DEPARTMENT OF ENERGY

Energy Efficiency and Renewable Energy

[Case No. CAC–027]

Energy Conservation Program for Certain Industrial Equipment:
Publication of the Petition for Waiver From Sanyo North America Corp. and Granting of the Interim Waiver From the Department of Energy Commercial Package Air Conditioner and Heat Pump Test Procedures


ACTION: Notice of petition for waiver, granting of application for interim waiver, and request for comments.

SUMMARY: This notice announces receipt of and publishes a petition for waiver from Sanyo North America Corp. (Sanyo). The petition for waiver (hereafter “petition”) requests a waiver from the U.S. Department of Energy (DOE) test procedure applicable to commercial package air-source and water-source central air conditioners and heat pumps. The petition is specific to the Sanyo variable capacity ECO-i (commercial) multi-split heat pumps. Through this document, DOE: (1) Solicits comments, data, and information with respect to the Sanyo petition; and (2) announces the grant of an interim waiver to Sanyo from the existing DOE test procedure for the subject commercial multi-split air conditioners and heat pumps.

DATES: DOE will accept comments, data, and information with respect to the Sanyo petition until, but no later than April 19, 2010.

ADDRESSES: You may submit comments, identified by case number “CAC–027,” by any of the following methods:

- E-mail: AS_Waiver_Requests@ee.doe.gov.

Include either the case number [CAC–027], and/or “Sanyo Petition” in the subject line of the message.


Docket: For access to the docket to review the background documents relevant to this matter, you may visit the U.S. Department of Energy, 950 L'Enfant Plaza, SW., Resource Room of the Building Technologies Program, Washington, DC 20024; (202) 586–2945, between 9 a.m. and 4 p.m., Monday through Friday, except on Federal holidays. Available documents include the following items: (1) This notice; (2) public comments received; (3) the petition for waiver and application for interim waiver; and (4) prior DOE rulemakings regarding similar central air conditioning and heat pump equipment. Please call Ms. Brenda Edwards at the above telephone number for additional information regarding visiting the Resource Room.


SUPPLEMENTARY INFORMATION:

I. Background and Authority

Title III of the Energy Policy and Conservation Act (EPCA) sets forth a variety of provisions concerning energy efficiency, including Part A of Title III, which establishes the “Energy Conservation Program for Consumer Products Other Than Automobiles.” (42 U.S.C. 6291–6309) Part A–1 of Title III provides for a similar energy efficiency program titled “Certain Industrial Equipment,” which includes commercial air conditioning equipment, package boilers, water heaters, and other types of commercial equipment. (42 U.S.C. 6311–6317).

Today’s notice involves commercial equipment under Part A–1. Part A–1 specifically includes definitions (42 U.S.C. 6311), test procedures (42 U.S.C. 6314), labeling provisions (42 U.S.C. 6315), energy conservation standards (42 U.S.C. 6313), and the authority to require information and reports from manufacturers (42 U.S.C. 6316). With respect to test procedures, Part A–1 authorizes the Secretary of Energy (the Secretary) to prescribe test procedures that are reasonably designed to produce results that measure energy efficiency, energy use, and estimated annual operating costs, and that are not unduly burdensome to conduct. (42 U.S.C. 6314(a)(2))

For commercial package air-conditioning and heating equipment, EPCA provides that “the test procedures shall be those generally accepted industry testing procedures or rating procedures developed or recognized by the Air-Conditioning and Refrigeration Institute [ARI] or by the American Society of Heating, Refrigerating and Air-Conditioning Engineers [ASHRAE], as referenced in ASHRAE/IES Standard 90.1 and in effect on June 30, 1992.” (42 U.S.C. 6314(a)(4)(A)) Under 42 U.S.C. 6314(a)(4)(B), the statute further directs the Secretary to amend the test procedure for a covered commercial product if the industry test procedure is amended, unless the Secretary determines, by rule and based on clear and convincing evidence, that such a modified test procedure does not meet the statutory criteria set forth in 42 U.S.C. 6314(a)(2) and (3).

petition filed by Sanyo range from 72,000 Btu/h to 288,000 Btu/h. The Sanyo water-source products with capacities greater than or equal to 135,000 Btu/h are not covered by this waiver because the DOE test procedure covers water-source heat pumps with capacities less than 135,000 Btu/h. The cooling capacities of Sanyo’s commercial ECO-i air-source multi-split heat pump products also range from 72,000 Btu/h to 288,000 Btu/h. All of these products are covered by this waiver, as ARI Standard 340/360–2004 covers products with capacities greater than 65,000 Btu/hour.

DOE’s regulations for covered products permit a person to seek a waiver from the test procedure requirements for covered commercial equipment if at least one of the following conditions is met: (1) The petitioner’s basic model contains one or more design characteristics that prevent testing according to the prescribed test procedures; or (2) the prescribed test procedures may evaluate the basic model in a manner so unrepresentative of its true energy consumption as to provide materially inaccurate comparative data. 10 CFR 431.401(a)(1). Petitioners must include in their petition any alternate test procedures known to the petitioner to evaluate the basic model in a manner representative of its energy consumption. 10 CFR 431.401(b)(1)(iii). The Assistant Secretary for Energy Efficiency and Renewable Energy (Assistant Secretary) may grant a waiver subject to conditions, including adherence to alternate test procedures. 10 CFR 431.401(f)(4). Waivers remain in effect pursuant to the provisions of 10 CFR 431.401(g).

