[6450-01-P]

DEPARTMENT OF ENERGY

Office of Energy Efficiency and Renewable Energy

[Case No. RF-023]

Notice of Petition for Waiver of GE Appliances from the Department of Energy Residential Refrigerator and Refrigerator-Freezer Test Procedure, and Grant of Interim Waiver

AGENCY: Office of Energy Efficiency and Renewable Energy, U.S. Department of Energy.

ACTION: Notice of petition for waiver, notice of grant of interim waiver, and request for comments.

SUMMARY: This notice announces receipt of and publishes the GE Appliances (GE) petition for waiver (hereafter, "petition") from specified portions of the U.S. Department of Energy (DOE) test procedure for determining the energy consumption of certain specific electric refrigerators and refrigerator-freezers. In its petition, GE provides an alternate test procedure and DOE solicits comments, data, and information concerning GE's petition and the suggested alternate test procedure. Today's notice also grants GE an interim waiver from the electric refrigerator and refrigerator-freezer test procedure, subject to use of the alternative test procedure set forth in this notice.

DATES: DOE will accept comments, data, and information with respect to the GE Petition until **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: You may submit comments, identified by case number "RF-023," by any of the following methods:

- Federal eRulemaking Portal: http://www.regulations.gov. Follow the instructions for submitting comments.
- E-mail: AS_Waiver_Requests@ee.doe.gov Include the case number [Case No. RF-023] in the subject line of the message.
- Mail: Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Program, Mailstop EE-2J/1000 Independence Avenue, SW, Washington, DC 20585-0121. Telephone: (202) 586-2945. Please submit one signed original paper copy.
- Hand Delivery/Courier: Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Program, 950 L'Enfant Plaza SW, Suite 600, Washington, DC 20024. Please submit one signed original paper copy.

Docket: For access to the docket to review the background documents relevant to this matter, you may visit the U.S. Department of Energy, 950 L'Enfant Plaza SW, Washington, DC, 20024; (202) 586-2945, between 9:00 a.m. and 4:00 p.m., Monday through Friday, except Federal holidays. Available documents include the following items: (1) this notice; (2) public comments received; (3) the petition for waiver and application for interim waiver; and (4) prior DOE

waivers and rulemakings regarding similar refrigerator-freezer products. Please call Ms. Brenda Edwards at the above telephone number for additional information.

FOR FURTHER INFORMATION CONTACT: Mr. Bryan Berringer, U.S. Department of Energy, Building Technologies Program, Mail Stop EE-2J, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC 20585-0121. Telephone: (202) 586-0371. E-mail: AS_Waiver_Requests@ee.doe.gov.

Ms. Elizabeth Kohl, U.S. Department of Energy, Office of the General Counsel, Mail Stop GC-71, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC 20585-0103. Telephone: (202) 586-7796. E-mail: Elizabeth.Kohl@hq.doe.gov.

SUPPLEMENTARY INFORMATION:

I. Background and Authority

Title III, Part B of the Energy Policy and Conservation Act of 1975 (EPCA), Pub. L. 94-163 (42 U.S.C. 6291-6309, as codified), established the Energy Conservation Program for Consumer Products Other Than Automobiles, a program covering most major household appliances, which includes the electric refrigerators and refrigerator-freezers that are the focus of this notice.[1] Part B includes definitions, test procedures, labeling provisions, energy conservation standards, and the authority to require information and reports from manufacturers. Further, Part B authorizes the Secretary of Energy to prescribe test procedures that are reasonably designed to produce results that measure the energy efficiency, energy use, or

[1] For editorial reasons, upon codification in the U.S. Code, Part B was re-designated Part A.

estimated annual operating costs of a covered product, and that are not unduly burdensome to conduct. (42 U.S.C. 6293(b)(3)) The test procedure for automatic electric refrigerators and refrigerator-freezers is contained in 10 CFR part 430, subpart B, appendix A1.

