

**DEPARTMENT OF ENERGY****Office of Energy Efficiency and Renewable Energy****10 CFR Part 431****[Docket No. EE-RM/TP-99-460]****RIN 1904-AA97****Energy Efficiency Program for Certain Commercial and Industrial Equipment: Test Procedures and Efficiency Standards for Commercial Air Conditioners and Heat Pumps****AGENCY:** Office of Energy Efficiency and Renewable Energy, Department of Energy.**ACTION:** Proposed rule and public hearing.

**SUMMARY:** The Energy Policy and Conservation Act, as amended (EPCA), establishes energy efficiency standards and test procedures for certain commercial products, including commercial air conditioners and heat pumps. In today's proposed rule, the Department of Energy (we, DOE, or the Department) proposes regulations to implement the standards and test procedures for these air conditioners and heat pumps.

**DATES:** The Department will accept comments, data, and information regarding the proposed rule until October 23, 2000. Please submit ten (10) copies. In addition, we request that you provide an electronic copy (3½" diskette) of the comments in WordPerfect™ 8.

We will hold a public hearing (workshop) on September 21, 2000, in Washington, DC. Please send requests to speak at the workshop so that we receive them by 4 p.m., September 7, 2000. Send ten (10) copies of your statements for the public workshop so that we receive them by 4:00 p.m., September 14, 2000. We also request a computer diskette (WordPerfect™ 8) of each statement.

**ADDRESSES:** Please submit written comments, oral statements, and requests to speak at the workshop to Brenda Edwards-Jones, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, EE-41, Docket No. EE-RM/TP-99-460, 1000 Independence Avenue, SW., Washington, DC 20585. You may send email to: [brenda.edwards-jones@ee.doe.gov](mailto:brenda.edwards-jones@ee.doe.gov). The workshop will begin at 9 a.m., on September 21, 2000, in Room 1E-245 at the U.S. Department of Energy, Forrestal Building, 1000 Independence Avenue, SW, Washington, DC. You can find more information concerning public

participation in this rulemaking proceeding in section IV, "Public Comment," of this notice.

You can read the transcript of the public workshop and public comments received in the Freedom of Information Reading Room (Room No. 1E-190) at the U.S. Department of Energy, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC 20585, between the hours of 9:00 a.m. and 4:00 p.m., Monday through Friday, except Federal holidays.

You can obtain the latest information regarding the public workshop from the Office of Building Research and Standards world wide web site at the following address: [http://www.eren.doe.gov/buildings/codes\\_standards/index.htm](http://www.eren.doe.gov/buildings/codes_standards/index.htm).

**FOR FURTHER INFORMATION CONTACT:**

Cyrus H. Nasser, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Mail Station, EE-41, 1000 Independence Avenue, SW., Washington, D.C. 20585, (202) 586-9138, FAX (202) 586-4617, e-mail: [Cyrus.Nasser@ee.doe.gov](mailto:Cyrus.Nasser@ee.doe.gov), or Edward Levy, Esq., U.S. Department of Energy, Office of General Counsel, Mail Station, GC-72, 1000 Independence Avenue, SW., Washington, D.C. 20585, (202) 586-9507, e-mail: [Edward.Levy@hq.doe.gov](mailto:Edward.Levy@hq.doe.gov).

**SUPPLEMENTARY INFORMATION:**

The proposed rule incorporates, by reference, four test procedures contained in industry standards referenced by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. (ASHRAE) Standard 90.1 for commercial air conditioners and heat pumps. Three of these industry standards were published by the Air-Conditioning and Refrigeration Institute (ARI) and the fourth was jointly published by the ARI and the Canadian Standards Association (CSA). These four standards are as follows:

- Standard 210/240-94, "Unitary Air-Conditioning and Air-Source Heat Pump Equipment",
- Standard 340/360-93, "Commercial and Industrial Unitary Air-Conditioning and Heat Pump Equipment",
- Standard 320-98, "Water-Source Heat Pumps", and
- Standard 310/380-93 (which also has a CSA designation CSA-C744-93), "Standard for Package Terminal Air-Conditioners and Heat Pumps."

You can view copies of these standards at the Department of Energy's Freedom of Information Reading Room at the address stated above. You can also obtain copies of the ASHRAE and ARI Standards from the American

Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc., 1971 Tullie Circle, NE, Atlanta, GA 30329, <http://www.ashrae.org>; and the Air-Conditioning and Refrigeration Institute, 4301 North Fairfax Drive, Suite 425, Arlington, VA 22203, <http://www.ari.org>, respectively.

**I. Introduction**

- A. Authority
- B. Background
  - 1. General
  - 2. Issues Concerning Commercial Air Conditioners and Heat Pumps
- C. The Proposed Rule

**II. Discussion**

- A. General
- B. Commercial Air Conditioner and Heat Pump Definition and Scope of Coverage
  - 1. Coverage of Heating-Only Heat Pumps
  - 2. Coverage of Computer Room Air Conditioners
    - a. Background
    - b. Legislative history and position of ASHRAE Standard Project Committee 90.1
    - c. Functional differences between comfort cooling air conditioners and computer room air conditioners
    - d. ASHRAE Standard 127-88
    - e. October 1998 Workshop Discussion
    - f. Conclusion
  - 3. Coverage of Equipment with a Variable-Speed Drive
- C. Commercial Air Conditioner and Heat Pump Test Procedures for the Measurement of Energy Efficiency
  - 1. Test Procedures the Department Intends to Adopt
  - 2. Minimum External Static Pressure
  - 3. Test Procedure for Water-Source Heat Pumps

**III. Procedural Requirements**

- A. Review Under the National Environmental Policy Act of 1969
- B. Review Under Executive Order 12866, "Regulatory Planning and Review"
- C. Review Under the Regulatory Flexibility Act
- D. Review Under Executive Order 13132, "Federalism"
- E. Review Under Executive Order 12630, "Governmental Actions and Interference with Constitutionally Protected Property Rights"
- F. Review Under the Paperwork Reduction Act
- G. Review Under Executive Order 12988, "Civil Justice Reform"
- H. Review Under Section 32 of the Federal Energy Administration Act of 1974
- I. Review Under Unfunded Mandates Reform Act of 1995
- J. Review Under the Plain Language Directives
- K. Review Under the Treasury and General Government Appropriations Act, 1999

**IV. Public Comment**

- A. Written Comment Procedures
- B. Public Workshop
  - 1. Procedures for submitting requests to speak

2. Conduct of workshop  
C. Issues on which Comments are Requested

## I. Introduction

### A. Authority

Part B of Title III of the Energy Policy and Conservation Act (EPCA) of 1975, Pub. L. 94-163, as amended, by the National Energy Conservation Policy Act of 1978 (NECPA), Pub. L. 95-619, the National Appliance Energy Conservation Act of 1987 (NAECA), Pub. L. 100-12, the National Appliance Energy Conservation Amendments of 1988 (NAECA 1988), Pub. L. 100-357, and the Energy Policy Act of 1992 (EPACT), Pub. L. 102-486, established the "Energy Conservation Program for Consumer Products other than Automobiles." Part 3 of Title IV of NECPA amended EPCA to add "Energy Efficiency of Industrial Equipment," which included air conditioning equipment and other types of commercial products.

