from updating the 90.1 Standard to the 2019 edition in its building codes impact analysis. Accordingly, DOE incorporated the IWG's consideration in its analysis. However, as discussed in previous comments, DOE's SC–CO_2 analysis using these estimates was not considered in DOE's ultimate determination of whether the 2021 IECC Standard will improve energy efficiency.

Comment: AHRI, p. 4. AHRI argued that it is arbitrary and capricious to use different timeframes and assumptions for costs and benefits and notes that DOE must clarify precisely why and how it believes it has statutory authority under 42 U.S.C. 6833(a) to consider SC–CO_2 issues and cites why such action is legally arbitrary without sufficient documented reason for treating similar situations differently. AHRI notes that DOE, in clarifying why it believes it has such authority, can establish how it is acting consistently in terms of the analysis of benefits.

DOE Response: See previous response to AHRI comment on the issue of authority. On the issue of costs and benefits, DOE reemphasizes that its determination analysis is not assessing the costs and benefits associated with the updated 2021 IECC, that the determination is solely based on energy efficiency, and that the reported carbon emissions are reported only as supplemental information for the benefit of interested parties and in support of the directives of Executive Order 12866. To clarify the issue of timeframe, the emission estimates are based on one year (*i.e.,* the annual energy consumption estimated via the energy efficiency analysis). However, the step of projecting the associated CO_2 impacts captures the longer-term impact of those single-year emissions, as they persist in the atmosphere (and drive the damage impacts over the time they persist), which is then discounted to present value for the year when the emissions occur. DOE does not find an economic inconsistency in this approach to reporting emission benefits. Such a calculation is similar to life-cycle analysis, for instance, which is performed in a similar fashion, where a single year event occurs (*e.g.,* a purchase of more efficient equipment), but the energy savings are calculated over the time they exist (*e.g.,* the life of the equipment), and discounted back to the present value to reflect an overall life-cycle cost. DOE's reporting here of discounted damage impacts is consistent with that general approach.

Signing Authority

This document of the Department of Energy was signed on July 19, 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**.

Signed in Washington, DC, on July 22, 2021.

Treena V. Garrett,

Federal Register Liaison Officer, U.S. Department of Energy.

[FR Doc. 2021–15969 Filed 7–27–21; 8:45 am]

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DEPARTMENT OF ENERGY

[Case Number 2021–001; EERE–2021–BT–WAV–0001]

Energy Conservation Program: Notification of Petition for Waiver of Goodman Manufacturing Company, L.P. From the Department of Energy Central Air Conditioners and Heat Pumps Test Procedure and Notification of Grant of Interim Waiver

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

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 Goodman Manufacturing Company, L.P. (''Goodman'') which seeks a waiver from the U.S. Department of Energy (''DOE'') test procedure used for determining the efficiency of specified central air conditioner (''CAC'') and heat pump (''HP'') basic models. DOE also gives notification of an Interim Waiver Order that requires Goodman to test and rate specified CAC and HP basic models in accordance with the alternate test procedure set forth in the Interim Waiver Order. DOE solicits comments, data, and information concerning Goodman's petition and its suggested alternate test procedure to inform DOE's final decision on Goodman's waiver request.

DATES: The Interim Waiver Order is effective on July 28, 2021. Written comments and information are requested and will be accepted on or before August 27, 2021.

ADDRESSES: Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at *https://www.regulations.gov.* Follow the instructions for submitting comments. Alternatively, interested persons may submit comments by email to the following address: *Goodman2021WAV0001@ee.doe.gov.* Include case number ''2021–001'' and Docket number ''EERE–2021–BT–WAV–0001'' in the subject line of the message. Submit electronic comments in WordPerfect, Microsoft Word, PDF, or ASCII file format, and avoid the use of special characters or any form of encryption.

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 coronavirus disease 2019 (''COVID–19'') pandemic. DOE is currently accepting only electronic submissions at this time. 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.

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.

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 *https://www.regulations.gov/docket?D=EERE-2021-BT-WAV-0001.* 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. Email: *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. Email: *Peter.Cochran@hq.doe.gov.*

SUPPLEMENTARY INFORMATION: DOE is publishing Goodman's petition for waiver in its entirety, pursuant to 10 CFR 430.27(b)(1)(iv),[1] absent any information for which petitioner requested treatment as confidential business information. DOE invites all interested parties to submit in writing by August 27, 2021, comments and information on all aspects of the petition, including the alternate test procedure. Pursuant to 10 CFR 430.27(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 Rusty Tharp, *Russell.Tharp@goodmanmfg.com,* Goodman Manufacturing Company, L.P. 19001 Kermier Road, Waller, TX 77484.

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. 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 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 will also 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. No facsimiles (faxes) will 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).

Case Number 2021–001

Interim Waiver Order

I. Background and Authority

The Energy Policy and Conservation Act, as amended (''EPCA''),[2] among other things, authorizes the U.S. Department of Energy (''DOE'') to regulate the energy efficiency of a number of consumer products and industrial equipment. Title III, Part B [3] of EPCA established the Energy Conservation Program for Consumer Products Other Than Automobiles, which sets forth a variety of provisions designed to improve energy efficiency for certain types of consumer products. These products include central air conditioners and central air conditioning heat pumps (''CACs'' and ''HPs''), the subject of this Interim Waiver Order. (42 U.S.C. 6292(a)(3))

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. 6291), test procedures (42 U.S.C. 6293), labeling provisions (42 U.S.C. 6294), energy conservation standards (42 U.S.C. 6295), and the authority to require information and reports from manufacturers (42 U.S.C. 6296).