The regulations set forth in 10 CFR 430.27 contain provisions that enable a person to seek a waiver from the test procedure requirements for covered products under certain conditions. In particular, the Assistant Secretary for Energy Efficiency and Renewable Energy (the Assistant Secretary) may grant a waiver if it is determined that (1) the basic model for which the petition for waiver was submitted contains one or more design characteristics that prevents testing of the basic model according to the prescribed test procedures, or (2) the prescribed test procedures may evaluate the basic model in a manner so unrepresentative of its true energy consumption characteristics as to provide materially inaccurate comparative data. 10 CFR 430.27(l). Petitioners must include in their petition any alternate test procedures known to the petitioner to evaluate the basic model in a manner representative of its energy consumption. 10 CFR 430.27(b)(1)(iii).

The Assistant Secretary may grant the waiver subject to conditions, including adherence to alternate test procedures. 10 CFR 430.27(l). Waivers remain in effect pursuant to the provisions of 10 CFR 430.27(m).

Any interested person who has submitted a petition for waiver may also file an application for interim waiver of the applicable test procedure requirements. 10 CFR 430.27(a)(2). The Assistant Secretary may grant an interim waiver request if it is determined that the applicant will experience economic hardship if the interim waiver is denied, if it appears likely that the petition for waiver will be granted, and/or the Assistant Secretary determines that it would be desirable for public policy reasons to grant immediate relief pending a determination on the petition for waiver. 10 CFR 430.27(g). If granted, an interim waiver remains in effect for 180 days or until DOE issues its determination on the petition for waiver, whichever is sooner. DOE may extend an interim waiver for an additional 180 days. 10 CFR 430.27(h).

II. Petition for Waiver of Test Procedure and Application for Interim Waiver

On January 26, 2012, GE submitted a petition for waiver from the test procedure applicable to residential electric refrigerators and refrigerator-freezers set forth in 10 CFR part 430, Subpart B, Appendix A1. GE is designing new refrigerator-freezers that incorporate multiple defrost cycles. In its petition, GE seeks a waiver from the procedure provided in Appendix A1 because that test procedure does not account for products that use multiple defrost cycles. Therefore, GE has asked to use an alternate test procedure that is the same as the test procedure provisions for products with long time or variable defrost DOE published in an interim final rule (75 FR 78810, December 16, 2010). On January 27 and July 19, 2011, Samsung submitted similar petitions for waiver and requests for interim waiver for basic models of refrigerator-freezers that incorporate multiple defrost cycles. After initially granting these interim waiver requests, DOE ultimately granted Samsung with a waiver for the products specified in those petitions through a final decision and order that adopted a modified version of

the interim final rule's procedure. 77 FR 1474 (Jan. 10, 2012). That modified procedure was also adopted by DOE as part of a recently published rule that finalized the test procedures that electric refrigerator and refrigerator-freezer manufacturers must use starting in 2014. See 77 FR 3559 (Jan. 25, 2012).

GE also requests an interim waiver from the existing DOE test procedure. An interim waiver may be granted if it is determined that the applicant will experience economic hardship if the application for interim waiver is denied, if it appears likely that the petition for waiver will be granted, and/or the Assistant Secretary determines that it would be desirable for public policy reasons to grant immediate relief pending a determination of the petition for waiver. (10 CFR 430.27(g).

DOE has determined that GE's application for interim waiver does not provide sufficient market, equipment price, shipments and other manufacturer impact information to permit DOE to evaluate the economic hardship GE might experience absent a favorable determination on its application for interim waiver. DOE has determined, however, that it is likely GE's petition will be granted, and that it is desirable for public policy reasons to grant GE relief pending a determination on the petition. Previously, DOE granted a waiver to Samsung for other basic models incorporating multiple defrost technology (77 FR 1474, Jan. 10, 2012), and DOE has determined that it is desirable to have similar basic models tested in a consistent manner.

GE's petition requested an alternate test procedure to account for the energy consumption of its refrigerator-freezer models with multiple defrost cycles. The alternate test procedure

requested by GE is the same as the test procedure published in the interim final rule referenced above. As noted above, DOE recently published a final test procedure for refrigerators, refrigerator-freezers, and freezers (77 FR 3559, Jan. 25, 2012). The alternate test procedure sought by GE is identical to the interim final rule test procedure provisions for products with long-time or variable defrost adopted in the final test procedure rule. Because DOE has finalized a test procedure that accounts for products that employ these long-time or variable defrost control strategies, DOE is granting GE's request but requiring that the company use the more recently finalized procedure in order to ensure testing consistency for all manufacturers when measuring the energy consumption of these types of products.

