

Summary of Changes
ENERGY STAR® for Residential Ceiling Fans
Draft 1 Version 2.0 Specification

EPA has revised the current Version 1.1 Residential Ceiling Fan specification to clarify ambiguities and revisit existing Tier II requirements. While minor clarifications are found throughout the revised Draft 1 Version 2.0 specification, this summary of changes document is intended as a road map of the major changes made to the existing specification format and performance requirements.

1) **Definitions:**

The following definitions have been amended:

B. Light Kit:

This definition has been rewritten to agree with the light fixture definition provided in the ENERGY STAR specification for Residential Light Fixtures (RLF) and now provides details describing the acceptable components included in an ENERGY STAR qualified light kit.

The definition of Integral Light Kit has been rewritten to exclude the word “hardwired” and to further clarify that it must be integrated into the bottom of the fan, attached at the time of purchase, and cannot be replaced by another light kit.

G. Standby Mode:

This definition has been rewritten to provide a more technical and detailed definition of Standby Mode. The new definition follows the Standby Mode definition provided in the *Draft International Electrotechnical Commission (IEC) 62301: Household Appliances – Measurements of Standby Power*.

I. Hugger Fan:

This definition was expanded to specify that Hugger Fans are those that are marketed and designed as such and should not be confused with traditional models that offer multi-mount options at the time of purchase.

2) **Qualifying Products:**

This section was slightly modified to reflect the new Section 3: Performance Specification and Lighting Requirements for Qualifying Products, described below.

3) **Performance Specification and Lighting Requirements for Qualifying Products:**

This section replaces the existing (Version 1.1) Section 3: Energy-Efficient Specifications for Qualifying Products. Included in this new section are CFM, CFM/watt, and lighting requirements only. Controls, Sound, Warranty, and Consumer Information, covered under Section 3 of the existing specification, are now listed under separate sections.

A. Airflow Efficiency

The following are changes made to Tables 1 and 2:

Table 1 (Tier I)

Medium speed minimum air flow and efficiency requirements have been changed to 3000 CFM

and 100 CFM/watt, respectively. This change would become effective October 1, 2003.

Table 2 (Tier II)

Minimum air flow and efficiency requirements are the same as listed in Table 1 (Tier I), however, the 5% tolerance will no longer be accepted for qualification under Tier II.

Standby Mode, Additional Fan Sizes, and Power Factor

Placeholders for standby mode, additional fan diameters performance categories, and power factor requirements have been deleted. EPA continues to be interested in these performance measures and will consider including them in future specification revisions depending on industry interest, available data, and energy savings potential.

Multiple Fan Speed Models

This requirement has been expanded to give partners the choice in choosing which three speeds will be used to qualify the product as ENERGY STAR. The partner is encouraged to list all speeds in the Performance Table, however, the three speeds that are used to qualify the model as ENERGY STAR must be indicated as such in the table (see Section 7).

B. Lighting

The existing (Version 1.1) Tier II lighting requirement (pin-based designs only) is now included as a Tier I requirement under the new Version 2.0 specification. **The effective date for this requirement continues to be October 1, 2003.**

4) Controls:

This section was created to address control requirements, separately.

Horizontally mounted slide switches have been added to the list of acceptable controls in the Draft 1 Version 2.0 specification. In addition, partners are required to clearly identify airflow direction on the switch housing or within product literature.

Adjustment of airflow, included under Tier II in the existing (Version 1.1) specification, is now included under Tier I of the Draft 1 Version 2.0 specification. **The effective date of this requirement continues to be October 1, 2003.**

5) Sound

This section was created to address sound requirements, separately.

There are no requirements for sound levels under the Draft 1 Version 2.0 specification. While it is EPA's intention to continue researching minimum sound requirements the text outlining its approach to testing and measuring sound, has been deleted.

6) Warranty

This section was created to address warranty requirements, separately. No changes have been made to the warranty requirements under the Draft 1 Version 2.0 specification.

7) Consumer Information

This section was created to address consumer information requirements, separately.

A statement was added requiring manufacturers to indicate which fan speeds meet ENERGY STAR requirements, if more than three speeds are listed in the Performance Table.

8) Testing and Reporting Procedures

This new section replaces the existing (Version 1.1) Section 4: Test Criteria. The three sub-sections have been reordered: Laboratory Testing, Reporting Requirements, and Challenge Process Option.

The Solid State Test Method, described in detail in the existing (Version 1.1) specification, has been replaced by a reference to EPA's *ENERGY STAR Testing Facility Guidance Manual: Building a Testing Facility and Performing the Solid State Test Method for ENERGY STAR Qualified Ceiling Fans* in the Draft 1 Version 2.0 specification. All references to the Solid State Test Method have been replaced throughout the document to reference this guidance manual.

A statement was added requiring that manufacturers test and submit the appropriate documentation when qualifying light kits, as required by the ENERGY STAR RLF specification.

A. Laboratory Testing

This section has been expanded upon to emphasize that ceiling fan testing for ENERGY STAR qualification can only be performed by those facilities who have reviewed EPA's Testing Facility Guidance Manual and have been approved by EPA to test ceiling fans under the ENERGY STAR Ceiling Fan program.

B. Reporting Requirements

Difference in Housing has been added to the list of characteristics that require separate test data.

C. Challenge Process Option

The Challenge Process presented in the existing (Version 1.1) specification has been expanded to ensure a standard operating procedure when addressing challenges under this specification. The new challenge process, included in the Draft 1 Version 2.0 specification, follows the Home Ventilation Institute's (HVI) *Challenge Requirements and Procedures* document and outlines the responsibilities of all parties involved in the challenge. Stakeholders are asked to comment on the product acquisition and submittal process.

9) Effective Date:

The Draft 1 Version 2.0 specification presents a Tier I specification of October 1, 2003. A Tier II effective date is open for comment.

A. Qualifying and Labeling Products Under the Version 2.0 Specification

This section has been added to explain that all products with a **date of manufacture** after October 1, 2003 must meet the Version 2.0 Tier I requirements in order to bear the ENERGY STAR on the product or in product literature.

B. Elimination of Grandfathering

This section has been added to stress that ENERGY STAR qualification is not automatically granted for the life of the product model. Models that qualified under the Version 1.1 specification must meet the new Version 2.0 specification to continue to bear the ENERGY STAR.