EPACT also amended EPCA with respect to commercial products. It provided definitions, test procedures, labeling provisions, energy conservation standards, and authority to require information and reports from manufacturers. See 42 U.S.C. 6311-6316. EPCA authorizes the Secretary of Energy to prescribe test procedures that are reasonably designed to produce results which reflect energy efficiency, energy use and estimated operating costs, and that are not unduly burdensome to conduct. 42 U.S.C. 6314.

With respect to some commercial products for which EPCA prescribes energy conservation standards, including commercial air conditioners and heat pumps, "the test procedures shall be those generally accepted industry testing procedures or rating procedures developed or recognized by the American Society of Heating, Refrigerating and Air Conditioning Engineers, as referenced in ASHRAE/IES Standard 90.1 and in effect on June 30, 1992." 42 U.S.C. 6314(a)(4)(A). Further, if such an industry testing or rating procedure gets amended, DOE must revise its test procedure to be consistent with the amendment, unless the Secretary determines, based on clear and convincing evidence, that to do so would not meet certain general requirements spelled out in the statute for test procedures. 42 U.S.C. 6314(a)(4)(B). Before prescribing any test procedures for commercial products, the Secretary must publish them in the **Federal Register** and afford interested persons at least 45 days to present data, views and arguments. 42 U.S.C. 6314(b). Effective 360 days after

a test procedure rule applicable to a covered commercial product, such as a commercial air conditioner and heat pump, is prescribed, no manufacturer, distributor, retailer or private labeler may make any representation in writing or in broadcast advertisement respecting the energy consumption or cost of energy consumed by such product, unless it has been tested in accordance with the prescribed procedure and such representation fairly discloses the results of the testing. 42 U.S.C. 6314(d). Finally, EPACT extends certain powers, originally granted to the Secretary under NAECA, to require manufacturers of products covered by this proposed rule to submit information and reports for a variety of purposes, including insuring compliance with requirements. See 42 U.S.C. 6316(a).

### B. Background

#### 1. General

The Department of Energy has an energy conservation program for consumer products, and a few commercial products, conducted under Part B of Title III of EPCA, 42 U.S.C. 6291-6309. Under EPCA, this program essentially consists of four parts: Test procedures, Federal energy conservation standards, labeling, and certification and enforcement procedures. The Federal Trade Commission (FTC) is responsible for labeling, and we implement the remainder of the program as codified in Title 10 of the Code of Federal Regulations, Part 430—Energy Conservation Program for Consumer Products.

Since 10 CFR Part 430 covers primarily consumer products, which differ from commercial and industrial products, we created a new Part 431 (10 CFR Part 431) in the Code of Federal Regulations, entitled "Energy Conservation Program for Commercial and Industrial Equipment," to implement DOE's program for most commercial and industrial products covered under EPCA. These will include commercial heating, air conditioning and water heating products. This new program will consist of: Test procedures, Federal energy conservation standards, labeling, and certification and enforcement procedures. EPCA directs DOE, rather than the FTC, to administer the statute's efficiency labeling provisions for these commercial products.

On April 14 and 15, 1998, we convened a public workshop to solicit views and information from interested parties that would aid in the development of rules for commercial heating, air conditioning and water

heating products. We requested comment on a number of specific issues, including issues related to test procedures for commercial products, as well as the most cost effective and reliable regimes for sampling, certification and enforcement. Statements during the public workshop and written comments that were received afterwards helped refine the issues involved in this rulemaking and provided useful information contributing to their resolution. We convened a second public workshop on October 18, 1998, to obtain comments on the issues as they had been refined, and on approaches presented by the National Institute of Standards and Technology (NIST) for resolving them.

#### 2. Issues Concerning Commercial Air Conditioners and Heat Pumps

During the April 1998 workshop, we sought comments on the following issue regarding test procedures for commercial air conditioners and heat pumps:

(1) Does the current test procedure for commercial air conditioners and heat pumps adequately specify the external static pressures?

Attendees at the April 1998 workshop provided comments and input on this issue. Section II, Discussion, will cover it in more detail. The workshop participants also raised the following additional major issues (which are numbered continuously with the first issue):

(2) Are heating-only heat pumps covered products?

(3) Are computer room air conditioners covered products?

(4) What should be the test procedures for water-source heat pumps?

After the April 1998 workshop, we worked towards addressing the identified issues for commercial air conditioners and heat pumps. A set of recommendations resulted from that work, and NIST developed a summary report of the recommendations. The summary report formed the basis for discussions during the October 1998 workshop, which enabled us to elicit further views and information from interested parties. The summary report included draft rule language for commercial air conditioners and heat pumps. We received additional comments at the second workshop. The following additional issue, raised in a letter to the Department after the October 1998 workshop, is also numbered continuously with the prior issues:

(5) What should be the test procedures for equipment with variable-speed drives?

### C. The Proposed Rule

Today's proposed rule incorporates (1) energy efficiency test procedures for commercial air conditioners and heat pumps, (2) definitions that clarify EPCA's coverage of these products, and (3) energy conservation standards prescribed by EPCA. In preparing these proposals, we have considered both oral and written comments, and have incorporated recommendations where appropriate. Section II contains the reasons for incorporating or not incorporating any significant recommendations.

## II. Discussion

### A. General

This section discusses the issues identified for commercial air conditioners and heat pumps. Subsection II-B addresses "Commercial Air Conditioner and Heat Pump Definitions and Scope of Coverage," and subsection II-C addresses "Commercial Air Conditioner and Heat Pump Test Procedures for the Measurement of Energy Efficiency."

