

240 (1989), and from the test procedures contained in ARI 210/240 (1994), that the Department has proposed to adopt.

MEUS requests a waiver from the test procedures for the following basic product models:

CITY MULTI Variable Refrigerant Flow Zoning System R-2 Series Outdoor Equipment:

PURY-80TMU, 80,000 Btu/h, 208/230-3-60 split-system variable-speed heat pump

PURY-100TMU, 100,000 Btu/h, 208/230-3-60 split-system variable-speed heat pump

CITY MULTI Variable Refrigerant Flow Zoning System Y Series Outdoor Equipment:

PUHY-80TMU, 80,000 Btu/h, 208/230-3-60 split-system variable-speed heat pump

PUHY-100TMU, 100,000 Btu/h, 208/230-3-60 split-system variable-speed heat pump

PUY-80TMU, 80,000 Btu/h, 208/230-3-60 split-system variable-speed air conditioner

PUY-100TMU, 100,000 Btu/h, 208/230-3-60 split-system variable-speed air conditioner

CITY MULTI Variable Refrigerant Flow Zoning System Indoor Equipment ¹:

PCFY Series—Ceiling Suspended—PCFY-16/24/40/48***-*

PDFY Series—Ceiling Concealed Ducted—PDFY-08/10/12/16/20/24/28/32/40/48***-*

PEFY Series—Ceiling Concealed Ducted, Low External Static Pressure—PEFY-08/10/12***-*

PEFY Series—Ceiling Concealed Ducted, High External Static Pressure—PEFY-16/20/24/28/32/40/48***-*

PFFY Series—Floor Standing—PFFY-08/10/12/16/20/24***-*

PKFY Series—Wall-Mounted—PKFY-08/10/12/16/20/24/32/40***-*

PLFY Series—4-Way Airflow Ceiling Cassette—PLFY-12/16/20/24/32/40/48***-*

PLFY Series—2-Way Airflow Ceiling Cassette—PLFY-08/10/12/16/20/24/32/40/48***-*

PMFY Series—1-Way Airflow Ceiling Cassette—PMFY-08/10/12/16***-*

MEUS seeks a waiver from the applicable test procedures because, MEUS asserts, the current test procedures evaluate CITY MULTI VRFZ system products in a manner so unrepresentative of their true energy consumption characteristics as to provide materially inaccurate comparative data. MEUS claims that the energy usage of the CITY MULTI VRFZ

systems cannot be representatively measured using the current test procedures for the following reasons:

1. The test procedures provide for testing of the pair of indoor and outdoor assemblies making up a typical split system, but provide no direction about how to test CITY MULTI systems with which literally millions of combinations of indoor units could be used with any given outdoor assembly.

2. The test procedures call for testing “matched assemblies,” but CITY MULTI systems are designed to be used in zoning systems where the capacity of the indoor units does not match the capacity of the outdoor unit.

3. The test procedures do not accommodate infinite variability in compressor speed.

4. The test procedures do not account for the capability of simultaneous heating and cooling.

The MEUS petition requests that DOE grant a waiver from existing test procedures until such time as a representative test procedure is developed and adopted for this class of products. MEUS intends to work with ARI to develop appropriate test procedures.

The Department is publishing the MEUS “Petition for Waiver” in its entirety. The Petition contains no confidential information. The Department solicits comments, data, and information with respect to the Petition. The Department is particularly interested in receiving comments and views of interested parties concerning any alternate test procedures, or modifications to test procedures, that the Department could use to fairly represent the energy efficiency of MEUS’ CITY MULTI products. Any person submitting written comments must also send a copy of such comments to the petitioner. 10 CFR 430.27(b)(1)(iv).

Issued in Washington, DC, on September 9, 2003.

David K. Garman,

Assistant Secretary, Energy Efficiency and Renewable Energy.

Mitsubishi Electric & Electronics USA, Inc.

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Mr. David K. Garman, Assistant Secretary for Energy Efficiency and Renewable Energy, U.S. Department of Energy, 1000 Independence Ave. SW., Washington, DC 20585-0121.

June 13, 2003.

Re: Petition for Waiver of Test Procedure.
Dear Assistant Secretary Garman: Mitsubishi Electric & Electronics USA, Inc. (MEUS)

respectfully submits this petition to the Department of Energy (DOE) for a waiver of the test procedures applicable to commercial package air conditioners and heat pumps, as established in ARI 210/240 (1989), for MEUS’s CITY MULTI Variable Refrigerant Flow Zoning System products.²

Background—CITY MULTI Variable Refrigerant Flow Zoning Systems

MEUS’s line of CITY MULTI Variable Refrigerant Flow Zoning (VRFZ) System products, offered by the HVAC Advanced Products Division of MEUS, combines advanced technologies to provide a new approach to comfort conditioning. CITY MULTI VRFZ systems are complete, commercial zoning systems that save energy through the effective use of variable refrigerant control and distribution, zoning diversity, and system intelligence.

CITY MULTI VRFZ systems have the capability of connecting a single outdoor unit to up to 16 indoor units, giving these systems tremendous installation flexibility with over a million potential system combinations. The operating characteristics of a VRFZ system allow each indoor unit to have a different set temperature and a different mode of operation (*i.e.*, on/off/heat/cool/fan), allowing great flexibility of operation. The variable speed compressor and the system controls direct refrigerant flow throughout the system to precisely match the performance of the system to the load of the conditioned areas. The compressor is capable of reducing its operating capacity to as little as 16% of its rated capacity. The outdoor fan motor also has a variable speed drive to properly match the outdoor coil to indoor loads. Zone diversity enables VRFZ systems to have a total connected indoor unit capacity of up to 150% of the capacity of the outdoor unit. The CITY MULTI R2 Series, the first member of this MEUS product family to be introduced into the U.S. market, is capable of simultaneously providing cooling to one or more zones while heating other zones using advanced heat recovery methods.

² As of this petition, DOE has not codified procedures concerning waiver of test procedures for commercial package air conditioners and heat pumps. However, we assume that DOE will employ the same procedures it uses for processing requests for waivers of other test procedures. See 10 CFR 430.27 (2002) (procedures for waiver from test procedures for consumer products) and 10 CFR 431.29 (2002) (procedures for waiver from test procedures for electric motors). While there are no final regulations for commercial package air conditioners and heat pumps, in a 1999 Notice of Proposed Rulemaking, DOE proposed procedures and standards for granting waivers and interim waivers from test procedures for commercial package air conditioners and heat pumps, in a 1999 Notice of Proposed Rulemaking, DOE proposed procedures and standards for granting waivers and interim waivers from test procedures for commercial heating and air conditioning equipment. These proposed procedures are similar to those codified for other products. In particular, DOE proposed to grant waivers where 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.” 64 FR 69598 (Dec. 13, 1999) (to be codified at 10 CFR 431.601).

¹ The * denotes engineering differences in the models.