DEPARTMENT OF ENERGY

[Case Number 2020-003; EERE-2020-BT-WAV-0020]

Energy Conservation Program: Notification of Petition for Waiver of Hussmann Corporation from the Department of Energy Commercial Refrigerators, Freezers and Refrigerator-Freezers Test Procedure and Notification of Grant of Interim Waiver


ACTION: Notification of petition for waiver and grant of an interim waiver; request for comments.

SUMMARY: This notification announces receipt of and publishes a petition for waiver and interim waiver from Hussmann Corporation (“Hussmann”), which seeks a waiver for specified Commercial Refrigerator, Freezer, and Refrigerator-Freezer (“CRE”) basic models from the U.S. Department of Energy (“DOE”) test procedure used for determining the energy consumption of CRE. DOE also gives notification of an Interim Waiver Order that requires Hussmann to test and rate the specified CRE basic models in accordance with the alternate test procedure set forth in the Interim Waiver Order. DOE solicits comments, data, and information concerning Hussmann’s petition, its suggested alternate test procedure, and the alternate test procedure required under the Interim Waiver Order so as to inform DOE’s final decision on Hussmann’s waiver request.
DATES: Written comments and information are requested and will be accepted on or before [INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at https://www.regulations.gov. Alternatively, interested persons may submit comments, identified by docket number EERE-2020-BT-WAV-0020, by any of the following methods:

- E-mail: to HussmannCRE2020WAV0020@ee.doe.gov. Include docket number EERE-2020-BT-WAV-0020 in the subject line of the message.

No telefacsimilies (“faxes”) will be accepted. For detailed instructions on submitting comments and additional information on this process, see the “SUPPLEMENTARY INFORMATION” section of this document.

Although DOE has routinely accepted public comment submissions through a variety of mechanisms, including postal mail and hand delivery/courier, the Department has found it necessary to make temporary modifications to the comment submission process in light of the ongoing Covid-19 pandemic. DOE is currently suspending receipt of public comments via postal mail and hand delivery/courier. If a commenter finds that this change poses an undue hardship, please contact Appliance Standards Program staff at (202) 586-1445 to discuss the need for alternative arrangements. Once the Covid-19 pandemic health emergency is resolved, DOE anticipates resuming all of its regular options for public comment submission, including postal mail and hand delivery/courier.
Docket: The docket, which includes Federal Register notices, comments, and other supporting documents/materials, is available for review at https://www.regulations.gov. All documents in the docket are listed in the https://www.regulations.gov index. However, some documents listed in the index, such as those containing information that is exempt from public disclosure, may not be publicly available.

The docket web page can be found at https://www.regulations.gov/docket?D=EERE-2020-BT-WAV-0020. The docket web page contains instruction on how to access all documents, including public comments, in the docket. See the “SUPPLEMENTARY INFORMATION” section for information on how to submit comments through https://www.regulations.gov.

FOR FURTHER INFORMATION CONTACT:

Ms. Lucy deButts, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, Mailstop EE-5B, 1000 Independence Avenue, SW., Washington, DC 20585-0121. E-mail: AS_Waiver_Request@ee.doe.gov.

Mr. Pete Cochran, U.S. Department of Energy, Office of the General Counsel, Mail Stop GC-33, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC 20585-0103. Telephone: (202) 586-9496. E-mail: Peter.Cochran@Hq.Doe.Gov

SUPPLEMENTARY INFORMATION:

DOE is publishing Hussmann’s petition for waiver, pursuant to 10 CFR 431.401(b)(1)(iv).\(^1\)\(^2\) DOE invites all interested parties to submit in writing by [INSERT DATE]

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1 The petition did not identify any of the information contained therein as confidential business information.

2 On December 11, 2020, DOE published an amendment to 10 CFR 431.401 regarding the processing of petitions for an interim waiver, which became effective beginning January 11, 2021. The subject petition was received prior to the effective date of that amendment and therefore is being processed pursuant to the regulation in effect at the
30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], comments and information on all aspects of the petition, including the alternate test procedure. Pursuant to 10 CFR 431.401(d), 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 Daniel C. Conrad, Ph.D., 314-291-200, 12999 St. Charles Rock Road, Bridgeton, MO 63044.

