Vent Fan Version 4.0 Spec - Stakeholder Comments Draft 1

Topic	Comment	Draft Comment Response
General		
Definitions	One stakeholder supports the Working Speed Definition revision to match the HVI 916 definition.	Thank you for the comment
Process	One stakeholder suggested the establishment of a regular forum whereby EPA and manufacturers can develop a strategic plan outlining both short- and long-term changes to the Ventilating Fan product specification.	EPA agrees that this is a good idea and will work with HVI to determine the best forum for these meetings.
Market Penetration	Two stakeholders believe that the portion of ENERGY STAR certified models available for sale is not a good indicator of market penetration. They estimate that market penetration is significantly lower when unit sales volumes are used as the measure.	With stakeholder's market insights and data, EPA revised its market penetration for 2013 to 33%. Several stakeholders also argued that the market penetration is even lower, however, given the high percentage of vent fan models that are certified ENERGY STAR, the specification still needs revision to maintain differentiation.
Efficacy	One stakeholder requests that EPA consider incremental adjustments to the efficacy thresholds. They propose the revised first increment be implemented in this revision cycle and the second increment in the next 3 year cycle, after the strategic meetings. This less aggressive approach will reduce the number of disqualified bath fans from 38% to 28% of the currently qualified models and will reduce the number of disqualified inline fans from 67% to 35% of the currently qualified models.	EPA chose not to adopt the phase-in approach as it would not address the issue that significantly high percentage of fans meet ENERGY STAR criteria, leading to little differentiation in the market. At the levels, an ample selection of products is available.
Airflow	One stakeholder asked to clarify some ambiguity regarding the groupings of fans based on airflow in Table 1. It is not specified if the airflow range is referring to the tested or rated airflow. The commenter's preference is to use the rated airflow to give the manufacturers more flexibility.	EPA agrees that the airflow scope should be based on the rated airflow. This correction will be included in the next draft.
Model Availability	One stakeholder commented that the changes proposed will reduce the percentage of ESTAR eligible models from 31% of the HVI Certified Products Directory (CPD) listings down to 13% of the HVI CPD listings which unceremoniously cuts the number of ESTAR models available in the market in half. This is a disservice to consumers and manufacturers.	One of the goals of ENERGY STAR is to provide market differentiation such that the ENERGY STAR brand is a clear sign of superior energy efficiency. Upon review of current vent fan offerings, EPA found that there are more than the desired number of products that meet ENERGY STAR, which justifies the need for revision. EPA investigated the percent of ENERGY STAR models available to consumers through popular on line outlets, and at popular retail stores. In addition, EPA had extensive discussions with stakeholders to understand whether the HVI directory accurately reflects models available in the

		market, and why. Taking all this into account, EPA is confident that the proposed levels will leave consumers a good level of choice and differentiation.
	One stakeholder noted that in the California Code of regulations Title 24, Part 11 (Cal Green) under Residential Mandatory Measures, the state opted to make ENERGY STAR bathroom exhaust fans mandatory. Market forces are pushing manufacturers to design ENERGY STAR products, and that has led to the large number of products available.	Particularly when ENERGY STAR specifications have been in place for an extended period time, they may be adopted by regulatory bodies, having the benefit of harmonization on testing. Regulations at ENERGY STAR levels are a driver for revision to ensure ENERGY STAR is the mark of superior efficiency.
Bath Fans		
Efficacy	One stakeholder suggested the change in efficacy from 1.4 to 2.8 CFM/Watt and the increase in installed performance ratio from 0.6 to 0.7 will disqualify many of the inexpensive models.	EPA's analysis showed that if consumers invest in a slightly more expensive bath fan with an efficient motor, it yields a longer lifetime and savings in return.
	One stakeholder suggested that quadrupling the v3.2 efficacy level requirement of bathroom fans 50 to 89 CFM to 5.6 CFM/W is not a stretch of technical capability for leading bathroom exhaust fan manufacturers. EPA should raise the efficacy and sound requirements higher than the levels already proposed in draft 1.	Thank you for the comment.
	One stakeholder agrees with the proposed increase in efficacy levels for the Bathroom and Utility Room airflow bins at all speeds noting that the majority of bathroom and utility fans for residential use are under 200 CFM.	Thank you for the comment.
Less than 50 CFM	One commenter suggests that an additional category of fans rated 50 cfm or less be established with a minimum efficacy of 1.8-2.0 CFM/Watt. This would be a significant increase from the current requirement and still be achievable without significant added cost.	To address this issue, EPA will revise the small airflow bin to 10 to 89 CFM from 50 to 89 CFM.
	Two stakeholders commented that they do not support the revision as it gives the impression that multiple speed fans used to meet building code requirements would not be ENERGY STAR certified less than 50 CFM. These types of fans are typically the highest efficacy as they use BLDC motors. They recommend that a footnote be added noting that the airflow bin is for the maximum airflow and that all lower speeds can also qualify under the efficacy of their bin location. We could then support this revision. One of the two stakeholders asked EPA to clarify if fan speeds less than 50 cfm are exempt from efficacy and sound requirements only if the highest speed produces at least 50 cfm; or simply revert to the previous spec version's 10 cfm rating.	
	One stakeholder accepts the concept of the revised Airflow Bins under the Bathroom and Utility Room categories which eliminates any ENERGY STAR requirements for fans with airflow under 50 CFM.	
	One stakeholder endorses the clarification that multispeed fans must meet ENERGY STAR airflow efficacy levels of 70% at 0.25 WG compared to 0.10 WG only at high speed.	Thank you for the comment