The Federal testing requirements consist of test procedures that manufacturers of covered products must use as the basis for: (1) Certifying to DOE that their products comply with the applicable energy conservation

[1] On December 11, 2020, DOE published an amendment to the waiver petition regulation at 10 CFR 430.27, which became effective beginning January 11, 2021. The Goodman 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 430.27 in the 10 CFR parts 200 to 499 edition revised as of January 1, 2021.

[2] 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).

[3] For editorial reasons, upon codification in the U.S. Code, Part B was redesignated as Part A.

standards adopted pursuant to EPCA (42 U.S.C. 6295(s)), and (2) making representations about the efficiency of that product (42 U.S.C. 6293(c)). Similarly, DOE must use these test procedures to determine whether the covered product complies with relevant standards promulgated under EPCA. (42 U.S.C. 6295(s))

Under 42 U.S.C. 6293, EPCA sets forth the criteria and procedures DOE is required to follow when prescribing or amending test procedures for covered products. 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 a covered product during a representative average use cycle or period of use and requires that test procedures not be unduly burdensome to conduct. (42 U.S.C. 6293(b)(3)) The current test procedure for CACs and HPs is contained in the Code of Federal Regulations (''CFR'') at 10 CFR part 430, subpart B, appendix M, *Uniform Test Method for Measuring the Energy Consumption of Central Air Conditioners and Heat Pumps* (''Appendix M''). Beginning January 1, 2023, any representations made with respect to the energy use, power, or efficiency of CACs and HPs must be based on the results of testing pursuant to 10 CFR part 430, subpart B, appendix M1, *Uniform Test Method for Measuring the Energy Consumption of Central Air Conditioners and Heat Pumps* (''Appendix M1'').

Under 10 CFR 430.27,[4] 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 model for which the waiver was requested contains a design characteristic that prevents testing of the basic model according to the prescribed test procedures, or that the prescribed test procedures 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(f)(2). A petitioner must include in its petition any alternate test procedures known to the petitioner to evaluate the performance of the product type in a manner representative of the energy consumption characteristics of the basic model. 10 CFR 430.27(b)(1)(iii). DOE may grant the waiver subject to conditions, including adherence to alternate test procedures. 10 CFR 430.27(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 430.27(l). As soon thereafter as practicable, DOE will publish in the **Federal Register** a final rule. *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 430.27(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 430.27(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 430.27(h)(2).

II. Goodman's Petition for Waiver and Interim Waiver

On January 8, 2021, Goodman filed a petition for waiver and interim waiver from the test procedure for CACs and HPs set forth in Appendix M and Appendix M1.[5] Goodman stated that Appendix M and Appendix M1[6] do not include provisions for determining cooling intermediate air volume rate, cooling minimum air volume rate, and heating intermediate air volume rate for the variable-speed coil-only single-split systems specified in its petition. Goodman asserts that although the CAC and HP test procedures at Appendix M and Appendix M1 generally provide for testing of variable-speed systems, they do not provide for testing of variable-speed coil-only single-split systems. Coil-only indoor units are distributed in commerce without an indoor blower or separate designated air mover. Such systems would be installed either with an existing air mover (*e.g.,* a furnace) or with a new air mover which is not designed by the manufacturer. The DOE test procedure provides instructions for setting airflow during testing to represent such indoor blowers or air movers. For example, the DOE test procedure provides instructions for setting minimum cooling air volume rate for ducted two-capacity coil-only systems in section 3.1.4.2(c) of Appendix M and Appendix M1. However, such instructions are not provided for testing variable-speed outdoor units paired with coil-only indoor units. Goodman seeks to use an alternate test procedure that provides instructions for setting air volume rates for all required tests to rate and test the basic models[7] listed in its petition.

Goodman 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 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 430.27(e)(2).

Based on the assertions in the petition, absent an interim waiver, the specified variable-speed coil-only single-split models that are subject of the waiver cannot be tested under the existing test procedure because

[4] On December 11, 2020, DOE published an amendment to the waiver petition regulation at 10 CFR 430.27, which became effective beginning January 11, 2021. The Goodman petition was received prior to the effective date of the 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 430.27 in the 10 CFR parts 200 to 499 edition revised as of January 1, 2021.

[5] The specific basic models for which the petition applies are 28 Daikin basic models: DX17VSS181AA, DX17VSS181BA, DX17VSS241AA, DX17VSS241BA, DX17VSS301AA, DX17VSS301BA, DX17VSS361AA, DX17VSS361BA, DX17VSS421AA, DX17VSS421BA, DX17VSS481AA, DX17VSS481BA, DX17VSS601AA, DX17VSS601BA, DZ17VSA181AA, DZ17VSA181BA, DZ17VSA241AA, DZ17VSA241BA, DZ17VSA301AA, DZ17VSA301BA DZ17VSA361AA, DZ17VSA361BA, DZ17VSA421AA, DZ17VSA421BA, DZ17VSA481AA, DZ17VSA481BA, DZ17VSA601AA, and DZ17VSA601BA. These basic model names were provided by Goodman in its revised petition on March 30, 2021.

[6] As noted, Appendix M1 is not required until January 1, 2023. However, manufacturers may determine it necessary to conduct testing under Appendix M1 in advance of that date to ensure compliance beginning on that future date.

[7] In Goodman's initial petition (EERE–2021–BT–WAV–0001–0001), three basic model numbers were identified. In an email received January 19, 2021 (EERE–2021–BT–WAV–0001–0002), Goodman clarified that one basic model number was listed in error, and that only two basic models are the subject of their petition. In an email received January 27, 2021 (EERE–2021–BT–WAV–0001–0003), Goodman clarified that they had made an error in listing the basic model numbers subject to their petition, and that there are 14 basic model numbers to which their petition applies. In an email received on March 30, 2021 (EERE–2021–BT–WAV–0001–0004), Goodman clarified another error in their 14 basic model numbers, which included wildcard characters. Goodman corrected their petition to list 28 basic model numbers without any wildcards.