Submitting comments via https://www.regulations.gov. The https://www.regulations.gov web page will require you to provide your name and contact information. Your contact information will be viewable to DOE Building Technologies staff only. Your contact information will not be publicly viewable except for your first and last names, organization name (if any), and submitter representative name (if any). If your comment is not processed properly because of technical difficulties, DOE will use this information to contact you. If DOE cannot read your comment due to technical difficulties and cannot contact you for clarification, DOE may not be able to consider your comment.

However, your contact information will be publicly viewable if you include it in the comment or in any documents attached to your comment. Any information that you do not want to be publicly viewable should not be included in your comment, nor in any document attached to your comment. If this instruction is followed, persons viewing comments will see only first and last names, organization names, correspondence containing comments, and any documents submitted with the comments.

Do not submit to https://www.regulations.gov information for which disclosure is restricted by statute, such as trade secrets and commercial or financial information (hereinafter time of receipt. References to 10 CFR 430.27 in this notification refer to the 10 CFR 431.401 in the 10 CFR parts 200 to 499 edition revised as of January 1, 2021.
referred to as Confidential Business Information (“CBI”). Comments submitted through https://www.regulations.gov cannot be claimed as CBI. Comments received through the website will waive any CBI claims for the information submitted. For information on submitting CBI, see the Confidential Business Information section.

DOE processes submissions made through https://www.regulations.gov before posting. Normally, comments will be posted within a few days of being submitted. However, if large volumes of comments are being processed simultaneously, your comment may not be viewable for up to several weeks. Please keep the comment tracking number that https://www.regulations.gov provides after you have successfully uploaded your comment.

Submitting comments via email. Comments and documents submitted via email also will be posted to https://www.regulations.gov. If you do not want your personal contact information to be publicly viewable, do not include it in your comment or any accompanying documents. Instead, provide your contact information on a cover letter. Include your first and last names, email address, telephone number, and optional mailing address. The cover letter will not be publicly viewable as long as it does not include any comments.

Include contact information each time you submit comments, data, documents, and other information to DOE. Faxes will not be accepted.

Comments, data, and other information submitted to DOE electronically should be provided in PDF (preferred), Microsoft Word or Excel, WordPerfect, or text (ASCII) file format. Provide documents that are not secured, written in English and free of any defects or viruses. Documents should not contain special characters or any form of encryption and, if possible, they should carry the electronic signature of the author.
Campaign form letters. Please submit campaign form letters by the originating organization in batches of between 50 to 500 form letters per PDF or as one form letter with a list of supporters’ names compiled into one or more PDFs. This reduces comment processing and posting time.

Confidential Business Information. According to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email two well-marked copies: one copy of the document marked confidential including all the information believed to be confidential, and one copy of the document marked “non-confidential” with the information believed to be confidential deleted. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

It is DOE’s policy that all comments may be included in the public docket, without change and as received, including any personal information provided in the comments (except information deemed to be exempt from public disclosure).
I. Background and Authority

The Energy Policy and Conservation Act, as amended ("EPCA"),\(^3\) authorizes the U.S. Department of Energy ("DOE") to regulate the energy efficiency of a number of consumer products and certain industrial equipment. (42 U.S.C. 6291–6317) Title III, Part C\(^4\) of EPCA established the Energy Conservation Program for Certain Industrial Equipment, which sets forth a variety of provisions designed to improve energy efficiency for certain types of industrial equipment. This equipment includes Commercial Refrigerators, Freezers and Refrigerator-Freezers ("commercial refrigeration equipment" or "CRE"), the focus of this document. (42 U.S.C. 6311(1)(E))

The energy conservation program under EPCA consists essentially of four parts: (1) testing, (2) labeling, (3) Federal energy conservation standards, and (4) certification and enforcement procedures. Relevant provisions of EPCA include definitions (42 U.S.C. 6311), energy conservation standards (42 U.S.C. 6313), test procedures (42 U.S.C. 6314), labeling provisions (42 U.S.C. 6315), and the authority to require information and reports from manufacturers (42 U.S.C. 6316; 42 U.S.C. 6296).

The Federal testing requirements consist of test procedures that manufacturers of covered equipment must use as the basis for: (1) certifying to DOE that their equipment complies with the applicable energy conservation standards adopted pursuant to EPCA (42 U.S.C. 6316(a); 42 U.S.C. 6295(s)), and (2) making representations about the efficiency of that equipment (42 U.S.C. 6295(s)).