### B. Commercial Air Conditioner and Heat Pump Definitions and Scope of Coverage

#### 1. Coverage of Heating-Only Heat Pumps

During the April 1998 workshop the California Energy Commission (CEC) asked the Department to clarify whether heating-only heat pumps were covered by EPCA. During the October 1998 workshop, NIST recommended that we should not include heating-only heat pumps among the covered equipment. All workshop attendees who spoke on this issue supported this opinion.

All of the definitions in EPCA indicate that commercial air conditioners and heat pumps covered by EPCA must have a cooling function. Large and small "package air-conditioning and heating equipment" are limited to "unitary central air conditioners and central air-conditioning heat pumps," and EPCA categorizes all of them by cooling capacity. (42 U.S.C. 6311(8)-(9)). Also, EPCA defines "package terminal heat pump" as a package terminal air conditioner that utilizes a reverse cycle as the prime method of providing heat. (42 U.S.C. 6311(10)). Furthermore, the equation for the minimum coefficient of performance for the package terminal heat pump involves the energy

efficiency ratio for cooling. (42 U.S.C. 6313(a)(3)(B)).

We further believe that to construe EPCA as excluding heating-only heat pumps from coverage would have no significant impact on national energy consumption. According to information provided by representatives of major Heating, Ventilating and Air Conditioning (HVAC) manufacturers and ARI during the April 1998 and October 1998 workshops, although a small number of heating-only heat pumps, mostly hydronic systems, are marketed in Europe, none are now available, or expected to be available any time soon in the United States.

Accordingly, today's proposed rule excludes heating-only heat pumps.

#### 2. Coverage of Computer Room Air Conditioners

a. *Background:* At the April 1998 workshop, the CEC asked for clarification of whether computer room air conditioners are covered equipment under EPCA, or whether they are exempt from efficiency standards.

In subsequent written comments, CEC contends that EPCA indeed covers computer room air conditioners. CEC maintains that nothing in the EPACT language suggests that equipment currently marketed as computer room air-conditioning equipment can be excluded from the scope of the statute. CEC also maintains that we can not exclude this equipment on the basis of either terminology used by those who market it or the primary market into which the equipment is sold.

CEC has administered a certification program for all air-conditioners, including computer room air conditioners, since 1977. For nearly a decade after the program started, manufacturers certified computer room air conditioners to CEC using the same test method as used for conventional central air-conditioning equipment. Manufacturers had to test this product on the basis of ARI Standard 210/240, which is referenced by ASHRAE Standard 90.1. Subsequently, CEC allowed manufacturers to certify it on the basis of ANSI/ASHRAE Standard 127, "Method of Testing for Rating Computer and Data Processing Room Unitary Air-Conditioners." CEC tested a few computer room air conditioners according to both these standards and stipulated the minimum EER levels that would need to be met if equipment is tested using ASHRAE Standard 127-88. CEC selected the minimum EER levels for ASHRAE Standard 127-88 testing, such that they represent equivalent energy efficiency to the efficiency levels required under the ARI standard. In

April 1998, CEC had 637 certified computer room air conditioners on file.

b. *Legislative history and position of ASHRAE Standard Project Committee 90.1:* The Report that accompanied the House of Representatives version of EPACT (House Report) states that the law "amends the existing law [EPCA] to set minimum energy efficiency standards for electric air-conditioning, electric heating, and gas heating equipment \* \* \* intended for use in commercial buildings." H.R. Rep. No. 474, 102d Cong. 2d Sess., pt. 1, at 175 (1992). Thus, it appears that the statute is not concerned, for example, with energy used in industrial processes.

The House Report also points out that the efficiency standards specified in the bill "were developed by \* \* \* [ASHRAE] in ASHRAE Standard 90.1." This indicates that the efficiency standards in EPACT for commercial products have the same scope as the standards in ASHRAE 90.1. ASHRAE Standard 90.1-1989 neither discussed computer room air conditioners nor referred to ASHRAE Standard 127-88. However, the ASHRAE Standard 90.1 committee has discussed the coverage of computer room air conditioners during past meetings, including a September 1998 interim meeting. The committee decided that Standard 90.1 does not cover computer room air conditioners since the primary function of computer room air conditioners is to provide cooling for equipment (*i.e.*, computers) rather than for human comfort. This determination is consistent with the Title, Purpose, and Scope of the Standard, which was revised in 1997 to state that the Standard does not apply to "equipment and portions of building systems that use energy primarily to provide for industrial, manufacturing or commercial processes."

In sum, the House Report, the direct reliance of the EPACT legislation on ASHRAE Standard 90.1, the scope of the Standard, and the position of the Standard 90.1 committee regarding computer room air conditioners, all support the conclusion that computer room air conditioners are not covered by EPACT.

c. *Functional differences between comfort cooling air conditioners and computer room air conditioners:* While the basic design and many of the vital components of computer room air conditioners are the same as those of conventional air conditioners, there are certain important feature differences. The most common temperature setting for computer room air conditioners is 72°F and the most common relative humidity setting is 50%. In addition to producing the desired cooling effect,

computer room air conditioners may humidify or dehumidify the air and then, if necessary, reheat it. Computer room air conditioners achieve dehumidification by cooling the air even under conditions when the temperature alone does not warrant it. This may push the space temperature below the set point, and thus may require correction by reheating the air. The coils are usually larger, and so is the air flow rate, typically 425–500 cfm/ton as compared to 400 cfm/ton for conventional air conditioners. These features differentiating computer room air conditioners from conventional air conditioners are also reflected in ASHRAE Standard 127–88, discussed below, which was developed for testing computer room air conditioners.

d. *ASHRAE Standard 127–88*: ASHRAE developed ASHRAE Standard 127–88, “Method of Testing for Rating Computer and Data Processing Room Unitary Air-Conditioners.” The American National Standard Institute (ANSI) approved ASHRAE Standard 127–88, which indicates recognition of the national consensus reached during development of the Standard.