Appendix M (and Appendix M1) does not include provisions for determining certain air volume rates for variable-speed coil-only single-split systems.

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 products. (42 U.S.C. 6293(c)). Consistency is important when making representations about the energy efficiency of products, including when demonstrating compliance with applicable DOE energy conservation standards. Pursuant to 10 CFR 430.27, 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.

In its petition, Goodman notes that DOE has granted waivers to GD Midea Heating & Ventilating Equipment Co., Ltd. (''GD Midea'') and TCL air conditioner (zhongshan) Co. Ltd. (''TCL AC'') for variable-speed coil-only single-split systems. 83 FR 56065 (Nov. 9, 2018) and 84 FR 11941 (Mar. 29, 2019), respectively. The Midea and TCL waivers require use of an alternate test procedure that specifies the same air volume rate for all tests, consistent with the controls of the systems addressed in those waivers, which do not have the provision for control signals to vary indoor fan speed. In contrast, Goodman states that its systems do have provisions for installing control components that can select lower indoor fan speed when the outdoor unit compressor is not running at full speed. As described by Goodman, the control takes advantage of the fact that nearly all central air-conditioning and heating system indoor fans have multiple speeds. The alternate test procedure requested by Goodman would specify lower airflow rates for certain tests. This parallels the test procedure approach for ducted two-stage coil-only systems.[8]

In its petition, Goodman requests that it be allowed to use a similar alternate test procedure as that granted to GD Midea and TCL AC, but Goodman's alternate test procedure would be different in that it would utilize the procedures for ducted two-stage coil-only systems and use the cooling minimum air volume rate as determined in section 3.1.4.2.c of Appendix M and Appendix M1 for the cooling minimum, heating minimum, cooling intermediate, and heating intermediate test conditions. In the alternate test procedure requested by Goodman, the cooling minimum air volume rate is the higher of either the rate specified by the instructions included with the unit or 75% of the cooling full-load air volume rate. All other requirements of Appendix M (and Appendix M1) remain identical.

IV. Interim Waiver Order

DOE has reviewed Goodman's application for an interim waiver, the alternate test procedure requested by Goodman, publicly available specification sheets and installation manuals, and the additional materials Goodman provided in support of its petition. Goodman's alternate test procedure proposes for its variable-speed coil-only systems to be tested using a minimum air volume rate that is determined using the same procedures as for ducted two-capacity coil-only units. DOE does not expect that there would be any differences in the typical installation scenarios for two-capacity or variable-speed coil-only systems, *i.e.,* the typical control wiring for a furnace fan paired with a coil-only indoor unit would enable two stages of fan control, regardless of the number of compressor stages. Therefore, DOE agrees with aligning the minimum air volume rate between two-capacity and variable-speed coil-only indoor units and believes that the proposed alternate test procedure is appropriate for use with the models listed in Goodman's petition. Based on DOE's review, the alternate test procedure appears to allow for the accurate measurement of the energy efficiency of the products specified in Goodman's petition, while alleviating the testing problems associated with Goodman's testing for these basic models. Consequently, it appears likely that Goodman's petition for waiver will be granted. Furthermore, DOE has determined that it is desirable for public policy reasons to grant Goodman immediate relief pending a determination of the petition for waiver.

For the reasons stated, it is *ordered* that:

(1) Goodman must test and rate the following Daikin brand single-split central air conditioner and heat pump (''CAC and HP'') basic models, which are comprised of the individual combinations listed below,[9] using the alternate test procedure set forth in paragraph (2).

Basic model No.	Brand	Outdoor unit	Indoor unit
DX17VSS181AA	Daikin	DX17VSS181AA	CAPEA1818*4*
	Daikin	DX17VSS181AA	CHPE2430B4*
DX17VSS181BA	Daikin	DX17VSS181BA	CAPEA1818*4*
	Daikin	DX17VSS181BA	CHPE2430B4*
DX17VSS241AA	Daikin	DX17VSS241AA	CAPEA1818*4*
	Daikin	DX17VSS241AA	CAPEA2422*4*
	Daikin	DX17VSS241AA	CHPE3636B4*
	Daikin	DX17VSS241AA	CHPE3642C4*
DX17VSS241BA	Daikin	DX17VSS241BA	CAPEA1818*4*
	Daikin	DX17VSS241BA	CAPEA2422*4*
	Daikin	DX17VSS241BA	CHPE3636B4*
	Daikin	DX17VSS241BA	CHPE3642C4*
DX17VSS301AA	Daikin	DX17VSS301AA	CAPEA2422*4*
	Daikin	DX17VSS301AA	CHPE3636B4*
	Daikin	DX17VSS301AA	CHPE3642C4*
DX17VSS301BA	Daikin	DX17VSS301BA	CAPEA2422*4*
	Daikin	DX17VSS301BA	CHPE3636B4*
	Daikin	DX17VSS301BA	CHPE3642C4*
DX17VSS361AA	Daikin	DX17VSS361AA	CAPEA3026*4*
	Daikin	DX17VSS361AA	CHPE3636B4*

[8] Section 3.1.4.2.c of Appendix M, and section 3.1.4.2.c of Appendix M1, which becomes the appropriate test procedure on or after January 1, 2023.

[9] The specified basic models contain individual combinations, which do not specify a particular air mover, and that each consist of an outdoor unit that uses a variable speed compressor matched with a coil-only indoor unit.