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\(^3\) All references to EPCA in this document refer to the statute as amended through the Energy Act of 2020, Public Law 116-260 (Dec. 27, 2020).

\(^4\) For editorial reasons, upon codification in the U.S. Code, Part C was redesignated as Part A-1.
U.S.C. 6314(d)). Similarly, DOE must use these test procedures to determine whether the covered equipment complies with relevant standards promulgated under EPCA. (42 U.S.C. 6316(a); 42 U.S.C. 6295(s))

Under 42 U.S.C. 6314, EPCA sets forth the criteria and procedures DOE is required to follow when prescribing or amending test procedures for covered equipment. EPCA requires that any test procedures prescribed or amended under this section must be reasonably designed to produce test results which reflect the energy efficiency, energy use or estimated annual operating cost of covered equipment during a representative average use cycle and requires that test procedures not be unduly burdensome to conduct. (42 U.S.C. 6314(a)(2)) The test procedure for CRE is contained in the Code of Federal Regulations (“CFR”) at 10 CFR part 431, subpart C, appendix B (“Appendix B”), “Amended Uniform Test Method for the Measurement of Energy Consumption of Commercial Refrigerators, Freezers, and Refrigerator-freezers.”

Under 10 CFR 431.401, any interested person may submit a petition for waiver from DOE’s test procedure requirements. DOE will grant a waiver from the test procedure requirements if DOE determines either that the basic models for which the waiver was requested contains a design characteristic that prevents testing of the basic models according to the prescribed test procedures, or that the prescribed test procedures evaluate the basic models in a manner so unrepresentative of its true energy consumption characteristics as to provide materially inaccurate comparative data. 10 CFR 431.401(f)(2). A petitioner must include in its petition any alternate test procedures known to the petitioner to evaluate the performance of the equipment type in a manner representative of the energy consumption characteristics of the basic

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5 On December 11, 2020, DOE published an amendment to 10 CFR 431.401 regarding the processing of petitions for an interim waiver. The subject petition was received prior to the effective date of that amendment and therefore is being processed pursuant to the regulation in effect at the time of receipt. References to 10 CFR 430.27 in this notification refer to the 10 CFR 431.401 in the 10 CFR parts 200 to 499 edition revised as of January 1, 2021.
models. 10 CFR 431.401(b)(1)(iii). DOE may grant the waiver subject to conditions, which may include adherence to alternate test procedures specified by DOE. 10 CFR 431.401(f)(2).

As soon as practicable after the granting of any waiver, DOE will publish in the Federal Register a notice of proposed rulemaking to amend its regulations so as to eliminate any need for the continuation of such waiver. 10 CFR 431.401(l). As soon thereafter as practicable, DOE will publish in the Federal Register a final rule to that effect. Id.

The waiver process also provides that DOE may grant an interim waiver if it appears likely that the underlying petition for waiver will be granted and/or if DOE determines that it would be desirable for public policy reasons to grant immediate relief pending a determination on the underlying petition for waiver. 10 CFR 431.401(e)(2). Within one year of issuance of an interim waiver, DOE will either: (i) publish in the Federal Register a determination on the petition for waiver; or (ii) publish in the Federal Register a new or amended test procedure that addresses the issues presented in the waiver. 10 CFR 431.401(h)(1).

When DOE amends the test procedure to address the issues presented in a waiver, the waiver will automatically terminate on the date on which use of that test procedure is required to demonstrate compliance. 10 CFR 431.401(h)(2).

II. Hussmann’s Petition for Waiver and Interim Waiver

On May 12, 2020, Hussmann filed a petition for waiver and interim waiver from the test procedure for CRE set forth at Appendix B. Hussmann described the basic models for which it is requesting a waiver as “Smart Exchange Lockers” that are intended for short-term storage of

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6 The specific basic models of commercial refrigerators, freezers and refrigerator-freezers for which Hussmann petitioned for a waiver and interim waiver are Hussmann branded low-temperature basic models SLOL6, SLOL8,
temperature-controlled products as part of an e-commerce fulfillment solution, which operate at
low temperatures. Hussmann claimed that the refrigerated compartments in the specified basic
models are designed for loading and retrieving product a limited number of times per day and are
not designed or used as a traditional merchandiser where stored product may be exposed to
costant door openings throughout the day.