The waiver process also permits parties submitting a petition for waiver to file an application for interim waiver of the applicable test procedure requirements. 10 CFR 431.401(a)(2). The Assistant Secretary will grant an interim waiver request if it is determined that the applicant will experience economic hardship if the application for interim waiver is denied, if it appears likely that the petition for waiver will be granted, and/or the Assistant Secretary determines that it would be desirable for public policy reasons to grant immediate relief pending a determination on the petition for waiver. 10 CFR 431.401(e)(3). An interim waiver remains in effect for 180 days or until DOE issues its determination on the petition for waiver, whichever occurs first. It may be extended by DOE for an additional 180 days. 10 CFR 431.401(e)(4).

II. Petition for Waiver

On January 4, 2010, Sanyo filed a petition for waiver from the test procedures at 10 CFR 431.96 applicable to commercial package air and water-source central air conditioners and heat pumps, as well as an application for interim waiver. The capacities of the Sanyo ECO-i multi-split heat pumps range from 72,000 Btu/h to 288,000 Btu/h. Thus, ISO Standard 13256–1 (1998) is the applicable test procedure for Sanyo’s ECO-i multi-split water-source heat pumps with capacities less than 135,000 Btu/h. The applicable test procedure for the air-source heat pumps is ARI 340/360–2004. Manufacturers are directed to use these test procedures pursuant to Table 1 of 10 CFR 431.96.

Sanyo seeks a waiver from the applicable test procedures under 10 CFR 431.96 on the grounds that its ECO-i multi-split heat pumps contain design characteristics that prevent testing according to the current DOE test procedures. Specifically, Sanyo asserts that the two primary factors that prevent testing of its multi-split variable speed products are the same factors stated in the waivers that DOE granted to Mitsubishi Electric & Electronics USA, Inc. (Mitsubishi) and other manufacturers for similar lines of commercial multi-split air-conditioning systems:

• Testing laboratories cannot test products with so many indoor units; and
• There are too many possible combinations of indoor and outdoor units to test. 69 FR 52660 (August 27, 2004) (Mitsubishi waiver); 72 FR 17528 (April 9, 2007) (Mitsubishi waiver); 72 FR 71387 (Dec. 17, 2007) (Samsung waiver); 72 FR 71383 (Dec. 17, 2007) (Fujitsu waiver); 73 FR 39680 (July 10, 2008) (Daikin waiver); 74 FR 15955 (April 8, 2009) (Daikin waiver); 74 FR 16193 (April 9, 2009) (Sanyo waiver); 74 FR 16373 (April 10, 2009) (Daikin waiver).

The ECO-i systems have operational characteristics similar to the commercial multi-split products manufactured by Mitsubishi, Samsung, Fujitsu and Daikin. As indicated above, DOE has already granted waivers for these products. The ECO-i system includes 90 unique outdoor models and 54 unique indoor models, and can connect up to 40 indoor units to a single outdoor unit. There are over one million combinations possible with the Sanyo ECO-i system. Consequently, Sanyo requested that DOE grant a waiver from the applicable test procedures for its ECO-i product designs until a suitable test method can be prescribed.

III. Application for Interim Waiver

On January 4, 2010, Sanyo also submitted an application for an interim waiver. DOE determined that Sanyo’s application for interim waiver does not provide sufficient market, equipment price, shipments, and other manufacturer impact information to permit DOE to evaluate the economic hardship Sanyo might experience absent a favorable determination on its application for an interim waiver. DOE understands, however, that if it did not issue an interim waiver, Sanyo’s products would not be tested and rated for energy consumption on an equal basis with equivalent products for which DOE previously granted waivers. This would place Sanyo at a competitive disadvantage. Furthermore, DOE has determined that it appears likely that Sanyo’s petition for waiver will be granted and that is desirable for public policy reasons to grant Sanyo immediate relief pending a determination on the petition for waiver. DOE believes that it is likely Sanyo’s petition for waiver for the new ECO-i multi-split models will be granted because, as noted above, DOE has previously granted a number of waivers for similar product designs. The two principal reasons supporting the grant of the previous waivers also apply to Sanyo’s ECO-i products: (1) Test laboratories cannot test products with so many indoor units; and (2) it is impractical to test so many combinations of indoor units with each outdoor unit. In addition, DOE believes that similar products should be tested and rated for energy consumption on a comparable basis. For these same reasons, DOE also determined that it is desirable for public policy reasons to grant immediate relief pending a determination on the petition for waiver.

Therefore, it is ordered that:

The application for interim waiver filed by Sanyo is hereby granted for Sanyo’s ECO-i multi-split heat pumps, subject to the specifications and conditions below.

1 Sanyo shall not be required to test or rate its ECO-i commercial multi-split products on the basis of the existing test procedures under 10 CFR 431.96, which incorporates by reference ISO Standard 13256–1 (1998) for the water-source products and ARI 340/360–2004 for the air-source products.