Basic model No.	Brand	Outdoor unit	Indoor unit
	Daikin	DX17VSS361AA	CHPE3743C4*
	Daikin	DX17VSS361AA	CHPE3743D4*
DX17VSS361BA	Daikin	DX17VSS361BA	CAPEA3026*4*
	Daikin	DX17VSS361BA	CHPE3636B4*
	Daikin	DX17VSS361BA	CHPE3743C4*
	Daikin	DX17VSS361BA	CHPE3743D4*
DX17VSS421AA	Daikin	DX17VSS421AA	CAPE4860*4*
	Daikin	DX17VSS421AA	CHPE3743C4*
	Daikin	DX17VSS421AA	CHPE3743D4*
DX17VSS421BA	Daikin	DX17VSS421BA	CAPE4860*4*
	Daikin	DX17VSS421BA	CHPE3743C4*
	Daikin	DX17VSS421BA	CHPE3743D4*
DX17VS481AA	Daikin	DX17VSS481AA	CAPE4860*4*
	Daikin	DX17VSS481AA	CAPE4961*4*
	Daikin	DX17VSS481AA	CHPE3743C4*
	Daikin	DX17VSS481AA	CHPE4860D4*
DX17VSS481BA	Daikin	DX17VSS481BA	CAPE4860*4*
	Daikin	DX17VSS481BA	CAPE4961*4*
	Daikin	DX17VSS481BA	CHPE3743C4*
	Daikin	DX17VSS481BA	CHPE4860D4*
DX17VSS601AA	Daikin	DX17VSS601AA	CAPE4961*4*
	Daikin	DX17VSS601AA	CHPE4860D4*
DX17VSS601BA	Daikin	DX17VSS601BA	CAPE4961*4*
	Daikin	DX17VSS601BA	CHPE4860D4*
DZ17VSA181AA	Daikin	DZ17VSA181AA	CAPEA1818*4*
	Daikin	DZ17VSA181AA	CHPEA2430B4*
DZ17VSA181BA	Daikin	DZ17VSA181BA	CAPEA1818*4*
	Daikin	DZ17VSA181BA	CHPEA2430B4*
DZ17VSA241AA	Daikin	DZ17VSA241AA	CAPEA1818*4*
	Daikin	DZ17VSA241AA	CAPEA2422*4*
	Daikin	DZ17VSA241AA	CHPEA3636B4*
	Daikin	DZ17VSA241AA	CHPEA3642C4*
DZ17VSA241BA	Daikin	DZ17VSA241BA	CAPEA1818*4*
	Daikin	DZ17VSA241BA	CAPEA2422*4*
	Daikin	DZ17VSA241BA	CHPEA3636B4*
	Daikin	DZ17VSA241BA	CHPEA3642C4*
DZ17VSA301AA	Daikin	DZ17VSA301AA	CAPEA2422*4*
	Daikin	DZ17VSA301AA	CHPEA3636B4*
	Daikin	DZ17VSA301AA	CHPEA3642C4*
DZ17VSA301BA	Daikin	DZ17VSA301BA	CAPEA2422*4*
	Daikin	DZ17VSA301BA	CHPEA3636B4*
	Daikin	DZ17VSA301BA	CHPEA3642C4*
DZ17VSA361AA	Daikin	DZ17VSA361AA	CAPEA3026*4*
	Daikin	DZ17VSA361AA	CHPEA3636B4*
	Daikin	DZ17VSA361AA	CHPEA3743C4*
	Daikin	DZ17VSA361AA	CHPEA3743D4*
DZ17VSA361BA	Daikin	DZ17VSA361BA	CAPEA3026*4*
	Daikin	DZ17VSA361BA	CHPEA3636B4*
	Daikin	DZ17VSA361BA	CHPEA3743C4*
	Daikin	DZ17VSA361BA	CHPEA3743D4*
DZ17VSA421AA	Daikin	DZ17VSA421AA	CAPEA4860*4*
	Daikin	DZ17VSA421AA	CHPEA3743C4*
	Daikin	DZ17VSA421AA	CHPEA3743D4*
DZ17VSA421BA	Daikin	DZ17VSA421BA	CAPEA4860*4*
	Daikin	DZ17VSA421BA	CHPEA3743C4*
	Daikin	DZ17VSA421BA	CHPEA3743D4*
DZ17VSA481AA	Daikin	DZ17VSA481AA	CAPEA4860*4*
	Daikin	DZ17VSA481AA	CAPEA4961*4*
	Daikin	DZ17VSA481AA	CHPEA3743C4*
	Daikin	DZ17VSA481AA	CHPEA4860D4*
DZ17VSA481BA	Daikin	DZ17VSA481BA	CAPEA4860*4*
	Daikin	DZ17VSA481BA	CAPEA4961*4*
	Daikin	DZ17VSA481BA	CHPEA3743C4*
	Daikin	DZ17VSA481BA	CHPEA4860D4*
DZ17VSA601AA	Daikin	DZ17VSA601AA	CAPEA4961*4*
	Daikin	DZ17VSA601AA	CHPEA4860D4*
DZ17VSA601BA	Daikin	DZ17VSA601BA	CAPEA4961*4*
	Daikin	DZ17VSA601BA	CHPEA4860D4*

(2) The alternate test procedure for the Goodman basic models identified in paragraph (1) of this Interim Waiver Order is the test procedure for CACs and HPs prescribed by DOE at 10 CFR part 430, subpart B, appendix M (''Appendix

M'') and, for representations made on and after January 1, 2023, at 10 CFR part 430, subpart B, appendix M1 (''Appendix M1''), except that for coil-only combinations:

In 3.1.4.2., *Cooling Minimum Air Volume Rate,* include:

f. For ducted variable-speed compressor systems tested with a coil-only indoor unit, the cooling minimum air volume rate is the higher of (1) the rate specified by the installation instructions included with the unit by the manufacturer or (2) 75 percent of the cooling full-load air volume rate. During the laboratory tests on a coil-only (fanless) system, obtain this cooling minimum air volume rate regardless of the pressure drop across the indoor coil assembly.