ASHRAE Standard 127–88 is not referenced by ASHRAE Standard 90.1. Several differences exist between ASHRAE Standard 127–88 and the ARI test procedure standards for commercial air-conditioning and heating equipment that are referenced by ASHRAE Standard 90.1. The following, for example, is a list of differences between ASHRAE Standard 127–88 and ARI Standard 210/240–1994:

i. ASHRAE Standard 127–88 specifies standard rating conditions for the cooling system, the reheating system, and the humidification system. ARI Standard 210/240 does not specify conditions for reheating and humidification rating. Therefore, the ARI standard can not accommodate testing for all the functions that computer room air conditioners may provide.

ii. ASHRAE Standard 127–88 specifies an indoor air temperature of 72°F dry bulb and a wet bulb temperature of 60°F. ARI Standard 210/240–94 specifies an 80°F dry bulb temperature and a wet bulb temperature of 67°F. Since the typical operating indoor temperature for computer room air conditioners is set at 72°F, mandating the ARI test method with 80°F indoor air temperature would most likely result in computer room air conditioners being optimized at the 80°F indoor temperature. A system optimized at 80°F will not perform optimally at the 72°F indoor temperature, leading to wasted energy if

computer room air conditioners are tested under ARI Standard 210/240.

iii. ASHRAE Standard 127–88 does not impose restrictions on the indoor-side air quantity. ARI Standard 210/240 limits the indoor-side air quantity to 37.5 scfm per 1000 Btu/h. The limit on the indoor-side air quantity limits to some degree the sensible heat ratio (the ratio of the sensible capacity to the total capacity), minimizes the possibility of condensate carry over from the evaporator coil, and prevents noise generation in the duct system. It appears that the sensible heat ratio, condensate carry over, and duct noise issues are not as significant for computer room air conditioners as for conventional air conditioners.

iv. ASHRAE Standard 127–88 prescribes two different levels of external resistance for the total delivered air for systems that are intended for use with field-installed ducts. These two levels are 0.3 in. of water external pressure for air conditioners with standard cooling capacity less than 60,000 Btu/h, and 0.5 in. of water for systems with capacities equal to and above 60,000 Btu/h. ARI Standard 210/240–94 prescribes five different values of the minimum external pressure, one for each of five specified cooling capacities up to 135,000 Btu/h (ARI Standard 210/240–94, Table 6). Consequently, different external static pressures are used during tests in the two methods. For example, for a cooling capacity of 70,000 Btu/h, the ARI standard prescribes a minimum external resistance of 0.2[0] in. of water, while the ASHRAE standard stipulates 0.5 in. of water. It appears that computer room air conditioners may experience a higher external static pressure in a typical installation than conventional air conditioners, and that the ASHRAE standard reflects this difference.

Similar differences also exist between ASHRAE Standard 127–88 and ARI standards 340/360 and 320–93. The last three differences lead to different energy efficiency ratios (EER) when using ASHRAE Standard 127–88 and the ARI standards. The difference in the specified indoor dry bulb temperature (72°F vs. 80°F) has the dominating effect, which results in EERs from the ASHRAE Standard 127–88 test having lower values than those obtained from tests according to the ARI test procedures.

Because of being referenced in ASHRAE Standard 90.1, the foregoing ARI standards are the EPCA test procedures for testing commercial air-conditioning equipment. But as just discussed, these standards are not best suited for testing and rating computer

room air conditioners. On the other hand, the consensus standard for performing such testing and rating, ASHRAE Standard 127–88, is not referenced in Standard 90.1 and, therefore, is not prescribed by EPCA. The omission from EPCA of a test procedure for computer room air conditioners provides further support for the conclusion that this product is not covered by the statute.

e. *October 1998 Workshop Discussion*: The workshop participants also discussed the coverage of computer room air conditioners. Except for the CEC, all the participants took the position that computer room air conditioners is not a covered product under EPCA.

f. *Conclusion*: Based on the above considerations, our view is that computer room air conditioners are not currently covered by EPCA within the definition of commercial package air-conditioning and heating equipment (section 343(8)–(9) of EPCA, 42 U.S.C. 6311(8)–(9)). If some of the above circumstances were to change, however—if, for example, ASHRAE Standard 90.1 were to incorporate efficiency standards and test procedures for this product or the product was to become widely used for conventional air conditioning applications—the Department might re-visit this issue.

### 3. Coverage of Equipment with a Variable-Speed Drive

We received a written comment after the October 1998 workshop from Laclede Gas Company, which requested that a minimum energy efficiency standard be formulated for variable speed cooling equipment. The comment contended that the significant market penetration of this type of equipment mandates minimum energy efficiency standards. We believe the intent of the comment is to request establishment of efficiency standards and performance descriptors that would address part load performance of commercial equipment.

Sections 342(a)(1), (2), and (3) of EPCA set forth efficiency standards and performance descriptors for cooling equipment. U.S.C. 6313(a)(1), (2), and (3). Pursuant to these sections, only small commercial, air-cooled package air-conditioning equipment having cooling capacity less than 65,000 Btu/h have to meet a prescribed minimum Seasonal Energy Efficiency Ratio (SEER) which accounts for part load performance. For those systems that also have a heating function (*i.e.*, heat pumps), a minimum Heating Seasonal Performance Factor (HSPF) is prescribed. For all other equipment, EPCA only mandates efficiency

descriptors that involve a steady-state operation and does not refer to any descriptors based on part load performance.

With regard to efficiency standards, the purpose of this proposed rule is to incorporate the requirements currently imposed by EPCA. Today's proposal, therefore, incorporates standards for part load performance only in these instances where EPCA prescribes such standards. To the extent that EPCA does not prescribe efficiency standards for the part load performance of a product, it is beyond the scope of this rulemaking to do so.

### *C. Commercial Air Conditioner and Heat Pump Test Procedures for the Measurement of Energy Efficiency*

EPCA requires that the testing procedures for measuring the efficiency of commercial air conditioners and heat pumps must be those generally accepted industry testing procedures or rating procedures that were developed or are recognized by the American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc., as referenced in ASHRAE/IES Standard 90.1 and that were in effect on June 30, 1992. Also, if such an industry test procedure or rating procedure for commercial air conditioner or heat pump is amended, the Secretary must adopt such revisions unless the Secretary determines that to do so would not produce test results which reflect energy efficiency, energy use, and estimated operating costs, or that the procedures would be unduly burdensome to conduct.