1 DOE notes that it has also previously granted interim waivers to Fujitsu (70 FR 5980 (Feb. 4, 2005)), Samsung (70 FR 9629 (Feb. 28, 2005)), Mitsubishi (72 FR 17533 (April 9, 2007)), and Sanyo (72 FR 35986 (July 2, 2007)), for comparable commercial multi-split air conditioners and heat pumps.
2. Sanyo shall be required to test and rate its ECO-i commercial multi-split products according to the alternate test procedure as set forth in section IV(3), "Alternate test procedure."

The interim waiver applies to the following basic model groups:

ECOi Outdoor Units

Models CHDX***63 with capacities ranging from 72,000 to 288,000 Btu/h.
- **: 072, 096, 144, 168, 192, 216, 240, 264, 288.

Models CHDXR***63 with capacities ranging from 72,000 to 288,000 Btu/h.
- **: 072, 096, 144, 168, 192, 216, 240, 264, 288.

Models CHDX**74 with capacities ranging from 72,000 to 288,000 Btu/h.
- **: 072, 096, 144, 168, 192, 216, 240, 264, 288.

Models CHDXR**74 with capacities ranging from 72,000 to 288,000 Btu/h.
- **: 072, 096, 144, 168, 192, 216, 240, 264, 288.

ECOi Outdoor Unit Air Source Heat Pump Series (208/230 Volt, 3 Phase, 60 Hz)

- Models CHDZ***63 with capacities ranging from 72,000 to 288,000 Btu/h.
  - **: 072, 096, 144, 168, 192, 216, 240, 264, 288.

- Models CHDXR***63 with capacities ranging from 72,000 to 288,000 Btu/h.
  - **: 072, 096, 144, 168, 192, 216, 240, 264, 288.

- Models CHDZ**74 with capacities ranging from 72,000 to 288,000 Btu/h.
  - **: 072, 096, 144, 168, 192, 216, 240, 264, 288.

- Models CHDXR**74 with capacities ranging from 72,000 to 288,000 Btu/h.
  - **: 072, 096, 144, 168, 192, 216, 240, 264, 288.

ECOi Outdoor Unit Air Source Heat Recovery Series (208/230 Volt, 3 Phase, 60 Hz)

- Models CHDZ***63 with capacities ranging from 72,000 to 288,000 Btu/h.
  - **: 072, 096, 144, 168, 192, 216, 240, 264, 288.

- Models CHDXR***63 with capacities ranging from 72,000 to 288,000 Btu/h.
  - **: 072, 096, 144, 168, 192, 216, 240, 264, 288.

- Models CHDZ**74 with capacities ranging from 72,000 to 288,000 Btu/h.
  - **: 072, 096, 144, 168, 192, 216, 240, 264, 288.

- Models CHDXR**74 with capacities ranging from 72,000 to 288,000 Btu/h.
  - **: 072, 096, 144, 168, 192, 216, 240, 264, 288.

ECOi Outdoor Unit Water Source Heat Recovery Series (460 Volt, 3 Phase, 60 Hz)

- Models CHWDZ***74 with capacities ranging from 72,000 to 96,000 Btu/h.
  - **: 072, 096.

ECOi Outdoor Unit Water Source Heat Recovery Series (460 Volt, 3 Phase, 60 Hz)

- Models CHWDZ***74 with capacities ranging from 72,000 to 96,000 Btu/h.
  - **: 072, 096.

Compatible Indoor Units For Above Listed Outdoor Units

- UMHX**62 series low profile concealed ducted with nominally rated capacities of 7,000, 9,000, 12,000, 15,000, 18,000, 24,000, 36,000, 48,000 and 54,000 Btu/h.
- UHX**62 series low-medium static concealed ducted with nominally rated capacities of 7,000, 9,000, 12,000, 15,000, 18,000, 24,000, 36,000, 48,000 and 54,000 Btu/h.
- DHX**52 series medium-high static concealed ducted with nominally rated capacities of 36,000 and 48,000 Btu/h.
- XMHX**52 series four way cassette with nominally rated capacities of 12,000 and 18,000 Btu/h.
- XHX**52 series four way cassette with nominally rated capacities of 24,000 and 36,000 Btu/h.
- AHX**52 series one way discharge ceiling cassette indoor units with nominally rated capacities of 7,000, 9,000 and 12,000 Btu/h.
- FHX**62 series floor mounted with nominally rated capacities of 7,000, 9,000, 12,000, 15,000, 18,000 and 24,000 Btu/h.
- FMHX**62 series floor mounted concealed with nominally rated capacities of 7,000, 9,000, 12,000, 15,000, 18,000 and 24,000 Btu/h.
- KHX**52 series wall mounted with nominally rated capacities of 7,000, 9,000, 12,000, 15,000, 18,000 and 24,000 Btu/h.
- KHX**62 series wall mounted with nominally rated capacities of 18,000 and 19,000 Btu/h.
- THX**52 series ceiling suspended with nominally rated capacities of 12,000, 18,000 and 24,000 Btu/h.
- VHXX**62 series vertical air handler with nominally rated capacities of 12,000, 18,000, 24,000, 30,000, 36,000, 42,000, 48,000 and 60,000 Btu/h.