In 3.1.4.3., *Cooling Intermediate Air Volume Rate,* include:

d. For ducted variable-speed compressor systems tested with a coil-only indoor unit, the cooling intermediate air volume rate is the same as the cooling minimum air volume rate determined in section 3.1.4.2.f, without regard to the pressure drop across the indoor coil assembly.

In 3.1.4.6., *Heating Intermediate Air Volume Rate* (limited to ducted coil-only variable-speed heat pumps), include:

d. For ducted variable-speed compressor systems tested with a coil-only indoor unit, use the heating minimum air volume rate as determined in section 3.1.4.5.1.a.(3), without regard to the pressure drop across the indoor coil assembly.

The cooling minimum, cooling intermediate, heating minimum, and heating intermediate air volume rates are all identical under these provisions. All other requirements of Appendix M and Appendix M1 remain applicable.

(3) *Representations.* Goodman may not make representations about efficiency of the basic models 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 430.27.

(5) This Interim Waiver Order is issued on the condition that the statements, representations, and documentary materials provided by Goodman are valid. If Goodman 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 Goodman 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 Interim Waiver Order at any time if it determines the factual basis underlying the petition for Interim Waiver Order is incorrect, or the results from the alternate test procedure are unrepresentative of a basic models' true energy consumption characteristics. 10 CFR 430.27(k)(1). Likewise, Goodman may request that DOE rescind or modify the Interim Waiver Order if Goodman discovers an error in the information provided to DOE as part of its petition, determines that the Interim Waiver Order is no longer needed, or for other appropriate reasons. 10 CFR 430.27(k)(2).

(6) Issuance of this Interim Waiver Order does not release Goodman 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. Goodman may submit a new or amended petition for waiver and request for grant of interim waiver, as appropriate, for additional basic models of CACs and HPs. Alternatively, if appropriate, Goodman 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 430.27(g).

Signing Authority

This document of the Department of Energy was signed on July 22, 2021, by Kelly J. 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**.

Signed in Washington, DC, on July 23, 2021.

Treena V. Garrett,

Federal Register Liaison Officer, U.S. Department of Energy.

***** Public Version *****

SUBMITTED VIA EMAIL to *AS_Waiver_Requests@ee.doe.gov*

January 7, 2021

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

Re: Petition for Waiver and Interim Waiver on Test Procedure for Certain Variable-Speed Central Air Conditioners

Dear Sir/Ms.: Goodman Manufacturing Company, L.P. (''Goodman'') respectfully submits petitions for waiver and interim waiver to the Department of Energy (''DOE'') from certain provisions in the current federal test procedure for central air conditioners and heat pumps in Appendix M to Subpart B of 10 CFR part 430 (''Appendix M'') applicable until January 1, 2023, and the future test procedure set forth in Appendix M1 to Subpart B of 10 CFR part 430 (''Appendix M1'') and applicable on or after January 1, 2023, specifically for ducted coil-only variable-speed single-split system central air conditioners (''VSAC'') and variable-speed single-split system heat pumps (''VSHP'').

Goodman is a member of Daikin Group, one of the largest heating, ventilation and air conditioning (''HVAC'') manufacturers in the world. Goodman is headquartered in Houston, Texas, and employs thousands of workers across the United States. The company manufactures residential and light commercial heating and cooling equipment, and its products are sold and installed by contractors in every American state.

I. Introduction

While the federal test procedures in Appendix M and Appendix M1 specify tests for variable- speed systems, provisions specific to testing ducted coil-only VSACs and VSHPs do not exist in the test procedure. As explained further below, Goodman is seeking a waiver and an interim waiver from the federal test procedure to allow for testing and representations of performance metrics for certain ducted coil-only VSACs and VSHPs. Goodman's petition is consistent with previous DOE Decisions and Orders that granted waivers to other manufacturers

from specified portions of the DOE test procedure for determining the energy efficiency of central air conditioners and heat pumps.[1]

Goodman is asking the DOE to approve a proposed alternate test procedure that differs only slightly from the alternate test procedure DOE previously approved for other manufacturers. The difference is rather than using the full-load air volume rate for all tests, Goodman proposes to use the minimum air volume rate for intermediate and minimum speed tests, which aligns with the process in Appendix M and Appendix M1 for ducted two-stage coil-only systems.[2] Our request would utilize the cooling minimum air volume rate for cooling intermediate and cooling minimum tests. Further, in lieu of using the heating full-load air volume rate for the heating intermediate air volume rate, Goodman proposes to use the heating minimum air volume rate for ducted two-stage coil-only systems determined in section 3.1.4.5.1.a.(3). of the current federal test procedure. Additional details about Goodman's proposed alternate test procedure are provided in Section V of this petition.

Some information provided is confidential business information (''CBI''), therefore in accordance with 10 CFR 1004.11, we are submitting one copy of this petition with CBI information redacted. CBI information is indicated by being enclosed in square brackets, ''[''and'']''.