Hussmann noted that Appendix B requires door openings to be conducted per section 7.2
of American Society of Heating, Refrigerating and Air-Conditioning Engineers Standard 72-
2005, Method of Testing Commercial Refrigerators and Freezers (“ASHRAE Standard 72-
2005”). Specifically, ASHRAE 72-2005 section 7.2 requires that each door be in the fully open
position for six seconds, six times per hour for eight consecutive hours, and that each door be
opened sequentially, one at a time. Hussmann noted that the required number of door openings
in the current procedure does not anticipate the usage profile and application of the basic models
for which Hussmann is requesting a waiver and thus overstates the energy consumption.
Hussmann added that ASHRAE72-2005 is intended for traditional refrigerated merchandisers
and the consumer behavior at a grocery store or convenience store. Hussmann stated that their
Smart Exchange Lockers are designed for short-term storage and that their usage profile is
limited by the time delay from the consumer schedule and retail delivery of product and the
consumer arrival to collect the order. Hussmann further stated that the unit doors require use of a
code or personal mobile device to unlock the compartment(s) containing the consumer's
products.

Hussmann also requests an interim waiver from the existing DOE test procedure. DOE
will grant an interim waiver if it appears likely that the petition for waiver will be granted, and/or

SLOL10, SLIL6, SLIL8, and SLIL10. These basic model names were provided by Hussmann in its May 12, 2020
petition.
if DOE determines that it would be desirable for public policy reasons to grant immediate relief pending a determination of the petition for waiver. 10 CFR 431.401(e)(2).

Hussmann asserts that absent an interim waiver, the stated CRE basic models cannot be tested and rated for daily energy consumption on a basis representative of their actual daily energy consumption characteristics. Hussmann claimed that the current door opening procedure, as is required by DOE test procedure, is not a representative test of the specified basic models due to their less-frequent door openings during typical use.

III. Requested Alternate Test Procedure

EPCA requires that manufacturers use DOE test procedures when making representations about the energy consumption and energy consumption costs of covered equipment. (42 U.S.C. 6314(d)) Consistency is important when making representations about the energy efficiency of covered equipment, including when demonstrating compliance with applicable DOE energy conservation standards. Pursuant to 10 CFR 431.401, and after consideration of public comments on the petition, DOE may establish in a subsequent Decision and Order an alternate test procedure for the basic models addressed by the Interim Waiver Order.

Hussmann seeks to use an alternate test procedure to test and rate specific CRE basic models. Hussmann specifically requests to test the specified basic models with the following alternate door opening requirements:

Open each door for 8 seconds, every 2 hours, for 10 consecutive hours. (6 door cycles) (3 "load" and "unload" cycles) > Stock (load) + Retrieve (un-load) ~ Cycle (turn).

The alternate test procedure proposed in Hussmann’s petition also included a sentence stating that door openings shall start 3 hours after concluding stabilization period. In general, this instruction would be expected for testing.
Hussmann noted that the requested alternate procedure consists of the door opening duration, frequency, and period requirements in the Decision and Order granted to ITW Food Equipment Group, LCC, on September 12, 2018 for CRE intended for use in similar applications. See 83 FR 46148. Additionally, Hussmann stated that it conducted beta testing from which it concluded that the requested alternate approach is an accurate representation of how the specified basic models are being used in the field.

IV. Interim Waiver Order

DOE has reviewed Hussmann’s application for an interim waiver and the alternate test procedure requested by Hussmann. Based on this review, the alternate test procedure, with the minor changes discussed in this section, appears to allow for the accurate measurement of the energy consumption of the specified basic models, while alleviating the testing problems associated with Hussmann’s implementation of CRE testing for these basic models. DOE has determined that the alternate test procedure requested by Hussmann is appropriate because the identified basic models are designed for limited access short-term storage of pre-purchased items for consumer pickup and have a different usage pattern when compared to a commercial refrigerator or freezer. Consequently, DOE has determined that Hussmann’s petition for waiver likely will be granted. Furthermore, DOE has determined that it is desirable for public policy reasons to grant Hussmann immediate relief pending a determination of the petition for waiver.

units that do not have automatic defrost. In a follow-up communication with DOE on July 8, 2020 (available at https://www.regulations.gov/docket?D=EERE-2020-BT-WAV-0020), Hussmann stated that the basic models at issue have timed (i.e., automatic) defrost cycles and that they are not seeking relief from the existing ASHRAE 72-2005 requirement that the door opening period start 3 hours after the start of a defrost period.
DOE has modified the requested test approach to more clearly state the door opening requirements and to explicitly include the existing test procedure requirement to open each door sequentially, one at a time.