#### 1. Test Procedures the Department Intends to Adopt

ASHRAE Standard 90.1–1989 was in effect on June 30, 1992, and referenced four industry test standards that apply to commercial air conditioners and heat pumps. Three of these industry standards were published by the Air-Conditioning and Refrigeration Institute (ARI) and the fourth was jointly published by the ARI and the Canadian Standards Association (CSA). The current versions of the four standards are as follows:

- ARI Standard 210/240–94, “Unitary Air-Conditioning and Air-Source Heat Pump Equipment;”
- ARI Standard 340/360–93, “Commercial and Industrial Unitary Air-Conditioning and Heat Pump Equipment;”
- ARI Standard 320–98, “Water-Source Heat Pumps;” and
- ARI Standard 310/380–93 (which also has a CSA designation CSA–C744–

93), “Standard for Package Terminal Air-Conditioners and Heat Pumps.”

These current versions of the four standards require the same test methods and calculation procedures as do the versions that were referenced by ASHRAE Standard 90.1–1989. These new versions of the ARI standards have better availability than the older standards and are referenced for convenience of the parties affected by the rule.

Today's proposed rule reflects our intent to adopt the amended ARI standards, in accordance with section 343(a)(4)(B) of EPCA, 42 U.S.C. 6314(a)(4)(B). The Department does not intend to determine that any of these amendments to the ARI standards contains a test procedure that is either unduly burdensome to conduct or not reasonably designed to reflect the energy efficiency of commercial air conditioners and heat pumps.

#### 2. Minimum External Static Pressure

ARI Standard 210/240–94, ARI Standard 340/360–93 and ARI Standard 320–93 specify the minimum external static pressures to test commercial air-conditioning and heating equipment with indoor fans and field-installed ducts. The standards prescribe the minimum pressures in a table which lists the levels of external resistance by system capacity (appearing in Table 6 in ARI Standard 210/240–94, Table 2B in ARI Standard 340/360, and Table 2 in ARI Standard 320–93.) The standards prescribe larger values of minimum external resistance for larger-capacity systems based on the assumption that larger systems would be connected to longer duct systems with more bends and obstructions. Before the April 1998 workshop, we had the concern that external pressures specified by the ARI standards would be lower than values that one generally encounters in commercial buildings. This could lead to a potentially overstated efficiency rating. Consequently, we raised this issue for discussion at the April 1998 workshop.

None of the participants at the April 1998 workshop shared our concern regarding the minimum external static pressure specified in the ARI standards, and several participants spoke in support of not changing the current test requirements. They observed that: (1) Actual static pressure varied among building sites, so any single specification could not be fully representative; (2) the present test procedures—ARI Standard 210/240–94, ARI Standard 340/360–93 and ARI Standard 320–98—provide consistency for purposes of comparing equipment;

(3) the differences in static pressure would primarily affect the energy consumption of the indoor air circulating fan, which represents a very small fraction of the total energy consumed by the unit, so the effect of changing the pressure specification on the energy efficiency would be minimal; and (4) because an increase in the pressure specification, above the levels in the ARI test procedures, would likely result in *some* reduction in rated efficiencies, if the DOE test procedures were to contain such an increase manufacturers would have to re-test and re-rate their products, and incur testing and marketing costs as a consequence.

Section 343(a) of EPCA, 42 U.S.C. 6314(a), provides in essence that the test procedures under EPCA for measuring the efficiency of commercial air conditioners and heat pumps shall be industry test procedures developed or recognized by ARI or ASHRAE, and that DOE has limited authority to adopt other test procedures for these products. Indeed, it can be argued that because the external static pressures in the ARI standards have not changed since June 1992, DOE has virtually no power to change them. See EPCA Section 343(a)(4)(B)–(C), 42 U.S.C. 6314(a)(4)(B)–(C).

In view of the above, we have decided not to propose any changes in the minimum static pressures. We believe that if we were developing from scratch a test procedure for commercial air-conditioning and heating equipment, inclusion of static pressures higher than those in the existing test procedures might well be warranted. But the reasons for retaining the pressure specifications in the existing test procedures have considerable merit, and to some extent offset any benefits of making a change at this point. Our limited authority to alter the existing test procedures provides a further reason not to make such a change at this point.

#### 3. Test Procedure for Water-Source Heat Pumps

In ASHRAE Standard 90.1–1999, ASHRAE amended Standard 90.1's provisions for water source heat pumps by both changing the level of the applicable efficiency standards and changing the referenced test procedure from ARI Standard 320, “Water-Source Heat Pumps,” to the International Standards Organization (ISO) Standard 13256–1, “Water-Source Heat Pumps—Testing and Rating for Performance—Part 1: Water-to-Air and Brine-to-Air Heat Pumps.” Under the amendments, the new efficiency levels will go into effect on October 29, 2001, and ISO

Standard 13256-1 will be used to measure compliance with those levels. Prior to that time, ARI Standard 320 will remain in force under Standard 90.1 to measure compliance with existing efficiency levels for water source heat pumps. Recently, the Department has become aware that ARI has changed its certification program for water-source heat pumps to reference ISO Standard 13256-1 as the test procedure used in its program.

As discussed above, we intend to prescribe ARI Standard 320-98 as the DOE test procedure for water-source heat pumps, in the final rule in this proceeding. This is the test procedure that is currently in place under ASHRAE Standard 90.1. We also intend to address DOE adoption of the ISO test procedure, to replace ARI 320-98, in a subsequent proceeding.

Nevertheless, in light of ASHRAE's adoption in Standard 90.1-1999 of ISO Standard 13256-1, as well as ARI's actions, we are also considering adoption in the final rule in this proceeding of ISO Standard 13256-1, instead of ASHRAE Standard 320, as the DOE test procedure for water source heat pumps. We would like to receive comment on that issue. In particular, we would like to receive results of testing the same products using the two test procedures, to compare efficiency differences of the two test procedures. We will decide whether to adopt ISO Standard 13256-1 in the final rule as the DOE test procedure for water-source heat pumps after reviewing this data, and after addressing any technical, legal and procedural issues and concerns about its immediate adoption.

### III. Procedural Requirements

#### A. Review Under the National Environmental Policy Act of 1969

EPCA prescribes energy efficiency standards and test procedures for commercial products, and in today's rule, we propose to implement these requirements for commercial air conditioners and heat pumps. We have reviewed the proposed rule under the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. 4321 *et seq.*, the regulations of the Council on Environmental Quality, 40 CFR parts 1500-1508, our regulations for compliance with NEPA, 10 CFR Part 1021, and the Secretarial Policy on the National Environmental Policy Act (June 1994). Implementation of the proposed rule would not result in environmental impacts. We have therefore determined that the proposed rule is covered under the Categorical Exclusion found at paragraph A6 of

appendix A to subpart D of the Department's Regulations, which applies to rulemakings that are strictly procedural. Accordingly, neither an environmental assessment nor an environmental impact statement is required.