This interim waiver is issued on the condition that the statements, representations, and documents provided by the petitioner are valid. DOE may revoke or modify this interim waiver at any time if it determines the factual basis underlying the petition for waiver is incorrect or the results from the alternate test procedure are unrepresentative of the basic models’ true energy consumption characteristics.

IV. Alternate Test Procedure

In responses to two recent petitions for waiver from Mitsubishi, DOE specified an alternate test procedure to provide a basis from which Mitsubishi could test and make valid energy efficiency representations for its R410A CITY MULTI products, as well as for its R22 multi-split products. Alternate test procedures relating to the Mitsubishi petitions were published in the Federal Register on April 9, 2007. See 72 FR 17528 and 72 FR 17533. For reasons similar to those published in these prior notices, DOE believes that an alternate test procedure is appropriate in this instance.

DOE understands that existing testing facilities have limited ability to test multiple indoor units simultaneously. This limitation makes it impractical for manufacturers to test the large number of possible combinations of indoor and outdoor units for some variable refrigerant flow zoned systems. We further note that after DOE granted a waiver for Mitsubishi’s R22 multi-split products, ARI formed a committee to discuss testing issues and to develop a testing protocol for variable refrigerant flow systems. The committee has developed a test procedure which has been adopted by AHRI—AHRI Standard 1230—2009: “Performance Rating of Variable Refrigerant Flow (VRF) Multi-Split Air-Conditioning and Heat Pump Equipment.” This test procedure has not yet been incorporated into ASHRAE 90.1.

Therefore, as discussed below, as a condition for granting this interim waiver to Sanyo, DOE is including an alternate test procedure similar to those granted to Mitsubishi for its R22 and R410A products. DOE plans to consider the same alternate test procedure in the context of the subsequent decision and order pertaining to Sanyo’s petition for waiver. This alternate test procedure will allow Sanyo to test and make energy efficiency representations for its ECO-i products. DOE has applied a similar alternate test procedure to other waivers for similar residential and commercial central air conditioners and heat pumps manufactured by Mitsubishi (72 FR 17528, April 9, 2007); Samsung (72 FR 71387, Dec. 17, 2007); Fujitsu (72 FR 71383, Dec. 17, 2007); Daikin (73 FR 16193, April 9, 2009); Daikin (74 FR 15955, April 8, 2009); Sanyo (74 FR 39680, July 10, 2008); Daikin (74 FR 71383, Dec. 17, 2007); Daikin (73 FR 39680, July 10, 2008); Daikin (74 FR 15955, April 8, 2009); Sanyo (74 FR 16193, April 9, 2009); Daikin (74 FR 16373, April 10, 2009); Mitsubishi (74 FR 16373, April 10, 2009); Mitsubishi (74 FR 15955, April 8, 2009); Sanyo (74 FR 39680, July 10, 2008); Daikin (74 FR 15955, April 8, 2009); Sanyo (74 FR 16193, April 9, 2009); Daikin (74 FR 16373, April 10, 2009); Mitsubishi (74 FR 16373, April 10, 2009); Mitsubishi (74 FR 15955, April 8, 2009).
designate a “tested combination” for each model of outdoor unit. The indoor units designated as part of the tested combination must meet specific requirements. For example, the tested combination must have from two to eight indoor units so that it can be tested in available test facilities. (The “tested combination” was originally defined to consist of one outdoor unit matched with between 2 and 5 indoor units. The maximum number of indoor units in a tested combination is increased in this instance from 5 to 8 to account for the fact that these larger-capacity products can accommodate a greater number of indoor units.) The tested combination must be tested according to the applicable DOE test procedure, as modified by the provisions of the alternate test procedure as set forth below. The alternate test procedure also allows manufacturers of such products to make valid and consistent representations of energy efficiency for their air-conditioning and heat pump products. DOE plans to consider inclusion of the following waiver language in the decision and order for Sanyo’s ECO-i commercial multi-split water-source heat pump models:

(1) The petition for waiver filed by Sanyo North America Corp. is hereby granted as set forth in the paragraphs below.

(2) Sanyo shall not be required to use existing test procedures to test or rate its ECO-i variable capacity multi-split heat pump products listed above in section III, but shall be required to test and rate such products according to the alternate test procedure as set forth in paragraph (3).

(3) Alternate test procedure.

(A) Sanyo shall be required to test the products listed in section III above according to the test procedures for central air conditioners and heat pumps prescribed by DOE at 10 CFR 431.96, except that Sanyo shall test a tested combination selected in accordance with the provisions of subparagraph (B) of this paragraph. For every other system combination using the same outdoor unit as the tested combination, Sanyo shall make representations concerning the ECO-i products covered in this waiver according to the provisions of subparagraph (C) below.

