BUILDING TECHNOLOGIES PROGRAM



Energy Efficiency & Renewable Energy



Energy Conservation Program for Consumer Products and Commercial and Industrial Equipment

American Lighting Association Meeting January 19, 2012 Agenda







- "Ceiling fan" means a nonportable device that is suspended from a ceiling for circulating air via the rotation of fan blades. (42 USC 6291(49))
- "Ceiling fan light kit" means equipment designed to provide light from a ceiling fan that can be –
 - (A) integral, such that the equipment is attached to the ceiling fan prior to the time of retail sale; or
 - (B) attachable, such that at the time of retail sale the equipment is not physically attached to the ceiling fan, but may be included inside the ceiling fan at the time of sale or sold separately for subsequent attachment to the fan. (42 USC 6291(50))
- "Torchiere" means a portable electric lamp with a reflector bowl that directs light upward to give indirect illumination. (42 USC 6291(42))



- All Testing must be done in accordance to DOE's test procedures as described in the Code of Federal Register (10 CFR Part 430)
 - See online version of eCFR at
 - <u>http://ecfr.gpoaccess.gov/cgi/t/text/text-</u> <u>idx?c=ecfr&sid=04831af885bad98afcfa0ea58248f27f&rgn=div5&view=t</u> <u>ext&node=10:3.0.1.4.18&idno=10</u>
- Ceiling Fans:
 - Appendix U to Subpart B of Part 430 Uniform Test Method for Measuring the Energy Consumption of Ceiling Fans
- Ceiling Fan Light Kits with Medium Screw Base Sockets and Ceiling Fan Light Kits with Pin-based Sockets for Fluorescent Lamps:
 - Appendix V to Subpart B of Part 430 Uniform Test Method for Measuring the Energy Consumption of Ceiling Fan Light Kits



Energy Efficiency & Renewable Energy

- Ceiling Fans (Appendix U to Subpart B of Part 430)
 - DOE specifies the use of the ENERGY STAR Program Requirements, V1.1 (Dec. 2002).
- Ceiling Fan Light Kits (Appendix V to Subpart B of Part 430)
 - With medium screw-base sockets (eg., E26): Test lamps according to ENERGY STAR Program Requirements for CLFs, V3.0, October 30, 2003.
 - With pin-based sockets for fluorescent lamps: Test according to the ENERGY STAR Program Requirements for Residential Light Fixtures, V4.0, January 10, 2005.



Test the Minimum Number of Units of a Basic Model Specified in Sections 429.23 (ceiling fan light kits subject to performance standard) using the DOE Test Procedure (Maximum Number of Units is at the Discretion of the Manufacturer)



ENERGY Energy Efficiency & Renewable Energy

- Ceiling Fans
 - EPACT 2005 specified design standards for ceiling fans. (42 USC 6295(ff); 10 CFR Part 430.32(s))
 - All ceiling fans manufactured on or after January 1, 2007, shall have the following features:
 - i) Fan speed controls separate from any lighting controls
 - ii) Adjustable speed controls (either more than 1 speed or variable speed)
 - iii) The capability of reversible fan action except for
 - A) Fans sold for industrial applications;
 - B) Outdoor applications; and
 - C) Cases in which safety standards would be violated by the use of the reversible mode.
- Torchieres
 - EPACT 2005 specified design standards for different types of ceiling fan light kits. (42 USC 6295(x); 10 CFR Part 430.32(t))
 - All torchieres manufactured on or after January 1, 2006, "shall not be capable of operating with lamps that total more than 190 watts"

U.S. DEPARTMENT OF

- Ceiling Fan Light Kits
 - EPACT 2005 specified performance standards or design standards for different types of ceiling fan light kits. (42 USC 6295(ff); 10 CFR Part 430.32(s))
 - With medium screw-base sockets manufactured on or after January 1, 2007 must be packaged with screw-based lamps that fill all of the sockets and meet or exceed the performance specified in the ENERGY STAR Program Requirements for Compact Fluorescent Lamps, Version 3.0.
 - With pin-based sockets for fluorescent lamps manufactured on or after January 1, 2007 must meet the ENERGY STAR Program Requirements for Residential Light Fixtures. Version 4.0.
 - With all sockets other than medium screw-base or pin-based for fluorescent lamps manufactured on or after January 1, 2009, "shall not be capable of operating with lamps that total more than 190 watts."

Manufacturer Explanation



A Manufacturer	 Is the domestic manufacturer or an importer.
	 May produce equipment at multiple facilities in various locations with the same model characteristics.
	 May group individual models into basic models at the manufacturer's discretion.
	 May elect to use a third-party (e.g., certified laboratory) for testing and certification purposes.
	 Must determine certified ratings through testing.
	 Is responsible for certification to the Department.

Basic Model Explanation



A Basic Model	May contain multiple models/model numbers/SKUs.
	 Is manufactured by a single manufacturer, although it may be distributed under different brand names.
	 Is made up of models that have essentially identical electrical, physical and functional characteristics that affect energy consumption and/or efficiency.
	May not contain models from multiple product classes.
	 Can be made up of only one model. There is no requirement for multiple models within a basic model.
	 Must have the same certified rating.

