, 2024

Via E-Mail

Steve Leybourn
Appliance Program Manager
ENERGY STAR
U.S. Environmental Protection Agency

appliances@energystar.gov

Re: ENERGY STAR Program Requirements, Product
Specification for Air Cleaners, Eligibility Criteria, Draft 1, Version 3.0

Dear Mr. Leybourn:

On behalf of the Association of Home Appliance Manufacturers (AHAM), I am writing to provide our comments to the Environmental Protection Agency (EPA) on the Program Requirements Product Specification for Air Cleaners, Eligibility Criteria, Draft 1, Version 3.0, released on September 11, 2024.

AHAM supports EPA and the Department of Energy (DOE) in their efforts to provide incentives to manufacturers, retailers, and consumers for energy efficiency improvement, if product performance can be maintained for the consumer. AHAM has long argued that EPA should base its ENERGY STAR specifications on the analysis DOE conducts while amending its energy conservation standards and test procedures. We are pleased to see that much of EPA's analysis for this draft specification is based on that of DOE, however there are deviations and many of the comments below focus on tightening up language and references to DOE's standard and test procedure. AHAM also recommends harmonizing with DOE's test procedure and other reporting requirements in ways that the current draft specification does not. We recommend that EPA issue a Draft 2 with the suggestions incorporated.

I. EPA Should Align Reporting Requirements.

The draft specification calls for the mandatory reporting of rated and measured CADR for pollen. AHAM argued against the mandatory reporting of pollen in DOE's proposed Certification, Labeling, and Enforcement rule. AHAM reasoned that smoke and dust CADR are the two values used to calculate PM_{2.5} CADR, and therefore there was no purpose in having a reporting requirement for pollen that did not serve any additional purpose. DOE agreed with this reasoning and removed the pollen reporting requirement in its Final Rule. For these same reasons, EPA should remove the pollen reporting requirement in this ENERGY STAR specification.

AHAM further recommends that EPA include room size reporting in the version 3.0

specification. Reporting of recommended room size is required under the AHAM Verifide program for air cleaners and is likely to be part of the Federal Trade Commission's EnergyGuide label as well as Natural Resource Canada's EnerGuide label for air cleaners. Reporting of this public facing claim should be aligned. This is especially true for air cleaner recommended room size because room size is an important factor behind consumer purchase decisions, and it is plausible that a consumer will look for this information when comparing products on the Qualified Products List. According to 2017 AHAM consumer research, room size ranked third, only behind product cost and ease of use, when consumers ranked important factors when purchasing a new air cleaner.¹

II. AHAM Is Updating The Test Procedure For Air Cleaners.

AHAM is updating the test procedure for air cleaners and will keep both DOE and EPA informed of the process. For example, the updated test procedure will address issues like automode and is changing the sampling procedure to require the testing of at least two units for certification under the AHAM certification program.² These updates will be completed in due course, but until the process is finished and DOE has revised its test procedure, EPA should rely on the DOE test procedure as written. Departing from the DOE test procedure will create confusion for manufacturers and consumers especially because manufacturers are required to make energy related representations based on the DOE test procedure.

III. EPA Should Clarify/Correct Test Procedure References In The Specification.

DOE published a Final Rule establishing a test procedure for air cleaners, found at Appendix FF to Subpart B of 10 CFR Part 430. That test procedure incorporates the test procedure contained in ANSI/AHAM AC-7-2022 (AC-7) by reference. Throughout the draft specification, as noted in the examples below, EPA refers to Appendix FF, but definitions and other items are not specified directly in Appendix FF, and they are found in the AC-7 standard. EPA should either note that the DOE test procedure incorporates AC-7 by reference, or preferably, EPA should directly reference AC-7.

In the draft specification's "Definitions" section, the footnotes for the definitions to Clean Air Delivery Rate (CADR), Integrated Energy Factor (IEF), Active Mode, and PM_{2.5} refer to Appendix FF. These terms are not defined directly in the DOE test procedure at Appendix FF, and instead are referenced to AC-7. EPA's footnotes should be corrected to refer to AC-7 instead of Appendix FF, or should note that Appendix FF refers to AC-7. Similarly, the reference to PM_{2.5} CADR (footnote 4 in the draft) cites Appendix FF for particle size. Here too, EPA should cite AC-7 because the term is not directly defined in Appendix FF and the definition itself is a reference to how particle size is determined in the AC-7 test procedure. The footnote refers to two ways of achieving a valid test and for clarity's sake, the two methods should be referred to in the context of AC-7. AHAM would be glad to meet with EPA to discuss these details for clarity if that would be helpful.