#### B. Review Under Executive Order 12866, "Regulatory Planning and Review"

Today's proposed rule has been determined not to be a "significant regulatory action," as defined in section 3(f) of Executive Order 12866, "Regulatory Planning and Review." 58 FR 51735 (October 4, 1993). Accordingly, this action was not subject to review under the Executive Order by the Office of Information and Regulatory Affairs.

#### C. Review Under the Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980, 5 U.S.C. 603, requires the preparation of an initial regulatory flexibility analysis for every rule which, by law, the agency must propose for public comment, unless the agency certifies that the rule, if promulgated, will not have a significant economic impact on a substantial number of small entities. A regulatory flexibility analysis examines the impact of the rule on small entities and considers alternative ways of reducing negative impacts.

The Small Business Administration considers an entity to be a small business if, together with its affiliates, it employs fewer than a threshold number of workers specified in 13 CFR Part 121. The threshold number for SIC classification 3585, which includes air conditioners and heat pumps, is 750. We estimate that approximately 31 firms manufacture covered commercial air conditioners and heat pumps, and of these, 14 are considered small businesses.

EPCA establishes efficiency standards for covered commercial equipment and requires us to prescribe test procedures that are accepted by industry and referenced in ASHRAE Standard 90.1. As EPCA specifies the standards and test procedures incorporated in today's proposed rule, any costs of complying with them are imposed by EPCA and not the rule. Moreover, today's proposed rule simply codifies testing procedures that are already generally employed by manufacturers, both large and small.

The cost of meeting the requirements of today's proposed rule will depend on the number of basic models a manufacturer produces and the number of these models that do not comply with the efficiency standards imposed by EPCA and would consequently need to

be redesigned or removed from the market. Since the efficiency standards have been in force by statute since 1994, we expect that a negligible number of products presently manufactured would need to be redesigned or discontinued. The cost of performing the proposed test procedures depends on unit size, but could amount to several thousands of dollars per basic model. To the extent that manufacturers must already test their products for efficiency to assure that they meet the existing statutory efficiency standards, or for any other reason, they will not incur new costs in complying with today's proposed rule. We believe that any significant economic impact will fall only on those firms which do not now routinely test their products. We further believe that testing is a widely accepted practice, and that companies that do not test are rare and do not represent a substantial number of small entities.

We have no discretion to apply different requirements to small manufacturers. EPCA mandates uniform standards and test procedures for commercial products. In this regard, it is noteworthy that although EPCA contains a "small manufacturer exemption" for consumer products (42 U.S.C. 6295 (t)), it includes no such exemption for commercial and industrial products.

Based on the above, DOE certifies that the proposed rule would not impose a significant impact on a substantial number of small businesses.

#### D. Review Under Executive Order 13132, "Federalism"

Executive Order 13132 (64 FR 43255, August 4, 1999) imposes certain requirements on agencies formulating and implementing policies or regulations that preempt State law or that have federalism implications. Agencies are required to examine the constitutional and statutory authority supporting any action that would limit the policymaking discretion of the States and carefully assess the necessity for such actions. The proposed rule published today would not regulate the States. The proposed rule would primarily codify energy efficiency standards and test procedures already established in EPCA for commercial air conditioners and heat pumps. We have determined that today's proposed rule would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. No further action is required by Executive Order 13132.

*E. Review Under Executive Order 12630, "Governmental Actions and Interference with Constitutionally Protected Property Rights"*

We have determined under Executive Order 12630, "Governmental Actions and Interference with Constitutionally Protected Property Rights," 52 FR 8859 (March 18, 1988), that this proposed regulation would not result in any takings which might require compensation under the Fifth Amendment to the United States Constitution.

*F. Review Under the Paperwork Reduction Act*

No new collection of information is imposed by this proposed rule. Accordingly, no clearance by the Office of Management and Budget is required under the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*).

*G. Review Under Executive Order 12988, "Civil Justice Reform"*

With respect to the review of existing regulations and the promulgation of new regulations, Section 3(a) of Executive Order 12988, "Civil Justice Reform," 61 FR 4729 (February 7, 1996), imposes on executive agencies the general duty to adhere to the following requirements: (1) Eliminate drafting errors and ambiguity; (2) write regulations to minimize litigation; and (3) provide a clear legal standard for affected conduct rather than a general standard and promote simplification and burden reduction. With regard to the review required by Section 3(a), Section 3(b) of the Executive Order specifically requires that Executive agencies make every reasonable effort to ensure that the regulation: (1) Clearly specifies the preemptive effect, if any; (2) clearly specifies any effect on existing Federal law or regulation; (3) provide a clear legal standard for affected conduct while promoting simplification and burden reduction; (4) specifies the retroactive effect, if any; (5) adequately defines key terms; and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. Section 3(c) of the Executive Order requires agencies to review regulations in light of applicable standards Section 3(a) and Section 3(b) to determine whether they are met or it is unreasonable to meet one or more of them.

We reviewed today's proposed rule under the standards of Section 3 of the Executive Order and determined that, to the extent permitted by law, it meets the requirements of those standards.

*H. Review Under Section 32 of the Federal Energy Administration Act of 1974*

Under section 301 of the Department of Energy Organization Act (Pub. L. 95-91), we must comply with section 32 of the Federal Energy Administration Act of 1974, as amended by the Federal Energy Administration Authorization Act of 1977. 15 U.S.C. 788. Section 32 provides in part that, where a proposed rule contains or involves use of commercial standards, the notice of proposed rulemaking must inform the public of the use and background of such standards.

The rule proposed in this notice incorporates certain commercial standards which EPCA requires to be used. These include testing standards referenced by ASHRAE Standard 90.1-1989 for the measurement of steady state thermal efficiency of commercial air conditioners and heat pumps. Because we have very limited discretion to depart from the standards referenced in ASHRAE/IES 90.1, Section 32 of the FEAA does not apply to them.

