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**[6450-01-P]**

**DEPARTMENT OF ENERGY**

**10 CFR Part 430**

**[Docket Number EERE–2011-BT-STD-0043]**

**RIN 1904-AC51**

**Energy Conservation Standards and Test Procedure for Miscellaneous  
Refrigeration Products: Notice of Data Availability; Request for Information**

**AGENCY:** Office of Energy Efficiency and Renewable Energy, Department of Energy.

**ACTION:** Notice of data availability (NODA); request for information (RFI).

**SUMMARY:** The U.S. Department of Energy (DOE) is currently weighing whether and how to regulate the energy efficiency of certain refrigeration products such as wine chillers and beverage centers (collectively, “coolers”). These “miscellaneous refrigeration products” (“MREFs”) include coolers that do not operate using a conventional compressor/condenser-based system, particularly those products that use a thermoelectric-based refrigeration system. In support of this effort, DOE has collected and analyzed a variety of data to better understand the composition of the MREF industry and its products. To ensure its understanding of this market and its products, DOE is

requesting additional information from the public related to the manufacturers of thermoelectric-based MREFs.

**DATES:** DOE will accept comments, data, and information regarding the NODA no later than **INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER**. Details regarding the data referenced in this notice are provided in docket EERE–2011-BT-STD-0043, available at [www.regulations.gov](http://www.regulations.gov).

**ADDRESSES:** The docket, EERE–2011-BT-STD-0043, is available for review at [www.regulations.gov](http://www.regulations.gov), including **Federal Register** notices, comments, and other supporting documents or materials. All documents in the docket are listed in the [www.regulations.gov](http://www.regulations.gov) index. However, not all documents listed in the index may be publicly available, such as information that is exempt from public disclosure.

A link to the docket web page can be found at:

<http://www.regulations.gov/#!docketDetail;D=EERE-2011-BT-STD-0043>. The [www.regulations.gov](http://www.regulations.gov) web page contains instructions on how to access all documents in the docket, including public comments. For further information on how to review the docket, contact Ms. Brenda Edwards at (202) 586-2945 or by email:

[Brenda.Edwards@ee.doe.gov](mailto:Brenda.Edwards@ee.doe.gov).

**FOR FURTHER INFORMATION CONTACT:**

Direct requests for additional information may be sent to Mr. Joseph Hagerman, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Program, EE-2J, 1000 Independence Avenue, SW., Washington, DC 20585-0121. Telephone: 202-586-4549. E-mail: [Joseph.Hagerman@ee.doe.gov](mailto:Joseph.Hagerman@ee.doe.gov)

In the office of the General Counsel, contact Mr. Michael Kido, Esq., U.S. Department of Energy, Office of General Counsel, GC-33, 1000 Independence Avenue, SW., Washington, DC 20585-0121, (202) 586-8145, [Michael.Kido@hq.doe.gov](mailto:Michael.Kido@hq.doe.gov)

## **Table of Contents**

- I. Miscellaneous Refrigeration Products -- Background
- II. Results and Analyses Summary
- III. Request for Information and Specific Issues for which DOE is seeking comment
- IV. Public Participation

## **I. Miscellaneous Refrigeration Products -- Background**

In November 2011, the Department of Energy ("DOE") began a process to consider whether to include as covered products and establish energy conservation standards for certain types of refrigeration products that largely fall outside of DOE's

regulations pertaining to refrigerators, refrigerator-freezers, and freezers.<sup>1</sup> See 76 FR 69147 (November 8, 2011) (Notice of Proposed Determination) and 10 CFR 430.32(a) (setting out energy conservation standards for each class of refrigerator, refrigerator-freezer, and freezer currently regulated by DOE). Chief among the products garnering DOE's attention were products such as wine chillers ("coolers") -- which typically provide storage temperatures exceeding those used in those products already addressed by DOE's regulations. Cooling the storage areas of these products can be accomplished using different methods. One method is to use a conventional compressor/condenser-based system that feeds cold air into the internal storage compartment of the product. Another method -- thermoelectric-based cooling -- relies on the use of a solid-state heat pump that creates a cooling effect when electric current passes through two conductors. Under this approach, a temperature difference is created between the junction of two different types of materials as voltage is applied to the free ends of each material. Both of these technologies were considered in DOE's approach to regulating miscellaneous refrigeration equipment.