(B) Tested combination. The term tested combination means a sample basic model comprised of units that are production units, or are representative of production units, of the basic model being tested. For the purposes of this waiver, the tested combination shall have the following features:

(1) The basic model of a variable refrigerant flow system used as a tested combination shall consist of one outdoor unit, with one or more compressors, that is matched with between two and five indoor units. (For systems with nominal cooling capacities greater than 150,000 Btu/h, as many as eight indoor units may be used, so as to be able to test non-ducted indoor unit combinations). For multi-split systems, each of these indoor units shall be designed for individual operation.

(2) The indoor units shall—

(i) Represent the highest sales model family or another indoor model family if the highest sales model family does not provide sufficient capacity (see ii);

(ii) Together, have a nominal cooling capacity that is between 95% and 105% of the nominal cooling capacity of the outdoor unit;

(iii) Not, individually, have a nominal cooling capacity that is greater than 50% of the nominal cooling capacity of the outdoor unit;

(iv) Operate at fan speeds that are consistent with the manufacturer’s specifications; and

(v) Be subject to the same minimum external static pressure requirement while being configurable to produce the same static pressure at the exit of each outlet plenum when manifolded as per section 2.4.1 of 10 CFR Part 430, subpart B, appendix M.

(C) Representations. In making representations about the energy efficiency of its ECO-i variable capacity multi-split heat pump products for compliance, marketing, or other purposes, Sanyo must fairly disclose the results of testing under the DOE test procedure in a manner consistent with the provisions outlined below:

(1) For ECO-i combinations tested in accordance with this alternate test procedure, Sanyo may make representations based on these test results.

(2) For ECO-i combinations that are not tested, Sanyo may make representations of non-tested combinations at the same energy efficiency level as the tested combination. The outdoor unit must be the one used in the tested combination. The representations must be based on the test results for the tested combination. The representations may also be determined by an Alternative Rating Method approved by DOE.

V. Summary and Request for Comments

Through today’s notice, DOE announces receipt of the Sanyo petition for waiver from the test procedures applicable to Sanyo’s ECO-i commercial multi-split heat pump products. For the reasons articulated above, DOE also grants Sanyo an interim waiver from those procedures. As part of this notice, DOE is publishing Sanyo’s petition for waiver in its entirety. The petition contains no confidential information. Furthermore, today’s notice includes an alternate test procedure that Sanyo is required to follow as a condition of its interim waiver and that DOE is considering including in its subsequent decision and order. In this alternate test procedure, DOE is defining a tested combination that Sanyo could use in lieu of testing all retail combinations of its ECO-i multi-split heat pump products.

DOE is interested in receiving comments on the issues addressed in this notice. Pursuant to 10 CFR 431.401(d), any person submitting written comments must also send a copy of such comments to the petitioner, pursuant to 10 CFR 431.401(d). The contact information for the petitioner is: Mr. Gary Nettinger, Vice President, Applied Products Group, Sanyo North America Corp., 1690 Roberts Blvd., NW, Suite 110, Kennesaw, GA 30144. All submissions received must include the agency name and case number for this proceeding. Submit electronic comments in WordPerfect, Microsoft Word, Portable Document Format (PDF), or text (American Standard Code for Information Interchange (ASCII)) file format and avoid the use of special characters or any form of encryption. Wherever possible, include the electronic signature of the author. DOE does not accept telefacsimiles (faxes).

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 two copies: one copy of the document including all the information believed to be confidential, and one copy of the document 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.

Issued in Washington, DC on March 10, 2010.

Cathy Zoi,
Assistant Secretary, Energy Efficiency and Renewable Energy.

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January 4, 2010
Ms. Catherine Zoi
Assistant Secretary for Energy Efficiency and Renewable Energy
United States Department of Energy
1000 Independence Ave., SW
Washington, DC 20585–0121
Re: Petition for Waiver of Test Procedure and Application for Interim Waiver for ECO-i Air Source and Water Source Heat Pumps and Heat Recovery Products
Dear Assistant Secretary Zoi,
SANYO North America Corporation (SANYO) respectfully petitions the Department of Energy (DOE) pursuant to 10 C.F.R § 431.401(a) (1–1–09 Edition) for a waiver of the test procedure as defined in 10 C.F.R § 431.96 (1–1–09 Edition), ARI Standard 340/360–2004 and ISO Standard 13256–1 for SANYO’s ECOi commercial Variable Refrigerant Flow (VRF) multi-split air and water source heat pump and heat recovery systems. This petition for waiver is requested for SANYO’s ECOi VRF multi-split systems because the basic design of VRF multi-split systems result in the inability to test or rate the performance of the system according to prescribed test procedures at this time. SANYO would also request that any future SANYO ECOi VRF multi-split products that may be developed also be provided waiver from test procedure until an accepted test procedure is identified by DOE.
DOE has previously granted a similar waiver to SANYO for our first generation ECOi air source heat pump and heat recovery products on April 9, 2009 (F.R. Vol. 74/No. 67/pages 16193–16197). SANYO’s ECOi VRF multi-split equipment addressed in this petition results from the planned introduction of our second generation ECOi product line targeted for a phased introduction beginning in February 2010. This new second generation ECOi product line incorporates new technologies and other design changes that increase the overall system performance and expand the product line. This new second generation product does however maintain many of the same basic functions and features of our original ECOi product line which was addressed a previous petition (Case No. CAC–017, dated February 22, 2007).