For the reasons stated, it is ORDERED that:

(1) Hussmann must test and rate the following CRE basic models with the alternate test procedure set forth in paragraph (2).

<table>
<thead>
<tr>
<th>Brand</th>
<th>Basic Model Number</th>
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<tbody>
<tr>
<td>Hussmann</td>
<td>SLOL6</td>
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<tr>
<td>Hussmann</td>
<td>SLOL8</td>
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<tr>
<td>Hussmann</td>
<td>SLOL10</td>
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<td>Hussmann</td>
<td>SLIL6</td>
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<td>Hussmann</td>
<td>SLIL8</td>
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<tr>
<td>Hussmann</td>
<td>SLIL10</td>
</tr>
</tbody>
</table>

(2) The alternate test procedure for the Hussmann basic models identified in paragraph (1) of this Interim Waiver Order is the test procedure for CRE prescribed by DOE at 10 CFR part 431, subpart C, appendix B, except that in section 7.2 of ASHRAE Standard 72-2005, the door openings shall be as specified. All other requirements of Appendix B and DOE’s regulations, including the requirement that the door opening period start 3 hours after the start of a defrost period, remain applicable.

Open each door to the fully open position for 8 seconds, once every 2 hours, for 6 door-opening cycles. Each door shall be opened sequentially, one at a time.

(3) Representations. Hussmann may not make representations about the energy use of a basic model listed in paragraph (1) for compliance, marketing, or other purposes unless that basic
model has been tested in accordance with the provisions set forth in this alternate test procedure and such representations fairly disclose the results of such testing.

(4) This Interim Waiver Order shall remain in effect according to the provisions of 10 CFR 431.401.

(5) This Interim Waiver Order is issued on the condition that the statements, representations, test data, and documents provided by Hussmann are valid. If Hussmann makes any modifications to the controls or configurations of a basic model subject to this Interim Waiver Order, such modifications will render the waiver invalid with respect to that basic model, and Hussmann will either be required to use the current Federal test method or submit a new application for a test procedure waiver. DOE may rescind or modify this waiver at any time if it determines the factual basis underlying the petition for the Interim Waiver Order is incorrect, or the results from the alternate test procedure are unrepresentative of the basic model’s true energy consumption characteristics. 10 CFR 431.401(k)(1). Likewise, Hussmann may request that DOE rescind or modify the Interim Waiver Order if Hussmann discovers an error in the information provided to DOE as part of its petition, determines that the interim waiver is no longer needed, or for other appropriate reasons. 10 CFR 431.401(k)(2).

(6) Issuance of this Interim Waiver Order does not release Hussmann from the applicable requirements set forth at 10 CFR part 429.

DOE makes decisions on waivers and interim waivers for only those basic models specifically set out in the petition, not future models that may be manufactured by the petitioner. Hussmann may submit a new or amended petition for waiver and request for grant of interim waiver, as appropriate, for additional basic models of CRE. Alternatively, if appropriate,
Hussmann may request that DOE extend the scope of a waiver or an interim waiver to include additional basic models employing the same technology as the basic model(s) set forth in the original petition consistent with 10 CFR 431.401(g).

**Signing Authority**

This document of the Department of Energy was signed on July 22, 2021, by Kelly Speakes-Backman, Principal Deputy Assistant Secretary and Acting Assistant Secretary for Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the *Federal Register*.


*Treena V. Garrett,*  
*Federal Register Liaison Officer,*  
*U.S. Department of Energy*
May 12, 2020

John Cymbalsky  
U.S. Department of Energy  
Building Technologies Office  
Test Procedure Waiver  
1000 Independence Avenue SW  
Mailstop EE-5B  
Washington, DC 20585-0121

Re: Petition of Hussmann Corporation for Waiver of Test Procedure for Commercial Refrigeration Equipment

Dear Mr. Cymbalsky:

Hussmann Corporation submits this Petition for Waiver and Application for Interim Waiver from DO E's test procedure for commercial refrigeration equipment (per Title 10 Chapter II Subpart V - General Provisions 431.401). Hussmann is submitting this request because the current test procedure to evaluate the energy conservation rating for certain basic models (Appendix 1) is unrepresentative of the true energy consumption characteristics.

