



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
AIR AND RADIATION

June 15, 2018

Dear ENERGY STAR® Ventilating Fans Brand Owner or Other Interested Party:

The U.S. Environmental Protection Agency (EPA) is amending the ENERGY STAR Ventilating Fans specification. EPA released a [Draft Version 4.1 specification](#) on February 21, 2018 for stakeholder review. In response to stakeholder comments EPA received on this draft as well as further discussions with stakeholders, EPA is now releasing a limited topic proposal providing stakeholders an additional opportunity to comment on proposed amendments before the Agency finalizes the 4.1 specification.

Draft Version 4.1 Stakeholder Comments

EPA received public comments from five separate stakeholders regarding the Draft Version 4.1 specification. These comments, a comment response matrix, and all other materials related to this specification development process can be found on the [Ventilating Fans Version 4 product development webpage](#). The major topic areas of the comments as a whole included:

- Efficacy requirements for supply fans tested with a filter in place
- Lighting requirements
- Reporting requirements

Proposals

After conducting further data analyses, reviewing stakeholder comments, and participating in continued dialogue with ventilating fan stakeholders, EPA has developed the following proposals. Unless noted in this memo, no changes are proposed to the Draft Version 4.1 specification.

Definitions

EPA received a comment that the definition for “Product Family” may affect the meaning and therefore the quantity of product families certified as ENERGY STAR. EPA did not intend to alter the meaning of this definition in the specification, and as such, is proposing the following definition as a resolution:

Product Family: A fan model and all models derived from it such that differences between the models are limited to those that do not adversely affect product performance. Acceptable differences in characteristics include, but are not necessarily limited to: color, finish, and nameplate.

Efficacy Requirements

EPA received multiple comments regarding the efficacy criteria proposed for supply fans tested with a filter in place in Draft Version 4.1. Based on further analysis and follow-up

discussions with stakeholders, EPA is proposing the following table (corresponding to Table 2 in the Ventilating Fans Draft Version 4.1 specification) with updates to these efficacy requirements:

Product Type	Rated Airflow (CFM) Range	Minimum Efficacy Level (CFM/W)*	Maximum Allowable Sound Level (Sones)*
Bathroom and Utility Room Fans	10 to 89 CFM	2.8	2.0
	90 to 200 CFM	3.5	2.0
	201 to 500 CFM (max speed)	4.0	3.0
In-Line (Single-Port and Multi-Port) Fans	N/A	3.8	N/A
In-Line (Single-Port and Multi-Port) Fans tested with a filter in place ($6 \leq \text{MERV} < 13$)	N/A	3.6	N/A
In-Line (Single-Port and Multi-Port) Fans tested with a filter in place ($\text{MERV} \geq 13$)	N/A	2.9	N/A

In general, commenters felt that the Draft Version 4.1 efficacy level of 3.7 cfm/W was too strict for some filter types, though not unreasonable for fans tested with filters nearer to MERV 6 rating. With this understanding, and based on further data, stakeholder comments, and conversations with stakeholders, EPA is proposing to ease the stringency to 3.6 cfm/W (specifically for MERV ratings 6 to 12). In an effort to maintain simplicity of the specification efficacy requirements, but also allow fans designed for high filtration to certify, EPA is proposing one separate efficacy requirement for fans with MERV 13 or greater filters. EPA was informed of potential MERV 13 filtration requirements for incoming air in California, and as such, is proposing this separate level to not preclude efficient fans operating under higher static pressure loads. These two levels ensure that all fans certified to ENERGY STAR deliver high efficiency in their intended use.

Optional Reporting Requirements

EPA received comments that were generally not supportive of the Reporting Requirements outlined in the Draft Version 4.1 specification. Stakeholders clarified that the EPA proposed requirements did not align with the ASHRAE requirements for range hoods, as EPA intended, thus the proposal would present further testing burden. Further, both the ASHRAE and CEC requirements are in flux, making it more complicated selecting a reporting requirement. Given this, EPA has decided not to pursue reporting requirements for range hoods at this time, and all reporting requirements for range hoods will be removed from the specification for the final Version 4.1, including static pressure reference measurements that were detailed in Table 5 of the Draft Version 4.1 specification.

For bathroom and utility room fans as well, EPA now understands that the testing burden from the reporting requirements would be higher than intended and much of EPA's goal can be accomplished without requiring reporting. EPA is maintaining the sound level reporting

criteria for bathroom and utility room fans, but is making this optional. EPA will highlight the information on the ENERGY STAR Certified Products List for manufacturers who choose to supply it, but it will not be required for certification purposes.

Lighting Requirements

During the Draft Version 4.1 comment period, EPA determined that the proposed updates to the Lighting Requirements section resulted in unintended consequences. In order to avoid these, EPA is proposing the following clarifications and exemptions for the final Version 4.1 specification:

- All newly-certified residential ventilating fans that include lighting shall meet the ENERGY STAR Program Requirements, Product Specification for Luminaires - Eligibility Criteria *for non-directional luminaires* in effect at the time of certification of the ventilating fan. Night lights providing 20 lumens or less shall be exempt from the total light output requirement as well.
- In addition, ventilating fans that are shipped with ENERGY STAR certified lamps are exempt from In Situ Air Temperature Testing and Minimum Light Output requirements in the Luminaires specification. However, as indicated in the Luminaires specification, lamps must be chosen that are appropriate for the fixture, i.e., recessed and enclosed fixtures may not use bulbs that specifically say they are not for such fixtures.

EPA has clarified that ventilating fan lighting shall meet the requirements of the ENERGY STAR Luminaires specification specific to non-directional luminaires. Though EPA is exempting ventilating fans shipped with ENERGY STAR certified lamps from in situ air temperature testing at this time, it believes that this testing is relevant to bathroom ventilating fans and will consider this requirement in the next major revision of the specification.

Comment Submittal Process

If you have any remaining comments or concerns about these changes, please submit them by **June 29, 2018** to VentilatingFans@energystar.gov. All comments will be posted to the ENERGY STAR Product Development [webpage](#) unless the submitter requests otherwise. Please direct any specific questions to Abigail Daken at EPA, Daken.Abigail@epa.gov or 202-343-9375, and Jacob Bayus at ICF, Jacob.Bayus@icf.com or 202-791-8871. Barring objections from stakeholders, EPA expects to finalize Version 4.1 in July 2018, at which point, in-line supply fans may immediately be certified to the specification.

Thank you for your continued support of the ENERGY STAR program.

Sincerely,



Abigail Daken, Manager
ENERGY STAR HVAC Program