*I. Review Under Unfunded Mandates Reform Act of 1995*

Section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act") requires that we prepare an impact assessment before promulgating a rule that includes a Federal mandate that may result in expenditure by state, local, and tribal governments, in the aggregate, or by the private sector, of \$100 million or more in any one year. The impact assessment must include: (i) Identification of the Federal law under which the rule is promulgated; (ii) a qualitative and quantitative assessment of anticipated costs and benefits of the Federal mandate and an analysis of the extent to which such costs to state, local, and tribal governments may be paid with Federal financial assistance; (iii) if feasible, estimates of the future compliance costs and of any disproportionate budgetary effects the mandate has on particular regions, communities, non-Federal units of government, or sectors of the economy; (iv) if feasible, estimates of the effect on the national economy; and (v) a description of our prior consultation with elected representatives of state, local, and tribal governments and a summary and evaluation of the comments and concerns presented.

We have determined that the action proposed today does not include a Federal mandate that may result in estimated costs of \$100 million or more to state, local or to tribal governments in

the aggregate or to the private sector. Therefore, the requirements of Sections 203 and 204 of the Unfunded Mandates Act do not apply to this action.

*J. Review Under the Plain Language Directives*

The President's Memorandum on "Plain Language in Government Writing," 63 FR 31885 (June 10, 1998) directs each Federal agency to write all published rulemaking documents in plain language. The Memorandum includes general guidance on what constitutes "plain language." Plain language requirements will vary from one document to another, depending on the intended audience, but all plain language documents should be logically organized and clearly written.

We have tried to make this proposed rule easy to understand. We are also requesting suggestions on how to improve its readability further.

*K. Review Under the Treasury and General Government Appropriations Act, 1999*

Section 654 of the Treasury and General Government Appropriations Act, 1999 (Pub. L. No. 105-277) requires federal agencies to issue a Family Policymaking Assessment for any proposed rule or policy that may affect family well-being. Today's proposal would not have any impact on the autonomy or the integrity of the family as an institution. Accordingly, DOE has concluded that it is not necessary to prepare a Family Policymaking Assessment.

## IV. Public Comment

### A. Written Comment Procedures

We invite interested persons to participate in the proposed rulemaking by submitting data, comments, or information with respect to the issues set forth in today's rule to Ms. Brenda Edward-Jones, at the address indicated at the beginning of the notice. We will consider all submittals received by the date specified at the beginning of this notice in developing the final rule.

According to 10 CFR 1004.11, any person submitting information which he or she believes to be confidential and exempt by law from public disclosure should submit one complete copy of the document and ten (10) copies, if possible, from which the information believed to be confidential has been deleted. We will make our own determination with regard to the confidential status of the information and treat it according to our determination.

Factors of interest to us, when evaluating requests to treat as

confidential information that has been submitted, include:

- (1) A description of the items;
- (2) An indication as to whether and why such items are customarily treated as confidential within the industry;
- (3) Whether the information is generally known by or available from other sources;
- (4) Whether the information has previously been made available to others without obligation concerning its confidentiality;
- (5) An explanation of the competitive injury to the submitting person which would result from public disclosure;
- (6) An indication as to when such information might lose its confidential character due to the passage of time; and
- (7) Why disclosure of the information would be contrary to the public interest.

### B. Public Workshop

#### 1. Procedures for Submitting Requests to Speak

You will find the time and place of the public workshop listed at the beginning of this notice of proposed rulemaking. We invite any person who has an interest in today's notice of proposed rulemaking, or who is a representative of a group or class of persons that has an interest in these proposed issues, to make a request for an opportunity to make an oral presentation. If you would like to attend the public workshop, please notify Ms. Brenda Edwards-Jones at (202) 586-2945. You may hand deliver requests to speak to the address indicated at the beginning of this notice between the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday, except Federal holidays, or send them by mail.

The person making the request should state why he or she, either individually or as a representative of a group or class of persons, is an appropriate spokesperson, briefly describe the nature of the interest in the rulemaking, and provide a telephone number for contact. We request each person selected to be heard to submit an advance copy of his or her statement at least two weeks prior to the date of this workshop as indicated at the beginning of this notice. At our discretion, we may permit any person who cannot do this to participate if that person has made alternative arrangements with the Office of Building Research and Standards in advance. The request to give an oral presentation should ask for such alternative arrangements.

#### 2. Conduct of Workshop

The Department will designate a Department official to preside at the

workshop and we may also use a professional facilitator to facilitate discussion. The workshop will not be a judicial or evidentiary-type hearing, but the Department will conduct it in accordance with 5 U.S.C. 553 and Section 336 of the Act and a court reporter will be present to record the transcript of the workshop. We reserve the right to schedule the presentations by workshop participants, and to establish the procedures governing the conduct of the workshop.

The Department will permit each participant to make a prepared general statement, limited to five (5) minutes, prior to the discussion of specific topics. The general statement should not address these specific topics, but may cover any other issues pertinent to this rulemaking. The Department will permit other participants to briefly comment on any general statements. We will divide the remainder of the hearing into segments, with each segment consisting of one or more of the following specific topics covered by this notice:

Commercial Air Conditioner and Heat Pump Definition and Scope of Coverage

- Coverage of Heating-Only Heat Pumps
- Coverage of Computer Room Air Conditioners
- Coverage of Equipment with a Variable-Speed Drive

Commercial Air Conditioner and Heat Pump Test Procedures for the Measurement of Energy Efficiency

- Test Procedures the Department Intends to Adopt
- Minimum External Static Pressure
- Test Procedure for Water-Source Heat Pumps

The Department will introduce each topic with a brief summary of the relevant provisions of the proposed rule, and the significant issues involved. We will then permit participants in the hearing to make a prepared statement limited to five (5) minutes on that topic. At the end of all prepared statements on a topic, the Department will permit each participant to briefly clarify his or her statement and comment on statements made by others. Participants should be prepared to answer questions by us and by other participants concerning these issues. Our representatives may also ask questions of participants concerning other matters relevant to the hearing. The total cumulative amount of time allowed for each participant to make prepared statements will be 20 minutes.

The official conducting the hearing will accept additional comments or questions from those attending, as time

permits. The presiding official will announce any further procedural rules, or modification of the above procedures, needed for the proper conduct of the hearing.

We will make the entire record of this rulemaking, including the transcript, available for inspection in the Department's Freedom of Information Reading Room. Any person may purchase a copy of the transcript from the transcribing reporter.