II. Particular Basic Models for Which Goodman Requests a Waiver and Interim Waiver

As required by 10 CFR 430.27(b)(i), Goodman is providing, in Appendix I of this petition, a list of the basic models for which Goodman requests a waiver from the test procedure. Each indoor unit is equipped with an electronic expansion valve. As a result, both the outdoor unit and indoor coil will communicate with each other to control superheat and subcooling. Our system control has an output that allows for a standard single-pole double-throw relay (''SPDT'') to be field installed to control indoor fan speed.[3] For conditions other than full-load, lowering the air volume rate from full-load to a lesser quantity provides benefits to the consumer by helping to maintain humidity control, providing more comfortable discharge air temperatures and reducing indoor fan energy consumption. Therefore, allowing differing airflows during the test will result in a better representation of the unit's actual performance for consumers and further DOE's goal under EPCA of more accurate testing.

III. List of Manufacturers

As required by 10 CFR 430.27(b)(ii), Goodman is providing, in Appendix II of this petition, a list of manufacturers of all other basic models distributed in commerce in the United States and known to Goodman to incorporate design characteristic(s) similar to those found in the basic models that are the subject of the petition.

IV. Grounds for Petition of Waiver

Goodman notes that the federal test procedures in Appendix M and Appendix M1 do not include provisions to determine the following cooling air volume rates for ducted coil-only VSACs and VSHPs: Cooling minimum, cooling intermediate, and heating intermediate (limited to ducted coil-only VSHPs). Specifically, sections 3.1.4.2 on cooling minimum air volume rate, 3.1.4.3 on cooling intermediate air volume rate, and 3.1.4.6 on heating intermediate air volume rate in Appendix M and Appendix M1 do not include adequate procedures for testing ducted coil-only VSACs/VSHPs. However, determination of these cooling/heating air volume rates is essential to establishing performance metrics, determining and certifying compliance in accordance with DOE's current requirements.[4] Although a coil-only represented value is not prohibited for ducted coil-only VSACs and VSHPs under 10 CFR 429.16(a) and the scopes of both Appendix M and Appendix M1 include such systems, the lack of coverage within the current test procedure to determine the cooling and heating air volume rates for such systems makes it impossible to make appropriate representations of performance metrics for these systems.[5]

As described generally above, our VSACs and VSHPs, if used in a coil-only application, have design characteristics for which the Appendix M and Appendix M1 test procedures cannot accurately represent their true energy consumption. Therefore, using the current test procedures without a waiver would result in materially inaccurate comparative data. 10 CFR 429.27(a)(1) and 10 CFR 429.27(f)(2). The remainder of this section describes in detail the design characteristics that form the basis for our request for waiver and interim waiver.

The basic models for which we request a test procedure waiver and interim waiver will require the use of *[REDACTED]*

For these reasons, specifying Cooling Minimum Airflow Rate or Heating Minimum Airflow Rate, as appropriate for the cooling or heating intermediate and minimum tests, will ensure that the test procedure matches the true operation, and therefore the true energy consumption, of our systems when installed in a consumer's home.

$$\text{Cooling intermediate speed} = \text{Cooling minimum speed} + \frac{\text{Cooling full speed} - \text{Cooling minimum speed}}{3}$$

Figure 2. DOE Formula for Intermediate Compressor Speed

[1] See *e.g.,* TCL AC (Case No. 2018–009, Docket EERE–2018–BT–WAV–0013, granted 3/29/19, published 84FR11941) and GD Midea (Case No. 2017–013, Docket EERE–2017–BT–WAV–0060, granted 11/09/18, published 83FR56065).

[2] Section 3.1.4.2.c. of Appendix M prior to January 1, 2023, and Section 3.1.4.2.c. of Appendix M1 on or after January 1, 2023.

[3] The installer would supply a SPDT relay to control the fan speed of the existing furnace. This is the same scheme used to change fan speed for two-stage systems today that is covered in today's DOE test procedure for those products. For two-stage systems, the installer will use a 24-volt signal from the room thermostat (either Y1 or Y2) to apply to the coil of the SPDT relay, which switches the fan speed as needed. For Goodman's variable speed applications, the installer will use the 24-volt signal from the electronic expansion valves in both the outdoor and indoor units.

[4] Energy conservation standards in 10 CFR part 430.32(c) and certification and compliance in accordance with 10 CFR part 429.

[5] Table 8 in Appendix M to Subpart B of 10 CFR part 430 specifies cooling mode test conditions for units having a variable-speed compressor, and these tests cannot be appropriately conducted without clear provisions pertaining to the three separate cooling air volume rates. Table 14 in Appendix M to Subpart B of 10 CFR part 430 specifies heating mode test conditions for units having a variable-speed compressor, and these tests cannot be appropriately conducted without clear provisions pertaining to the three separate heating air volume rates.

[Redacted]

Just as with any new air conditioner or heat pump installation using an existing furnace [8] the contractor who installs one of our VSAC or VSHP will need to determine the appropriate speed tap(s) of the existing furnace blower to connect to the furnace control. The airflow rates at which our systems will have certified performance will be published in both our technical literature and on the AHRI Directory of Certified Product Performance.[9]

Many existing furnaces with permanent split capacitor (''PSC'') motors, which is presently most of the installation base, typically have four or five speed taps for the motors. Many furnaces Goodman manufactured for years [10] had PSC motors with speed taps for ''hi,'' ''med,'' ''med-low'' and ''low'' airflow rates. For ''high stage'' cooling/heating operation, most field applications of single-stage or two-stage air conditioners or heat pumps would use one of the higher speed taps (such as ''hi'' or ''med''). For application of our variable speed air conditioners or heat pumps, we would recommend using the same speed tap for the higher airflow as would be used for ''high stage'' of a two-stage unit or for single-stage.

For ''low stage'' cooling/heating operation, most field applications of two-stage units would use the lowest or second lowest of the speed taps (such as ''low'' or ''med-low''). For application of our variable speed air conditioners or heat pumps, we would recommend using the same speed tap for the lower airflow as would be used for ''low stage'' of a two-stage unit.