Installed Fan Performance	In regard to the installed fan performance, one stakeholder has several concerns: “All certifying ventilating fan models, with the exception of in-line and range hood models…” makes no exclusion for direct discharge fans. Direct discharge fans aren’t tested at 0.1” and 0.25”, they are tested at 0.03” w.g., so the Installed Fan Performance is not applicable. There is a discrepancy between the Installed Fan Performance verbiage (lines 209-212) and the Note immediately following (lines 214-217), in that the rated airflow is referenced, rather than the tested airflow. Again, rated airflows are preferred. Also, the Note indicates that Installed Performance applies to the fan’s max airflow. Please clarify if this requirement is applicable only to max speed.	This correction will be made in the upcoming draft specification.
	One stakeholder proposed that the installed performance ratio be eliminated for multiple and variable capacity fans, as well as single speed fans.	For multi-speed fans, EPA proposes to require installed fan performance only at high speed.
Range Hoods		
Scope	Two stakeholders do not support the "up to 200 CFM" working speed modifier. Working speed is dependent on the range hood design and blower system. If the working speed meets the 2 sone limit, is the 200 CFM limit relevant?	EPA has addressed this issue by removing the airflow limit on range hoods and replacing it with an input power (Watts) limit at working speed.
	One stakeholder is concerned that the restricting range hoods to those which are less than 600 cfm on high speed is ill-founded.	
Sound		
Sones	One stakeholder acknowledges the increased cost to manufacturers to test noise levels at two points but would like to propose a phasing-in of requiring Sone levels to be reported at 0.25 WG three years after the date of enacting the ENERGY STAR Ventilating Fans version 4.0 specification. A transparent way to accomplish comparison of ENERGY STAR products would be to indicate probable noise levels based on the anticipated installation. This stakeholder also concurs with the decreased Sone requirement for Airflow Bin 90 – 200 CFM from 3.0 Sones to 2.0 Sones.	Thank you for the comment. EPA looks forward to have continued discussions on the possibility of including sound requirements at 0.25 in w.g.
	One stakeholder suggested that the sone requirements could be addressed as part of a long term plan.	
Inline Fans		
Efficacy	One stakeholder suggested that changing the efficacy requirement from 2.8 to 3.8 cfm/watt will disqualify 65% of the current offering. If the efficacy requirement increased from 2.8 to 3.4 cfm/watt you would still disqualify 40% of the currently listed products, and still allow for a variety different price points and design approaches.	EPA chose not to adopt the phase-in approach as it would not address the issue that significantly high percentage of fans meet ENERGY STAR criteria, leading to little differentiation in the market.
	One stakeholder agrees with the proposed increase in efficacy levels for the Bathroom and Utility Room airflow bins at all speeds noting that the majority of bathroom and utility fans for residential use are under 200 CFM.	Thank you for the comment
General	One stakeholder said clarification is needed as inline fans don’t have sound requirements listed in the table, yet they are called out to meet the efficacy and sound requirements in the text.	This correction will be made in the upcoming draft specification.
Lighting		
General	Three stakeholders support the change to the lighting requirements.	Thank you for the comment

	One stakeholder had a clarifying question about the proposed change to the lighting requirements: Option 1 indicates that all fans would be considered non-directional (line 173). There are fans that are currently qualified as directional luminaires. Would these particular fans be disqualified unless they use Option 2 going forward?	Per the Luminaries specification, the Vent Fan products are considered non-directional. Manufacturers now have an option of qualifying to ENERGY STAR Lamps specification to avoid any disqualification.
Effective Date		
General	One stakeholder encouraged EPA to not discount the significant Market Disruption associated with the efficacy and installed performance changes proposed in V4.0. If relief on efficacy is established, the Effective Date may be more attainable.	There is a nine month period from the time the specification is finalized to the time it is effective. This time is provided for the smooth transition of products between versions and to avoid market disruption.
	One stakeholder is concerned that the effective date for the new specification will interfere with verification testing cycles in progress and recommends that the implementation be timed to allow HVI and other Certification Bodies conducting verification to complete all open cycles.	EPA will work with the CBs such that there is no disruption in the verification testing cycle and that the testing is complete in time for the new specification to go into effect.
Misc.		
General	One stakeholder asked that in lines 285 – 304 the verbiage related to installation manual requirements be modified to eliminate the ambiguities and irrelevant phrases.	These edits will be made in the upcoming draft specification.
Test Methods	One stakeholder asked EPA to update the Test Method References to HVI Publications	