Basic Models for Which a Waiver is Requested
The Basic Models for which a waiver and interim waiver are being requested are set forth in Appendix I (hereinafter referred to as "Smart Exchange Locker"). The Smart Exchange Locker consists of a self-contained refrigerated unit with modular door compartments and its use is intended for the short-term storage of temperature-controlled products as part of an ecommerce [sic] fulfillment solution. A picture of the Smart Locker is also included in Appendix I.

Design Characteristics Constituting the Grounds for Petition
The Smart Exchange Locker consists of temperature-controlled units. These units can control both ambient temperature (non-critical food temperature) as well as medium and low temperatures (critical food temperature). Each unit is dedicated to one temperature setting with multiple compartments. End-user (retail) personnel load product into the compartments based upon the product temperature requirements. A notification system informs the end-user's customer (consumer) that the order is ready for pickup. Upon arrival at the Smart Exchange Locker, the consumer will use a code or personal mobile device to unlock the compartment(s) containing the consumer's products, thereby satisfying an order. The consumer retrieves the products and leaves. Finally, the Smart Exchange Locker compartments close and are available for the retail personnel to load subsequent orders. The Smart Exchange Locker is designed to be used in various locations including the lobbies of condominium / apartment complexes, corporate campuses, and college campuses / dorm facilities.

The compartments are designed for loading and retrieving product limited times per day. They are not designed or used as a traditional merchandiser where stored product may be exposed to constant door openings throughout a day.

Specific Requirements Sought to Be Waived
The current DOE test procedure sought to be waived can be found at 10 CFR Appendix B to Subpart C of Part 431 - Amended Uniform Test Method for the Measurement of Energy Consumption of Commercial Refrigerators, Freezers, and Refrigerator-Freezers, per AHRI
Standard 1200 (I-P)-2010, section 6, "Rating Requirements for Self-contained Commercial Refrigerated Display Merchandisers and Storage Cabinets."

Such procedure requires the basic models to be tested per ANSI/ASHRAE Standard 72. In ANSI/ASHRAE 72 - 2005, section 7.2 the door opening requirements are as follows:

**Current Door Opening Requirements**
Each door shall be in the fully open position for six seconds, six times per hour for eight consecutive hours. Each door shall be opened sequentially, one at a time. The eight-hour period of door opening shall begin three hours after the start of a defrost period. For units with pass-through doors, only the doors on one side of the unit shall be opened during the test.

**The Need for the Requested Waiver**
The required number of door openings in the current procedure do not anticipate the usage profile and application of the Smart Exchange Locker and thus overstate the energy consumption. In other words, the current test procedure overestimates the necessary door openings because ASHRAE-72 -2005 is intended for traditional refrigerated merchandisers and the consumer behavior at a grocery store or convenience store. The Smart Exchange Locker is designed for short-term storage of food and non-food items that may or may not require temperature control. The usage profile of the Smart Exchange Locker is limited by the time delay from the consumer schedule and retail delivery of product and the consumer arrival to collect their order. From beta testing we conclude that the test procedure previously requested by ITW (see next paragraph) is an accurate representation how a Smart Exchange Locker is being used in the field.

Hussmann is petitioning for a waiver on the door opening process for the low temperature Smart Exchange Locker module to be identical to the Decision and Order Granting a Waiver to ITW Food Equipment Group, LLC From the Department of Energy Commercial Refrigeration Equipment Test Procedure, in Federal Register/ Vol. 83, No. 77 / Wednesday, September 12, 2018 /Notices pages 46148- 46152, as set forth further below.

**Proposed Alternate Test Procedure**

**ITW Door-Opening Requirement:** Door openings shall start 3 hours after concluding stabilization period. Open each door for 8 seconds, every 2 hours, for 10 consecutive hours. (6 door cycles) (3 "load" and "unload" cycles)> Stock (load)+ Retrieve (un-load) - Cycle (turn).

**Comparison of Standard to Waiver Method**
Figure 1 shows the comparison of energy performance for a Smart Exchange Locker Low Temperature Module, Model SLOL8. The allowable energy level is 10.22 KW-hr/day (DOE equipment class VCS.SC.L). The proposed alternate test procedure, based on how the locker is used in the field, shows it will meet the maximum allowable energy limits without further need to modify additional energy requirements. This also shows how the energy consumption will be more accurately represented.
List of Manufacturers of all Other Basic Models Marketed in the United States and Known to the Petitioner to Incorporate Similar Design Characteristics

Hussmann has reviewed the CCMS database as of May 8, 2020 to review all known listed products and found that there are no known listed models covered by the DOE requirements that have design characteristics similar to that on which our petition is based.