¹ See Portable Home Appliances Saturation & Usage Research, conducted for AHAM by the Stevenson Group (2017).

² The current sampling procedure allows a choice of two sampling plans, but the single unit sample is being eliminated.

IV. EPA Should Rely Solely On PM_{2.5} CADR In Its Included Products Definition.

Under the draft specification's scope, EPA states that “[c]ertified room air cleaner models shall have a smoke CADR and a dust CADR between 30 to 600 cubic feet per minute (cfm), inclusive, to be eligible under this specification.” EPA’s reasoning is that this aligns with Appendix FF. This requirement will cause confusion because it does not align with AC-7, which is incorporated by reference in Appendix FF.

EPA specifies the smoke CADR and dust CADR for the range from 30 to 600. DOE has a range from 10 to 600 and EPA intentionally moves at the lower end up to 30, but then uses the range based on the calculation of the PM_{2.5} CADR, which is a calculation using the smoke CADR and dust CADR. This creates the possibility of a device that has smoke CADR of 29, a dust CADR of 31, and PM_{2.5} CADR of 30. In this scenario, the device meets the required PM_{2.5} CADR but would still be ineligible because its smoke CADR does not meet the accepted range of 30 to 600. To avoid this, AHAM recommends relying solely on PM_{2.5} CADR to define included products, consistent with DOE. EPA should use the same language as DOE in this section: “PM_{2.5} clean air delivery rate (CADR) between 10 and 600 (both inclusive) cubic feet per minute (cfm).” This language will avoid the above-described conflict. And it is consistent with EPA’s stated intent of harmonizing with DOE’s requirements.

V. EPA Should Not Incorporate Combination Products In This Specification.

EPA seeks feedback on whether combination products should be added to the scope of the Version 3.0 air cleaner specification. The AC-7 standard contains a definition for combination products, and this was drafted in anticipation of such products entering the market. AHAM believes that the time is not ripe for the ENERGY STAR specification to include combination products in its scope. At the moment, it is not clear what types of combination products are going to enter the market and when they will become available on a widespread basis. Therefore, AHAM believes that EPA should wait for the market to adjust itself as these devices become available and consider incorporating combination products into a future version of the specification.

VI. AHAM Suggests A Number Of Editorial Fixes In the Draft Specification.

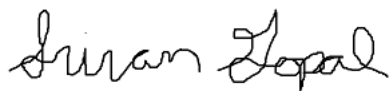
AHAM recommends making the following editorial changes in order to improve the clarity of the draft specification.

1. The definition for CADR includes a Note that repeats the last line of the primary definition. EPA should remove the note because it is redundant, or alternatively remove the last line of the primary definition.
2. There are two references marked footnote 4 in the draft specification, the first is attached to the definition of “Secondary Function” and the other is attached to the “Active Mode” definition. EPA should correct the numbering of its footnotes to ensure that they are in proper order.

3. The definition of “Included Products” found in the draft specification is not consistent with the one found in EPA’s Data & Analysis file. This does not appear to have a substantive impact on any of EPA’s analysis, but EPA should maintain consistency throughout the record it establishes to justify the air cleaner specification. The clearest way to do this is to use the verbatim definitions found in AC-7 and/or Appendix FF.
4. The Note included at line 56 of the draft specification is unnecessary if the editorial changes and references to AC-7 are incorporated. AHAM recommends referring to AC-7 directly throughout the document and deleting this Note.
5. Finally, Clause 3 at Line 130 of the draft specification is unclear, as AHAM does not understand EPA’s intent and the meaning behind the words, “[t]he measured value is the test result.” EPA should provide additional context in a Draft 2 and explain the clause.

AHAM appreciates the opportunity to comment on the Product Specification for Air Cleaners, Eligibility Criteria, Draft 1, Version 3.0 and would be glad to discuss these matters in more detail should you so request.

Respectfully submitted,



Sriram Gopal
Director, Technology and Environmental Policy

About AHAM: AHAM represents more than 150 member companies that manufacture 90% of the major, portable and floor care appliances shipped for sale in the U.S. Home appliances are the heart of the home, and AHAM members provide safe, innovative, sustainable and efficient products that enhance consumers’ lives. The home appliance industry is a significant segment of the economy, measured by the contributions of home appliance manufacturers, wholesalers, and retailers to the U.S. economy. In all, the industry drives nearly \$200 billion in economic output throughout the U.S. and manufactures products with a factory shipment value of more than \$50 billion.