For the reasons stated above, DOE grants GE's application for interim waiver from testing of its refrigerator-freezer product line containing multiple defrost cycles. Therefore, *it is ordered that*:

The application for interim waiver filed by GE is hereby granted for the specified GE refrigerator-freezer basic models that incorporate multiple defrost cycles, subject to the specifications and conditions below. GE shall be required to test or rate the specified refrigerator-freezer products according to the alternate test procedure as set forth in section III, "Alternate Test Procedure."

The interim waiver applies to the following basic model groups:

CYE24T******
CFE29T******
DFE29J******

GNE26G******
GFE27G******
GFE27H******
GFE29H******
PWE23K******
PYE24K******
PYE24P******
PFE27K******
PFE29P******
PFH29P******

DOE makes decisions on waivers and interim waivers for only those models specifically set out in the petition, not future models that may be manufactured by the petitioner. GE may submit a subsequent petition for waiver and request for grant of interim waiver, as appropriate, for additional models of refrigerator-freezers for which it seeks a waiver from the DOE test procedure. In addition, DOE notes that grant of an interim waiver or waiver does not release a petitioner from the certification requirements set forth at 10 CFR part 429.

III. Alternate Test Procedure

EPCA requires that manufacturers use DOE test procedures to make representations about the energy consumption and energy consumption costs of products covered by the statute. (42 U.S.C. 6293(c)) Consistent representations are important for manufacturers to use in making representations about the energy efficiency of their products and to demonstrate compliance with applicable DOE energy conservation standards. Pursuant to its regulations applicable to waivers and interim waivers from applicable test procedures at 10 CFR 430.27, DOE will consider setting an alternate test procedure for GE in a subsequent Decision and Order.

During the period of the interim waiver granted in this notice, GE shall test the products listed above according to the test procedures for residential electric refrigerator-freezers prescribed by DOE at 10 CFR art 430, Subpart B, Appendix A1, except that, for the GE products listed above only, include:

1. In section 1, Definitions, the following definition:

"Defrost cycle type" means a distinct sequence of control whose function is to remove frost and/or ice from a refrigerated surface. There may be variations in the defrost control sequence such as the number of defrost heaters energized. Each such variation establishes a separate distinct defrost cycle type. However, defrost achieved regularly during the compressor "off" cycles by warming of the evaporator without active heat addition is not a defrost cycle type.