SECTION 1—BACKGROUND
SANYO’s ECO-i VRF Multi-split heat pumps and heat recovery products contains characteristics that prevent testing of the system using the procedures outlined in ARI 340/360–2004 or ISO 13256–1. The products identified in this request involve 90 unique outdoor models and 54 unique indoor models and the line continues to expand. These indoor and outdoor units may be connected in such a substantial possible number of configurations that more than one million unique systems may be created. ECOi VRF multi-split systems may involve up to 40 indoor units being connected to an outdoor system. Simply stated, testing laboratories cannot test products with so many indoor units connected to an outdoor system. There are too many possible combinations to be feasibly tested. And testing facilities are not designed to test multi split VRF systems with such large numbers of indoor and outdoor units.

As a result of the before mentioned test procedure problems, SANYO seeks a waiver from test procedures for these products and future ECOi VRF products until such time as a permanent or interim method of testing and rating VRF Multi-Split products is adopted.

SECTION 2—SANYO Petitions a Waiver from Test Procedure for the following Particular Basic Model Groups

ECOi Outdoor Unit Air Source Heat Pump Series (208/230 Volt, 3 Phase, 60 Hz):
- Models CHDX***63 with capacities ranging from 72,000 to 288,000 BTU/hr.
  ***: 072, 096, 144, 168, 192, 216, 240, 264, 288
- Models CHDXR***63 with capacities ranging from 72,000 to 288,000 BTU/hr.
  ***: 072, 096, 144, 168, 192, 216, 240, 264, 288

ECOi Outdoor Unit Air Source Heat Pump Series (460 Volt, 3 Phase, 60 Hz):
- Models CHDX**74 with capacities ranging from 72,000 to 288,000 BTU/hr.
  ***: 072, 096, 144, 168, 192, 216, 240, 264, 288
- Models CHDZR**74 with capacities ranging from 72,000 to 288,000 BTU/hr.
  ***: 072, 096, 144, 168, 192, 216, 240, 264, 288

ECOi Outdoor Unit Air Source Heat Recovery Series (208/230 Volt, 3 Phase, 60 Hz):
- Models CHDZ***74 with capacities ranging from 72,000 to 288,000 BTU/hr.
  ***: 072, 096, 144, 168, 192, 216, 240, 264, 288
- Models CHDZR***74 with capacities ranging from 72,000 to 288,000 BTU/hr.
  ***: 072, 096, 144, 168, 192, 216, 240, 264, 288

ECOi Outdoor Unit Water Source Heat Recovery Series (208/230 Volt, 3 Phase, 60 Hz):
- Models CHWDX***63 with capacities ranging from 72,000 to 288,000 BTU/hr.
  ***: 072, 096, 144, 168, 192, 216, 240, 264, 288

All outdoor units identified above are compatible for use with the below listed indoor units. SANYO ECOi indoor units operate on 208/230 volt single phase 60 hertz power supplies. SANYO ECOi VRF Indoor Units:
- UMXH**62 series low profile concealed ducted with nominally rated capacities of 7,000, 9,000, 12,000, 15,000 and 18,000 BTU/hr.
- XHMX**62 series low-medium static concealed ducted with nominally rated capacities of 7,000, 9,000, 12,000, 15,000, 18,000, 24,000, 36,000, 48,000 and 54,000 BTU/hr.
- DXX**52 series medium-high static concealed ducted with nominally rated capacities of 36,000 and 48,000 BTU/hr.
- XMHX**52 series four way cassette with nominally rated capacities of 12,000 and 18,000 BTU/hr.
- XHXX**52 series four way cassette with nominally rated capacities of 24,000 and 36,000 BTU/hr.
- AXX**52 series one way discharge ceiling cassette indoor units with nominally rated capacities of 7,000, 9,000 and 12,000 BTU/hr.
- FMHX**62 series floor mounted with nominally rated capacities of 7,000, 9,000, 12,000, 15,000, 18,000 and 24,000 BTU/hr.
- KHX**52 series wall mounted with nominally rated capacities of 7,000,
9,000, 12,000, 15,000, 18,000 and 24,000 BTU/hr.

• KHX**62 series wall mounted with nominally rated capacities of 18,000 and 19,000 BTU/hr.

• THX**52 series ceiling suspended with nominally rated capacities of 12,000, 18,000 and 24,000 BTU/hr.

• VHX**62 series vertical air handler with nominally rated capacities of 12,000, 18,000, 24,000, 30,000, 36,000, 42,000, 48,000 and 60,000 BTU/hr.

SECTION 3—DESIGN CHARACTERISTICS CONSTITUTING THE GROUNDS FOR PETITION

ECOi VRF multi-split products enable the connection of multiple indoor units to an outdoor unit or outdoor system comprised of one, two or even three interconnected outdoor units. SANYO designs and manufactures ECO-i VRF multi-split systems outdoor units which utilize either air or water as the heat exchange media. All outdoor units are capable of part load operation by varying refrigerant flow through the use of inverter driven variable speed compressor technology. This results in the outdoor units operating capacity closely matching the actual indoor load. The ECO-i product line is designed to optimize overall system performance and efficiency when operating at part load. This significantly decreases overall energy usage.