Hussmann has done web searches and inquired with customers and is not aware of any products similarly designed having been sold in the United States. Hussmann is aware that products similar to the Smart Exchange Locker exists outside of the United States and believes that domestic retailers have been reviewing such products. Hussmann has not found any data indicating such products meet DOE energy efficiency requirements, UL electrical and mechanical safety requirements, or NSF food sanitation and food product safety temperature requirements.

Therefore, Hussmann does not believe that there are other known manufacturers in which to provide concurrent notice of this Petition for Waiver and Application for Interim Waiver.

Request for Interim Waiver

Hussmann Corporation also petitions for an interim waiver for the models listed in Appendix I, based on the merits of our proposed alternate test procedure to represent actual consumer behavior. With this waiver and reliance on alternate test procedure, Hussmann's calculations of the Smart Exchange Locker will accurately represent energy consumption and therefore believes the petition for waiver is likely to be granted. It is therefore essential the interim waiver be granted to allow Hussmann Corporation to distribute the Smart Exchange Locker and meet current demands.

Economic Hardships and Competitive Disadvantages

Changes in consumer behavior over the last several years show that traditional brick and mortar groceries are facing more competition from online shopping opportunities. The need for the Smart Exchange Locker is an option that traditional groceries as well as "new players" in the fresh food concept are using to expand their product offerings and appeal to the newer consumer behavior. Hussmann has been working with the retailers to understand their needs moving forward. The Smart Exchange Locker is an opportunity for both current and future shopping. We understand similar products are available overseas - they do not meet the stringent electrical and mechanical safety needs, food preservation safety needs, and energy efficiency needs required in the United States. These products are being evaluated by retailers in the US and there is a strong possibility these products will find their way into the US market. The above mentioned safety and energy efficiency needs may not be met because, like many
newer concept products, the appropriate standards and regulations will not be apparent to local authorities having jurisdiction (AHJs).

Refrigerated lockers are critical to support the needs of the growing e-commerce market. Online grocery sales are projected to grow at a compound annual growth rate of 15% (prior to the COVID crisis) through 2022, reaching 8.2% of total grocery spending. In addition, buy online pickup in store (BOPIS) and curbside pickup increased 62% between Feb. 24 and March 21 compared to the same period in 2019. Lockers are becoming viewed as a preferred method of supporting curbside or BOPIS grocery sales to limit contact. Shoppers prefer the “no human contact” that they get from ordering online and picking up their purchases at a locker. Home grocery delivery companies are seeing demand increase dramatically and expect e-commerce adoption to continue. They expect many customers not to return to traditional shopping after this change. In addition, one of the leading home grocery delivery companies projected a demand for 1000 lockers annually (prior to the increased demand created by COVID-19). We strongly expect this entire market to see an increased demand based on the changing consumer shopping behavior accelerated by the recent concerns of the COVID crisis.

**Conclusion:**
The Smart Exchange Locker is designed for limited access short-term storage of products to facilitate consumer pickup of electronically purchased items and it is not a traditional refrigerator or freezer merchandiser. Hussmann Corporation petitions DOE to grant the use of an Alternate Test Procedure and an Interim Waiver from DOE’s current requirement to test Commercial Refrigerators, Freezers, and Refrigerator-Freezers for the Smart Exchange Locker. Without such requested relief, Hussmann Corporation will not be able to meet market demand for a product supporting critical temperature short-term storage of e-commerce products. A grant of this petition is required to align a test procedure with the actual product usage profiles thereby allowing compliance with the requisite energy standards.

Sincerely,

/s/
Daniel C. Conrad, Ph.D.
Director Reliability & Testing

**APPENDIX I- Smart Locker**

**Basic Models for Which a Waiver is Requested**

A waiver is requested for the Hussmann branded Smart Locker basic model(s) which will be distributed in commerce. These models are identified as:

<table>
<thead>
<tr>
<th>Branded</th>
<th>Model Numbers:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hussmann</td>
<td>SLOL6, SLOL8, SLOL10, SLIL6, SLIL8, SLIL10</td>
</tr>
</tbody>
</table>

**Picture: Smart Locker**


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