2. In section 4, Test Period, the following:

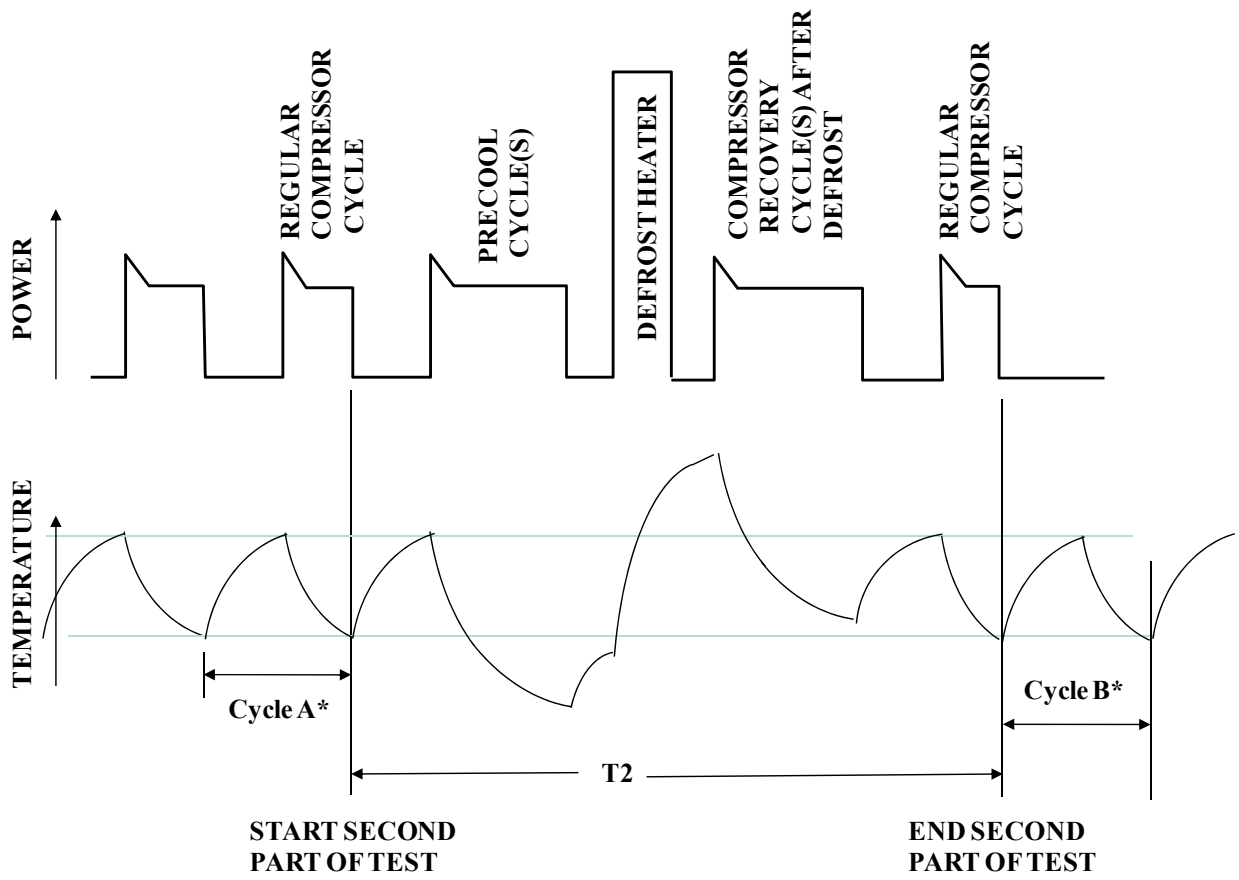
4.2.1 Long-time Automatic Defrost. If the model being tested has a long-time automatic defrost system, the two-part test described in this section may be used. The first part is a stable period of compressor operation that includes no portions of the defrost cycle, such as precooling or recovery, that is otherwise the same as the test for a unit having no defrost provisions (section 4.1). The second part is designed to capture the energy consumed during all of the events occurring with the defrost control sequence that are outside of stable operation.

4.2.1.1 Cycling Compressor System. For a system with a cycling compressor, the second part of the test starts at the termination of the last regular compressor "on" cycle. The average temperatures of the fresh food and freezer compartments measured from the termination of the previous compressor "on" cycle to the termination of the last regular compressor "on" cycle must

both be within 0.5 ˚F (0.3 ˚C) of their average temperatures measured for the first part of the test. If any compressor cycles occur prior to the defrost heater being energized that cause the average temperature in either compartment to deviate from its average temperature for the first part of the test by more than 0.5 ˚F (0.3 ˚C), these compressor cycles are not considered regular compressor cycles and must be included in the second part of the test. As an example, a "precooling" cycle, which is an extended compressor cycle that lowers the temperature(s) of one or both compartments prior to energizing the defrost heater, must be included in the second part of the test. The test period for the second part of the test ends at the termination of the first regular compressor “on” cycle after both compartment temperatures have fully recovered to their stable conditions. The average temperatures of the compartments measured from this termination of the first regular compressor “on” cycle until the termination of the next regular compressor “on” cycle must both be within 0.5 ˚F (0.3 ˚C) of their average temperatures measured for the first part of the test. See Figure 1.

Figure 1

Long-time Automatic Defrost Diagram for Cycling Compressors



***Average compartment temperature(s) during cycles A & B must be within 0.5˚F of the average temperature(s) for the first part of the test.**

4.2.4 Systems with Multiple Defrost Frequencies. This section applies to models with long-time automatic or variable defrost control with multiple defrost cycle types, such as models with single compressors and multiple evaporators in which the evaporators have different defrost frequencies. The two-part method in 4.2.1 shall be used. The second part of the method will be conducted separately for each distinct defrost cycle type.