Each indoor unit of the ECO-i system may have an individual remote controller that allows the occupant to adjust their temperature independently of the set temperature of other indoor units connected to the same outdoor unit. Some of the indoor units may be set to the “off” mode which increases energy savings even further when heating or cooling is not required.

The variable speed compressor is capable of reducing operating capacity to a fraction of its full load capacity. This results in a significant energy savings when only a small amount of heating or cooling is required.

The VRF multi-split technology that is incorporated in the ECO-i system allows up to 130% of indoor unit rated capacity to be connected to the outdoor unit system. VRF technology allows this mismatch of indoor to outdoor capacity to again save energy and to utilize load shifting diversity while still meeting the HVAC requirements of the building.

ECO-i series “CHDZ Heat Recovery” VRF multi-split outdoor units go one step further by allowing the consumer to operate both heating and cooling simultaneously. In the simultaneous mode, heat is actually being removed from the “cooling zones” and deposited in the “heating zones” via the system’s heat recovery ability. Although there is no currently adopted DOE, AHRI or ASHRAE method to recognize the systems performance during simultaneous operation, it is certainly reasonable to believe that the overall system efficiency is dramatically increased. This increase in efficiency occurs because some indoor units within the building are acting as condensers while other indoor units are acting as evaporators at the same time. This means that heat is transferred within the building rather than being wasted to the outdoor environment.

Multi-split VRF technology will help our nation to reduce the amount of energy needed to heat and cool our buildings. SANYO is pleased to introduce this technology to not only improve the control that the end user has over their environment but also to help with our nation’s desire to reduce overall energy usage.

The Department of Energy (DOE) has previously granted waivers and/or interim waivers to other manufacturers of similar VRF multi-split equipment that contain the same basic design characteristics as that of SANYO’s ECO-i product line. Such waiver relief has been granted to:

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<thead>
<tr>
<th>Company</th>
<th>Federal Register No.</th>
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<tr>
<td>Daikin</td>
<td>74 Fed. Reg., No. 67</td>
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<tr>
<td>SANYO</td>
<td>74 Fed. Reg., No. 67</td>
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<tr>
<td>Mitsubishi</td>
<td>71 Fed. Reg., 14858</td>
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<td>Mitsubishi</td>
<td>72 Fed. Reg., 17528</td>
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<td>Samsung</td>
<td>72 Fed. Reg., 71387</td>
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<td>Fujitsu</td>
<td>72 Fed. Reg., 71383</td>
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<td>SANYO</td>
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<tr>
<td>Daikin</td>
<td>73 Fed. Reg., 1207, 1213</td>
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<td>SANYO</td>
<td>60 Fed. Reg., 52660</td>
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<td>SANYO</td>
<td>70 Fed. Reg., 9629</td>
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<td>SANYO</td>
<td>69 Fed. Reg., 52660</td>
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SECTION 4—SPECIFIC REQUIREMENTS SOUGHT TO BE WAIVED

SANYO petitions waiver from the test conditions and procedures of ARI Standard 340/360–2004 identified by Table 1 to §431.96 and to section 431.96 of 10 C.F.R. 431 (1–1–09 Edition) for our ECO-i VRF multi-split air cooled heat pump and heat recovery systems with nominal capacity ranging from 72,000 to 288,000 BTU/hr.

SANYO also petitions waiver from the test conditions and procedures of ISO Standard 13256–1 (1998) identified in Table 1 to §431.96 and to section 431.96 of 10 C.F.R. 431 (1–1–09 Edition) for our ECO-i VRF multi-split water source heat pump and heat recovery systems with nominal capacity ranging from 72,000 to 288,000 BTU/hr.

SECTION 5—IDENTITY OF MANUFACTURERS OF SIMILAR BASIC MODELS

To the best of our knowledge the following manufacturers either currently market similar VRF products within the United States:

• Daikin AC (Americas), Inc.
• Fujitsu General America, Inc.
• LG Electronics U.S.A., Inc.
• Mitsubishi Electric & Electronics USA, Inc.

SECTION 6—ALTERNATE TESTING PROCEDURES

SANYO requests that DOE apply the same Alternate Test Procedure to cover the ECOi systems defined in Section 2 above as DOE previously applied to SANYO’s first generation ECOi VRF multi-split products as defined in Federal Register/Vol. 74, No. 67/Thursday, April 9, 2009/Notices, pages 16195 and 16196.

SECTION 7—APPLICATION FOR INTERIM WAIVER

In accordance with 10 CFR 431.401(a)(2) SANYO takes this opportunity to also submit an Application for Interim Waiver of test procedures for our ECO-i VRF multi-split models listed in Section 2 of this document. SANYO believes that it is likely that our Petition for Waiver will be granted based upon but not limited to the following supportive facts:

• The approvals of similar Petitions for Waiver and/or Applications for Interim Waivers requests have previously been granted by DOE for Mitsubishi Electric & Electronics USA, Inc.
USA, Daikin AC (Americas), Inc. and SANYO. Details of these approvals are provided in Section 3 of this document.