This concludes the description of the design characteristics of our VSACs and VSHPs which render the current Appendix M and Appendix M1 test procedures incapable of providing accurate and representative measures of their true energy consumption. The next section provides our suggested modifications to Appendix M and Appendix M1 that will provide accurate and representative test data for our VSAC and VSHP.

V. Proposed Alternate Test Procedures

As required by 10 CFR 430.27(b)(iii), Goodman is providing the proposed revisions below to Appendix M and Appendix M1 as the alternative to evaluate the performance of the basic models listed in Appendix I of this petition.

The alternate test procedures for the Goodman basic models identified in Appendix I of this petition are identical to the test procedures prescribed in Appendix M and Appendix M1. The exception is as described below, for coil-only combinations, the cooling minimum air volume rate as determined in section 3.1.4.2.c. of Appendix M and Appendix M1 shall be used as the cooling intermediate and cooling minimum air volume rates. The heating minimum air volume rate as determined in section 3.1.4.5.1.a.(3). of both Appendix M and Appendix M1 shall also be used as the heating intermediate air volume rate.[11] All other requirements of Appendix M and Appendix M1 remain identical.

In 3.1.4.2, Cooling Minimum Air Volume Rate, include the following:

f. For ducted variable-speed compressor systems tested with a coil-only indoor unit, the cooling minimum air volume rate is the higher of (1) the rate specified by the installation instructions included with the unit by the manufacturer or (2) 75 percent of the cooling full-load air volume rate. During the laboratory tests on a coil-only (fanless) system, obtain this cooling minimum air volume rate regardless of the pressure drop across the indoor coil assembly.

In 3.1.4.3, Cooling Intermediate Air Volume Rate, include the following:

d. For ducted variable-speed compressor systems tested with a coil-only indoor unit, use the cooling minimum air volume rate as determined in 3.1.4.2(f), without regard to the pressure drop across the indoor coil assembly.

In 3.1.4.6, Heating Intermediate Air Volume Rate (limited to ducted coil-only VSHPs), include the following:

d. For ducted variable-speed compressor systems tested with a coil-only indoor unit, use the heating minimum air volume rate as determined in 3.1.4.5.1.a.(3), without regard to the pressure drop across the indoor coil assembly.

No alternate test procedure is being proposed for Cooling Full-load Air Volume Rate, Heating Minimum Air Volume Rate (limited to ducted coil-only VSHPs), and Heating Full-Load Air Volume Rate (limited to ducted coil-only VSHPs). Cooling Full-load Air Volume Rate will be determined using section 3.1.4.1.1.c. of the federal test procedures set forth in Appendix M and M1. Heating Minimum Air Volume Rate will be determined using section 3.1.4.5.1.a.(3) of the federal test procedures set forth in Appendix M and M1. Heating Full-load Air Volume Rate will be determined using section 3.1.4.4.1.a.(3) of the federal test procedures set forth in Appendix M and M1.

VI. Petition for Interim Waiver

Pursuant to 10 CFR part 430.27(b)(2), Goodman also hereby applies for an interim waiver of the applicable test procedure requirements for the basic models listed in Appendix I of this petition.

Goodman believes the petition for waiver is likely to be granted, as evidenced in Section I and Section IV of this document. Without waiver relief, Goodman would be subject to requirements under the current federal test procedure that would render it impossible for Goodman to make appropriate representations of performance metrics for the basic models listed in Appendix I of this petition, thereby precluding Goodman from distributing these basic models into commerce and limiting consumer choice and competition. Goodman respectfully requests DOE to consider this public policy aspect and grant immediate relief pending a determination on the petition for waiver, while also accounting for any similar decisions made in the past for other manufacturers on the same matter.

Additionally, Goodman is likely to suffer economic hardship and a competitive disadvantage if DOE does not grant its interim waiver request. Absent an interim waiver, the basic models listed in Appendix I of this petition will continue to remain disadvantaged in the marketplace relative to other products. If Goodman must wait for completion of the waiver consideration and issuance process, it may well be forced to delay the opportunity to offer high efficiency, energy saving VSAC and VSHP models to U.S. consumers, as well as delay recouping production and marketing costs associated with introducing the basic models via product sales into the U.S. market.

VII. Concluding Remarks

Goodman respectfully requests that DOE grant its petitions for waiver and interim waiver of the applicable test procedure for the specified basic models. Goodman requests expedited treatment of both the petitions and is willing to provide promptly any additional information DOE requires to

[8] Regardless of whether the new air conditioner or heat pump is single-stage or two-stage.

[9] *https://www.ahridirectory.org/Search/SearchHome.*

[10] Prior to Fan Energy Rating (''FER'') rule that went into effect 7/3/2019.

[11] Note that provisions in section 3.1.4.5.2.d. specific to ducted two-stage coil-only system northern heat pumps and ducted two-stage heating-only coil-only system heat pumps do not apply to the basic models addressed in this petition.

act expeditiously, as receipt of the waivers will facilitate Goodman's timely production of the applicable models for the upcoming cooling season. If you have any questions regarding Goodman's petitions for waiver and interim waiver, please do not hesitate to contact myself or Rusty Tharp, Senior Director of Regulatory Affairs (713/263–5906 or *rusty.tharp@goodmanmfg.com*).

Sincerely,
/s/
Sukru Erisgen
Vice President of Engineering, Tel: 713/861–2500,
Email: *sukru.erisgen@goodmanmfg.com*

Appendix I

The waiver and interim waiver requests apply to the following basic models. Note that for all coil-only systems, there is no indoor unit with fan.