3. In section 5, Test Measurements, the following:

5.2.1.5 Long-time or Variable Defrost Control for Systems with Multiple Defrost cycle Types. The energy consumption in kilowatt-hours per day shall be calculated equivalent to:

$$ET = (1440 \times EP1 / T1) + \sum_{i=1}^{D} [(EP2_i - (EP1 \times T2_i / T1)) \times (12 / CT_i)]$$

where:

1440 is defined in 5.2.1.1 and EP1, T1, and 12 are defined in 5.2.1.2;

i is a variable that can equal 1, 2, or more that identifies the distinct defrost cycle types applicable for the refrigerator or refrigerator-freezer;

$EP2_i$ = energy expended in kilowatt-hours during the second part of the test for defrost cycle type i;

$T2_i$ = length of time in minutes of the second part of the test for defrost cycle type i;

CT_i is the compressor run time between instances of defrost cycle type i, for long-time automatic defrost control equal to a fixed time in hours rounded to the nearest tenth of an hour, and for variable defrost control equal to

$(CT_{Li} \times CT_{Mi})/(F \times (CT_{Mi} - CT_{Li}) + CT_{Li})$;

CT_{Li} = least or shortest compressor run time between instances of defrost cycle type i in hours rounded to the nearest tenth of an hour (CT_L for the defrost cycle type with the longest compressor run time between defrosts must be greater than or equal to 6 but less than or equal to 12 hours);

CT_{Mi} = maximum compressor run time between instances of defrost cycle type i in hours rounded to the nearest tenth of an hour (greater than CT_{Li} but not more than 96 hours);

For cases in which there are more than one fixed CT value (for long-time defrost models) or more than one CT_M and/or CT_L value (for variable defrost models) for a given defrost cycle type, an average fixed CT value or average CT_M and CT_L values shall be selected for this cycle type so that 12 divided by this value or values is the frequency of

occurrence of the defrost cycle type in a 24 hour period, assuming 50% compressor run time.

F = default defrost energy consumption factor, equal to 0.20.

For variable defrost models with no values for CT_{Li} and CT_{Mi} in the algorithm, the default values of 6 and 96 shall be used, respectively.

D is the total number of distinct defrost cycle types.

IV. Summary and Request for Comments

Through today's notice, DOE announces receipt of GE's petition for waiver from certain parts of the test procedure that apply to clothes washers and grants an interim waiver to GE. DOE is publishing GE's petition for waiver in its entirety pursuant to 10 CFR 430.27(b)(1)(iv). The petition contains confidential information. The petition includes a suggested alternate test procedure to measure the energy consumption of refrigerator-freezer basic models that incorporate multiple defrost cycles.

DOE solicits comments from interested parties on all aspects of the petition. Pursuant to 10 CFR 430.27(b)(1)(iv), any person submitting written comments to DOE must also send a copy of such comments to the petitioner. The contact information for the petitioner is: David N. Baker, Counsel, Government Regulations & Regulatory Compliance, GE Appliances, Appliance Park, AP2-225, Louisville, KY 40225. All submissions received must include the agency name and case number for this proceeding. Submit electronic comments in WordPerfect, Microsoft Word, Portable Document Format (PDF), or text (American Standard Code for Information Interchange (ASCII)) file format and avoid the use of special characters or any form of

encryption. Wherever possible, include the electronic signature of the author. DOE does not accept telefacsimiles (faxes).

Issued in Washington, DC, on February 7, 2012

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Kathleen B. Hogan
Deputy Assistant Secretary for Energy Efficiency
Energy Efficiency and Renewable Energy

GE Appliances

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PUBLIC DISCLOSURE VERSION

January 26, 2012

Dr. Henry Kelly
Acting Assistant Secretary
Energy Efficiency and Renewable Energy
U.S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Re: Petition for Waiver and Application for Interim Waiver
DOE Test Procedures for Refrigerator-Freezers with Multiple Defrost Cycles

Dear Assistant Secretary Kelly:

GE Appliances, a business unit of General Electric Company, (''GE'') respectfully submits this Petition for Waiver ("Petition") and Application for Interim Waiver ("Application") to the Department of Energy (''DOE'' or the "Department'') from test procedures for single compressor refrigerator-freezers with multiple defrost cycles that are manufactured by GE.