- Through the approval of previous Petitions for Waiver and Applications for Interim Waiver it has been demonstrated that testing standards such as ARI 340–360 and ISO 13256–1 do not adequately define uniform methods to test and rate the performance of VRF multi-split products.
- Failure to approve our Petition for Waiver and Application for Interim Waiver will not only result in significant economic hardship but SANYO will also suffer a serious competitive disadvantage as other manufacturers of similar product continue to be able to market their VRF multi-split products and gain market share while SANYO could not.
- A significant portion of SANYO’s overall projected sales revenues are dependent upon the timely introduction of this product line. Our intention is to begin introducing these new ECO-i products in February 2010.
- The approval of this waiver and interim waiver is in the best interest of our public and government initiatives to reduce national energy usage.

It is therefore reasonable for one to believe that SANYO’s petition will also be granted.

SECTION 8—CONFIDENTIAL INFORMATION

SANYO makes no request to DOE related to this Petition for Waiver from Test Procedure and Application for Interim Waiver containing confidential information.

SECTION 9—CONCLUSION

It is clear that without the approval of this Petition for Waiver and Application for Interim Waiver that SANYO will loose our ability to effectively compete in the United States VRF market. This is a market in which our company has proven success with HVAC products for more than 25 years and even longer in many other countries throughout the world. SANYO is pleased to have an opportunity to bring this leading edge technology to the United States market, to not only improve the comfort of Americans but also to also reduce the amount of energy consumed on building cooling and heating.

SANYO respectfully requests the Department of Energy grant our Application for Interim Waiver and our Petition for Waiver from Test Procedure to enable the introduction of our second generation advanced ECO-i products to the U.S. market. Granting these requested waivers will permit us to effectively compete in the marketplace.

Due to our near term introduction of our ECO-i product offering we would greatly appreciate a timely response to this Petition for Waiver from Test Procedure and Application for Interim Waiver.

As stated in the introduction of this request SANYO would also request that any future SANYO ECO-i products that may be developed also be provided waiver from test procedure until an accepted test procedure is identified by DOE.

Should you or any parties have questions related to this Petition for Waiver from Test Procedure and Application for Interim Waiver,please contact Gary Nettinger at 678-810-0261 or by email at gnettinger@sna.sanyo.com.

Sincerely,

Gary Nettinger

Vice President; Applied Products Group
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cc:

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Carrollton, TX 75006
Attn: Akinori Atarashi, President

Fujitsu General America, Inc.
353 Route 46 West
Fairfield, NJ 07004
Attn: Arturo Thur Do Koos, Engineering & Technical Support

LG Electronics USA, Inc.
1750 K Street NW
Washington, DC 20006
Attn: John I. Taylor, Vice President, Public Affairs and Communications

Mitsubishi Electric & Electronics USA, Inc.
4300 Lawrenceville-Suwanee Road
Suwanee, GA 30024
Attn: William Rau, Senior Vice President and General Manager

[FR Doc. 2010–5934 Filed 3–17–10; 8:45 am]

BILLING CODE 4450–01–P

DEPARTMENT OF ENERGY

Office of Energy Efficiency and Renewable Energy

[Case No. RF–011]

Energy Conservation Program for Consumer Products: Decision and Order Granting a Waiver to Samsung Electronics America, Inc. From the Department of Energy Residential Refrigerator and Refrigerator-Freezer Test Procedure (Case No. RF–011)


ACTION: Decision and order.

SUMMARY: The U.S. Department of Energy (DOE) gives notice of the decision and order (Case No. RF–011) that grants to Samsung Electronics America, Inc. (Samsung) a waiver from the DOE electric refrigerator and refrigerator-freezer test procedure for certain basic models containing relative humidity sensors and adaptive control anti-sweat heaters. Under today’s decision and order, Samsung shall be required to test and rate its refrigerator-freezers with adaptive control anti-sweat heaters according to an alternate test procedure that takes this technology into account when measuring energy consumption.

DATES: This Decision and Order is effective March 18, 2010.

FOR FURTHER INFORMATION CONTACT: Dr. Michael G. Raymond, U.S. Department of Energy, Building Technologies Program, Mailstop EE–21, 1000 Independence Avenue, SW., Washington, DC 20585–0121. Telephone: (202) 586–0611. E-mail: ASWaiver Requests@ee.doe.gov; Betsy Kohl, U.S. Department of Energy, Office of General Counsel, Mail Stop GC–71, 1000 Independence Avenue, SW., Washington, DC 20585–0103, (202) 586–7796; E-mail: Elizabeth.Kohl@hq.doe.gov.

SUPPLEMENTARY INFORMATION: In accordance with Title 10 of the Code of Federal Regulations (10 CFR) 430.27(l), DOE gives notice of the issuance of its decision and order as set forth below. The decision and order grants Samsung a waiver from the applicable residential refrigerator and refrigerator-freezer test procedures at 10 CFR part 430 subpart B, appendix A1 for certain basic models of refrigerator-freezers with relative humidity sensors and adaptive control anti-sweat heaters, provided that Samsung tests and rates such products using the alternate test procedure described in this notice. Today’s