Manufacturer (outdoor unit or package unit)	Manufacturer (indoor unit)	Brand name(s)	Basic model No. (No. unique to the basic model)	Individual model No. covered by basic model (outdoor unit or package unit)	Individual model No. (indoor unit), if applicable
Daikin	Daikin	Daikin	DX17VSS181*	DX17VSS181*	CAPEA1818*4*
Daikin	Daikin	Daikin		DX17VSS181*	CHPE2430B4*
Daikin	Daikin	Daikin	DX17VSS241*	DX17VSS241*	CAPEA1818*4*
Daikin	Daikin	Daikin		DX17VSS241*	CAPEA2422*4*
Daikin	Daikin	Daikin		DX17VSS241*	CHPE3636B4*
Daikin	Daikin	Daikin		DX17VSS241*	CHPE3642C4*
Daikin	Daikin	Daikin	DX17VSS301*	DX17VSS301*	CAPEA2422*4*
Daikin	Daikin	Daikin		DX17VSS301*	CHPE3636B4*
Daikin	Daikin	Daikin		DX17VSS301*	CHPE3642C4*
Daikin	Daikin	Daikin	DX17VSS361*	DX17VSS361*	CAPEA3026*4*
Daikin	Daikin	Daikin		DX17VSS361*	CHPE3636B4*
Daikin	Daikin	Daikin		DX17VSS361*	CHPE3743C4*
Daikin	Daikin	Daikin		DX17VSS361*	CHPE3743D4*
Daikin	Daikin	Daikin	DX17VSS421*	DX17VSS421*	CAPE4860*4*
Daikin	Daikin	Daikin		DX17VSS421*	CHPE3743C4*
Daikin	Daikin	Daikin		DX17VSS421*	CHPE3743D4*
Daikin	Daikin	Daikin	DX17VSS481*	DX17VSS481*	CAPE4860*4*
Daikin	Daikin	Daikin		DX17VSS481*	CAPE4961*4*
Daikin	Daikin	Daikin		DX17VSS481*	CHPE3743C4*
Daikin	Daikin	Daikin		DX17VSS481*	CHPE4860D4*
Daikin	Daikin	Daikin	DX17VSS601*	DX17VSS601*	CAPE4961*4*
Daikin	Daikin	Daikin		DX17VSS601*	CHPE4860D4*
Daikin	Daikin	Daikin	DZ17VSA181*	DZ17VSA181*	CAPEA1818*4*
Daikin	Daikin	Daikin		DZ17VSA181*	CHPEA2430B4*
Daikin	Daikin	Daikin	DZ17VSA241*	DZ17VSA241*	CAPEA1818*4*
Daikin	Daikin	Daikin		DZ17VSA241*	CAPEA2422*4*
Daikin	Daikin	Daikin		DZ17VSA241*	CHPEA3636B4*
Daikin	Daikin	Daikin		DZ17VSA241*	CHPEA3642C4*
Daikin	Daikin	Daikin	DZ17VSA301*	DZ17VSA301*	CAPEA2422*4*
Daikin	Daikin	Daikin		DZ17VSA301*	CHPEA3636B4*
Daikin	Daikin	Daikin		DZ17VSA301*	CHPEA3642C4*
Daikin	Daikin	Daikin	DZ17VSA361*	DZ17VSA361*	CAPEA3026*4*
Daikin	Daikin	Daikin		DZ17VSA361*	CHPEA3636B4*
Daikin	Daikin	Daikin		DZ17VSA361*	CHPEA3743C4*
Daikin	Daikin	Daikin		DZ17VSA361*	CHPEA3743D4*
Daikin	Daikin	Daikin	DZ17VSA421*	DZ17VSA421*	CAPEA4860*4*
Daikin	Daikin	Daikin		DZ17VSA421*	CHPEA3743C4*
Daikin	Daikin	Daikin		DZ17VSA421*	CHPEA3743D4*
Daikin	Daikin	Daikin	DZ17VSA481*	DZ17VSA481*	CAPEA4860*4*
Daikin	Daikin	Daikin		DZ17VSA481*	CAPEA4961*4*
Daikin	Daikin	Daikin		DZ17VSA481*	CHPEA3743C4*
Daikin	Daikin	Daikin		DZ17VSA481*	CHPEA4860D4*
Daikin	Daikin	Daikin	DZ17VSA601*	DZ17VSA601*	CAPEA4961*4*
Daikin	Daikin	Daikin		DZ17VSA601*	CHPEA4860D4*

Appendix II

The following are manufacturers of all other basic models distributed in commerce in the United States and known to Goodman to incorporate design characteristics similar to those found in the basic models that are the subject of the petition for waiver and interim waiver:

- Aaon, Inc.
- Advanced Distributor Products, LLC
- Allied Air Enterprises, LLC
- Allstyle Coil Company, LP
- Aspen Manufacturing, LLC
- Bosch Thermotechnology Corp
- Carrier Corporation
- ECR International
- Fujitsu General America, Inc.
- GD Midea Heating & Ventilating Equipment Co., Ltd.
- Johnson Controls, Inc.
- Lennox International Inc.
- LG Electronics U.S.A., Inc.
- Mitsubishi Electric Cooling & Heating
- Mortex Products, Inc.
- National Comfort Products
- Nortek Global HVAC, LLC
- Rheem Manufacturing Company
- Samsung Electronics Co. Ltd.
- Trane Technologies
- TCL air conditioner (zhongshan) Co., Ltd.
- Unico, Inc.

[FR Doc. 2021–16021 Filed 7–27–21; 8:45 am]

BILLING CODE 6450–01–P