- **ALL** models currently being distributed in commerce should already be certified with the Department.
- New Model Certification Requirements:
 - These requirements became effective July 5, 2011 for ceiling fan, ceiling fan light kit, and torchieres.
 - These requirements are applicable to all models entered into commerce.
 - Submit certification report before distribution in commerce for all new models.
- Only electronic submission accepted. Submit online at <u>https://www.regulations.doe.gov/ccms</u> using product-specific, Excel templates provided by DOE.
- During the year, recertify if the redesign of an existing model increases energy consumption or decreases energy efficiency resulting in product re-rating.
- Consistent with 10 CFR part 429, a subset of the certification information is now publicly available online.



- Annual Certification Requirement Includes:
 - Discontinued Models All discontinued basic models previously certified that have not previously been reported as discontinued (Action = "D" for Discontinued);
 - Existing/Carryover Models All previously certified basic models that are still in distribution in commerce that are unchanged (Action = "E" for existing/carryover model);
 - Correction/Revision to Previously Certified Basic Model All previously certified basic models that are still in distribution in commerce but for which the manufacturer needs to report new or changed information (Action = "C" for Correction)
 - New Basic Model Any new models that have not been previously certified that a manufacturer anticipates offering for distribution in commerce (Action = "N" for New).
- No additional certification testing required for annual submission.
- Annual Certification Dates (Submittal Must be Made By):
 - March 1st: Celling Fan and Ceiling Fan Light Kits
 - September 1st: Torchieres



DOE Office of the General Counsel, Office of Enforcement	Enforces the energy conservation, water conservation, and design standards.
Certification	 Seeking civil penalties for failure to certify and improper certification. Certification must be based on testing in accordance with the applicable test procedure and sampling plan or a valid AEDM/ARM.
Standards	 Seeking civil penalties for distribution of products that do not meet Federal standards. Testing products suspected of failing to meet Federal standards.



Civil Penalty	 Failure to meet applicable efficiency standards and certification violations. Penalties for violations of standards calculated per unit offered for distribution in commerce. Penalties for certification violations calculated per day for each basic model improperly certified or not certified. DOE has issued guidance on the imposition of civil penalties.
Subpoena	DOE issues a subpoena in order to obtain test data and to obtain information regarding distribution of regulated products.
Noncompliance Determination	DOE makes a determination of noncompliance based on certification information, on test data provided by a manufacturer, or on test data obtained through DOE testing.
Injunction	DOE may seek a court order to ensure compliance with any regulatory requirement.



- ENERGY STAR Verification Testing Program (FY2011)
 - Test approximately 100 ENERGY STAR-listed products purchased from retail, including refrigerators, room air conditioners, central air conditioners, clothes washers, dishwashers, and water heaters.
- Assessment Testing
 - Target testing from retail that encompass a variety of covered product types.
 - 80-percent of units selected have resulted in an enforcement action.
- Test Data Reviews
 - Review manufacturer test data underlying the certified ratings.
- Enforcement Testing
 - Test a minimum sample of four when DOE has a reason to believe potential noncompliance.
- Complaints
 - Investigate all complaints using one of the methods described above.
 - Follow-up on all failures/notifications from Industry Verification Programs.
- Outreach
 - Conduct webinars and presentation seminars to answer questions and explain obligations to the manufacturers.

Next Scheduled Document for Active DOE Standards and TP Rulemakings



Product	Stage	Scheduled Issuance
Lighting Systems/Luminaires	Request for Information	Issued
Ceiling Fans	TP NOPR	2013
Ceiling Fan Light Kits	TP NOPR	2013



Q. Will airflow certification be requested?

A: DOE is evaluating whether to initiate a standards rulemaking for airflow efficiency. Certification would be based on promulgation of airflow efficiency standards resulting from any rulemaking DOE may conduct.

Q. Can LED lamps and sockets that are GU-24, pin based and candelabra sockets, be made exempt from having a 190 watt power limiter?

A: Not at this time. DOE will be exploring these questions further in the upcoming test procedures NOPR for ceiling fan light kits, at which time Industry comment will be solicited.

Questions / Information



Submit a Question:	 DOE Test Procedure Website: <u>http://www.eere.energy.gov/guidance/default.aspx?pid=2&spid=1</u> Ashley Armstrong: <u>Ashley.Armstrong@EE.Doe.Gov</u>
Request a Test Procedure Waiver:	 DOE's regulations allow manufacturers to apply for a waiver when a manufacturer determines that a given basic model contains one or more design features that prevent testing in accordance with DOE's test procedure. Email: <u>AS_Waiver_Requests@ee.doe.gov</u>
File a Complaint:	Email: <u>energyefficiencyenforcement@hq.doe.gov.</u> The Office of Enforcement will protect the identity of complainants to the maximum extent permitted by law.
DOE's Certification, Compliance, and Enforcement Website:	http://www.eere.energy.gov/buildings/appliance_standards/certification_n_enforcement.html
DOE's Online Certification System:	https://www.regulations.doe.gov/ccms/
Enforcement Information:	http://gc.doe.gov/energy_efficiency_enforcement.htm