Pursuant to the Energy Policy and Conservation Act of 1975, as amended ("EPCA"), DOE may add a new product to its scope of regulatory coverage when certain

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<sup>1</sup> For a narrow sliver of products that combined a wine storage compartment with a fresh food or freezer compartment ("combination coolers"), DOE had previously issued guidance indicating that these products may fall within the electric refrigerator and electric refrigerator-freezer definitions. See Refrigerators and Freezers Guidance (February 10, 2011) (discussing the treatment of "hybrid" refrigeration products -- i.e., combination coolers).

criteria are met. See 42 U.S.C. 6292(b) (laying out specific criteria to satisfy when classifying a consumer product not already statutorily-covered as a covered product). Similarly, DOE may set energy conservation standards for those newly covered products if additional criteria are met. See 42 U.S.C. 6295(l) (detailing additional requirements to meet prior to prescribing standards for newly covered products). As part of its continuing efforts to improve consumer product and industrial equipment energy efficiency, DOE is considering including miscellaneous refrigeration products ("MREFs"), such as coolers that do not use a compressor/condenser-based system, to its list of products for regulatory coverage authority and to set energy conservation standards for them.

To help better inform its potential regulation of these items, DOE announced its intention to establish a negotiated rulemaking working group that would operate under the Appliance Standards and Rulemaking Federal Advisory Committee ("ASRAC") with the purpose of exploring possible energy efficiency requirements for MREFs. See 80 FR 17355 (April 1, 2015). DOE solicited the public for participants to help serve on the MREF Working Group and identified various groups who would be significantly affected by a rulemaking that would address MREF energy efficiency. See *id.* at 17357. The Working Group ultimately reached consensus among its members on a variety of issues, including the potential scope of coverage, applicable definitions, test procedure details, and energy conservation standards that would apply to these products. This effort, which was conducted in accordance with the Federal Advisory Committee Act (5 U.S.C. App.

2) and the Negotiated Rulemaking Act (5 U.S.C. 561-570), produced a consensus agreement addressing the above issues.

## **II. Results and Analyses Summary**

The consensus agreement reached by the various participating parties was based on research and testing data related to MREF products. The data from this effort were used to create a comprehensive technical analysis that the Working Group used to develop the recommendations in its consensus agreement. The agreement was prepared for submission to ASRAC, which would then weigh its merits for approval for further consideration by DOE.

Among the issues considered by the Working Group were the potential impacts related to manufacturers of thermoelectric-based MREF products. While DOE believes that the MREF Working Group, which included one manufacturer who currently sells thermoelectric-based products and other manufacturers who have sold thermoelectric coolers in the past, comprised a group of persons that are fairly representative of relevant points of view, including manufacturers of thermoelectric-based MREF products, DOE is seeking comment and any additional information regarding the nature of these manufacturers, and the marketing nuances and other issues specifically facing the manufacturers of thermoelectric-based MREF products.

### **III. Request for Information and Specific Issues for which DOE is Seeking**

#### **Comment**

DOE welcomes comments on all aspects of this notice of data availability and request for information. DOE is particularly interested in receiving comments from interested parties on the following data and questions related to the manufacturers of thermoelectric-based MREF products:

- 1) The number, location, size, product offering, and business structure of the original equipment manufacturers ("OEMs") producing thermoelectric coolers for sale in the U.S. market.
- 2) The sales channels of the thermoelectric cooler OEMs serving the U.S. market. Which of these OEMs sell products directly to the U.S. market and which serve the U.S. market indirectly through private labelers?
- 3) The U.S. market shares (in terms of total shipments) of both the thermoelectric cooler private labelers and OEMs.
- 4) Using a database of models generated from publicly available information (including existing product databases and manufacturer and vendor websites), DOE identified over 30 brands of cooler models offered for sale in the U.S. that utilize thermoelectric refrigeration systems -- all of which appear to be manufactured overseas. In DOE's view, the current market is competitive with no one dominant player and includes such private labelers as Vinotemp, Wine Enthusiast, Koolatron, and Haier. DOE seeks comment on whether this description of the thermoelectric cooler market is accurate and whether



using the number of cooler models available on the U.S. market can be used as a proxy for market share for the cooler industry. DOE considered thermoelectric coolers when generating engineering analysis information included in the preliminary analysis (79 FR 71705 (Dec. 3, 2014)) and updated its analysis documents based on the Working Group discussions. (DOE's engineering analysis documents developed in support of the Working Group meetings are available at <http://www.regulations.gov> in Docket ID EERE-2011-BT-STD-0043.) These analyses indicated that thermoelectric cooler energy efficiency performance could be improved to a level that would be on-par (or exceed) the efficiency levels recommended by the Working Group by using a variety of options including, but not limited to, adding cabinet insulation, incorporating heat pipes, using solid rather than glass doors, or using glass or other translucent door material with higher insulating values. DOE requests comment on these engineering results and related estimates.

- 5) DOE seeks comment as to whether there are any substantive issues with relying on information furnished by private labelers who purchase thermoelectric-based MREFs for purposes of DOE's manufacturer impacts analysis. If there are no issues with relying on this information (or its source), please so state.
- 6) DOE also seeks any additional feedback relating to its analyses that it is making available as part of this NODA as it relates to thermoelectric manufacturers.

## **IV. Public Participation**

### **Submission of Comments**

DOE welcomes comments on all aspects of this NODA and on other relevant issues that participants believe would affect the eventual test procedures and energy conservation standards applicable to MREF products. Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at <http://www.regulations.gov>. Follow the instructions for submitting comments. Alternatively, interested persons may submit comments, identified by docket number EERE-2011-BT-STD-0043, by any of the following methods:

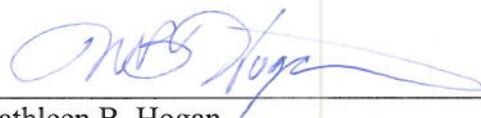
- E-mail: to [WineChillers-2011-STD-0043@ee.doe.gov](mailto:WineChillers-2011-STD-0043@ee.doe.gov). Include EERE-2011-BT-STD-0043 in the subject line of the message.
- Mail: Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Office, Mailstop EE-5B, 1000 Independence Avenue, SW., Washington, DC 20585-0121. Phone: (202) 586-2945. Please submit one signed paper original.
- Hand Delivery/Courier: Ms. Brenda Edwards, U.S. Department of Energy, Building Technologies Program, 6th Floor, 950 L'Enfant Plaza, SW., Washington, DC 20024. Phone: (202) 586-2945. Please submit one signed paper original.

All submissions received must include the agency name and docket number or RIN for this rulemaking.

After the close of the comment period, DOE will begin reviewing the public comments and making any necessary adjustments to its standards analysis supporting its rulemaking proceeding concerning potential energy conservation standards for MREF products.

DOE considers public participation to be a very important part of the process for developing test procedures and energy conservation standards. DOE actively encourages the participation and interaction of the public during the comment period in each stage of the rulemaking process. Interactions with and between members of the public provide a balanced discussion of the issues and assist DOE in the rulemaking process. Anyone who wishes to be added to the DOE mailing list to receive future notices and information about this rulemaking should contact Mr. Joseph Hagerman at (202) 586-4549, or via e-mail at [joseph.hagerman@ee.doe.gov](mailto:joseph.hagerman@ee.doe.gov).

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