Authority

10 CFR 430.27 (a)(1) allows a person to seek a waiver from the test procedure requirements for a particular basic model for a covered consumer product when (1) The petitioner's basic model contains one or more design characteristics that prevents testing according to the prescribed test procedure, or (2) when prescribed test procedures may evaluate the basic model in a manner so unrepresentative of its true energy consumption characteristics as to provide materially inaccurate comparative data.

10 CFR 430.27 (a)(2) also provides for a petitioner to file an application for Interim Waiver of the applicable test procedure requirements. Petitioners make such request on the grounds

that they will experience economic hardship if the interim waiver is denied, as competitive disadvantage will otherwise likely result. Additional and/or alternative grounds for the Assistant Secretary to grant an interim waiver are if it appears likely that the petitioned-for waiver will be granted and/or it would be desirable for public policy reasons to grant immediate relief pending a determination on the petition for waiver. 10 CFR 430.27 (g).

The current test procedure prescribed in Appendix A1 to Subpart B of Part 430 (''Appendix A1'') does not adequately provide a way for GE to accurately represent the energy consumption of its refrigerator-freezers with multiple defrost cycles. See 75 FR 78810. DOE so acknowledged when it granted a waiver for similar products to Samsung Electronics America, Inc. ("Samsung") on January 10, 2012 [1] and when it issued its Final Rule on the 2014 test procedures ("Final Rule"), published on January 25, 2012.[2]

GE is planning to launch [redacted] new refrigerator-freezers with multiple defrost cycles. It must, therefore, seek a waiver from current test procedures from the Department. GE believes that a grant of Interim Waiver and Waiver is warranted. GE plans refrigerator-freezer models that will utilize multiple defrost cycles. Without an Interim Waiver, GE will face economic hardship due to the inability to market products that were designed and manufactured with a [redacted] investment. Moreover, unless GE is able to sell refrigerators that compete with the Samsung models and those of other manufacturers, GE will lose market share and revenue and consumers' purchasing options will be limited.

Alternative Test Procedure

10 CFR 430.27 (b)(1)(iii) requires petitioners to propose an alternate test procedure to evaluate in a representative manner the energy consumption characteristics of the basic model. GE therefore submits that the 2014 test procedures, as amended by DOE in its Final Rule, is the appropriate alternative test procedure to use in measuring its refrigerator-freezers with multiple defrost cycles.[3] GE also notes that DOE effectively approved the same relief to Samsung in its recent grant of Samsung's Petition for Waiver.[4]

[1] Case Nos. RF-018 and RF-019 Samsung Electronics America, Inc. 77 FR 1474 (January 10, 2012).

[2] Docket No. EERE-2009-BT-TP-0003, 77 FR 3559 (January 25, 2012).

[3] *Id. See also* 75 FR 78810 *et seq.*

[4] The waiver granted to Samsung is based on the current test procedure (10 CFR part 430, Subpart B, Appendix A1) amended so as to effectively incorporate the 2014 test procedure. 77 FR at 1476-1478.
See also 76 FR 16760 (March 25, 2011) and 76 FR 54456 (September 1, 2011), Granting of Applications for Interim Waiver of Samsung.

GE's Petition and Application cover the following basic models[5,6]:

CYE24T******
CFE29T******
DFE29J******
GNE26G******
GFE27G******
GFE27H******
GFE29H******
PWE23K******
PYE24K******
PYE24P******
PFE27K******
PFE29P******
PFH29P******

Conclusion

Based on the above, GE requests that the Assistant Secretary expeditiously grant GE's Petition for Waiver and Application for Interim Waiver. Relief is warranted to enable GE to market its new products and to compete with a manufacturer that has been granted the same relief for similar products.

Please feel free to contact me if you have any questions regarding this Petition for Waiver and Application for Interim Waiver.

Sincerely,

David N. Baker
Counsel, Government Relations
& Regulatory Compliance
GE Appliances

[5] On February 16, 2011, the Office of Hearings and Appeals (OHA) issued a decision granting an Application for Exception filed by GE to establish an energy efficiency standard for refrigerators of the type covered by this Petition and Application. OHA Case No. TEE-0074.

[6] Asterisks, or wild cards, denote color or other features that do not affect energy performance.

[FR Doc. 2012-3371 Filed 02/13/2012 at 8:45 am; Publication Date: 02/14/2012]