### C. Issues on Which Comments Are Requested

We are interested in receiving comments and/or data concerning the feasibility, workability and appropriateness of the test procedures proposed in today's rulemaking. Also, we welcome discussion on improvements or alternatives to the proposed approaches. We also invite comments on how to make this proposed rule easier to understand. For example:

- Are the requirements in the rule clearly stated?
- Have we organized the material to suit your needs, or would a different organization be better?
- Can we improve the rule's format?

### List of Subjects in 10 CFR Part 431

Administrative practice and procedure, Commercial products, Energy conservation, Incorporation by reference.

Issued in Washington, DC, on June 9, 2000.

**Dan W. Reicher,**

*Assistant Secretary, Energy Efficiency and Renewable Energy.*

For the reasons set forth in the preamble, Title 10, Part 431 of the Code of Federal Regulations is proposed to be amended as set forth below:

### PART 431—ENERGY EFFICIENCY PROGRAM FOR CERTAIN COMMERCIAL AND INDUSTRIAL EQUIPMENT

1. The authority citation for Part 431 continues to read as follows:

**Authority:** 42 U.S.C. 6311-6316.

2. Subpart J is added to read as follows:

#### Subpart J—Commercial Air Conditioners and Heat Pumps

Sec.

431.251 Purpose and scope.

431.252 Definitions for commercial air conditioners and heat pumps.

#### Test Procedures

431.261 Materials incorporated by reference.

431.262 Uniform test method for the measurement of energy efficiency of

small and large commercial package air conditioning and heating equipment, packaged terminal air conditioners, and packaged terminal heat pumps.

#### Energy Efficiency Standards

431.271 Energy efficiency standards and effective dates.

#### Subpart J—Commercial Air Conditioners and Heat Pumps

##### § 431.251 Purpose and scope.

This subpart contains energy conservation requirements for certain commercial air conditioners and heat pumps, pursuant to Part C of Title III of the Energy Policy and Conservation Act, as amended, 42 U.S.C. 6311–6316.

##### § 431.252 Definitions for commercial air conditioners and heat pumps.

For purposes of subparts I through P of this part, terms are defined as provided for elsewhere in this subpart, in section 340 of the Act, and as follows—

*Coefficient of Performance, or COP* means the ratio of the produced cooling effect of an air conditioner or heat pump (or its produced heating effect, depending on the mode of operation) to its net work input, when both the cooling (or heating) effect and the net work input are expressed in identical units of measurement.

*Energy Efficiency Ratio, or EER*, means the ratio of the produced cooling effect of an air conditioner or heat pump to its net work input, expressed in Btu/watt-hour.

*Heating seasonal performance factor or HSPF* means the total heating output of a central air-conditioning heat pump during its normal annual usage period for heating, expressed in Btu's and divided by the total electric power input, expressed in watt-hours, during the same period.

*Large commercial package air-conditioning and heating equipment* means air-cooled, water-cooled, evaporatively cooled, or water-source (not including ground water-source) electrically operated, unitary central air conditioners and central air-conditioning heat pumps for commercial application that are rated at or above 135,000 Btu per hour and below 240,000 Btu per hour (cooling capacity), and that are commercial HVAC & WH products.

*Packaged terminal air conditioner* means a wall sleeve and a separate un-encased combination of heating and cooling assemblies specified by the

builder and intended for mounting through the wall, and that is a commercial HVAC & WH product. It includes a prime source of refrigeration, separable outdoor louvers, forced ventilation, and heating availability by builder's choice of hot water, steam, or electricity.

*Packaged terminal heat pump* means a packaged terminal air conditioner that utilizes reverse cycle refrigeration as its prime heat source, that has a supplementary heat source available, with the choice of hot water, steam, or electric resistant heat, and that is a commercial HVAC & WH product.

*Seasonal energy efficiency ratio or SEER* means the total cooling output of a central air conditioner or central air-conditioning heat pump, expressed in Btu's, during its normal annual usage period for cooling and divided by the total electric power input, expressed in watt-hours, during the same period.

*Single package unit* means any central air conditioner or central air-conditioning heat pump in which all the major assemblies are enclosed in one cabinet.

*Small commercial package air-conditioning and heating equipment* means air-cooled, water-cooled, evaporatively cooled, or water-source (not including ground water-source) electrically operated, unitary central air conditioners and central air-conditioning heat pumps for commercial application which are rated below 135,000 Btu per hour (cooling capacity), and which are commercial HVAC & WH products.

*Split system* means any central air conditioner or central air conditioning heat pump in which one or more of the major assemblies are separate from the others.

#### Test Procedures

##### § 431.261 Materials incorporated by reference.

(a) The Department incorporates by reference the following test procedures which are not otherwise set forth in this part 431. The Director of the Federal Register has approved the material listed in paragraph (b) of this section for incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR Part 51. Any subsequent amendment to this material by the standard-setting organization will not affect the DOE test procedures unless and until DOE amends its test procedures. The Department

incorporates the material as it exists on the date of the approval and a notice of any change in the material will be published in the **Federal Register**.

(b) *List of test procedures incorporated by reference.*

(1) Air-Conditioning and Refrigeration Institute (ARI) Standard 210/240–94 published in 1994, "Unitary Air-Conditioning and Air-Source Heat Pump Equipment."

(2) ARI Standard 310/380–93 published in 1993, "Standard for Package Terminal Air-Conditioners and Heat Pumps."

(3) ARI Standard 320–98 published in 1998, "Water-Source Heat Pumps."

(4) ARI Standard 340/360–93 published in 1993, "Commercial and Industrial Unitary Air-Conditioning and Air-Source Heat Pump Equipment."

(c) *Availability of references.*

(1) *Inspection of test procedures.* You may inspect the test procedures incorporated by reference at:

(i) Office of the Federal Register, 800 North Capitol Street, NW., Suite 700, Washington, DC.

(ii) U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Hearings and Dockets, "Test Procedures and Efficiency Standards for Commercial Air Conditioners and Heat Pumps," Docket No. EE–RM/TP–99–460, 1000 Independence Avenue, SW., Washington, DC 20585.

(2) *Obtaining copies of Standards.* You may obtain a copy of the ARI standards from the Air-Conditioning and Refrigeration Institute, 4301 North Fairfax Drive, Suite 425, Arlington, VA 22203, <http://www.ari.org/>.

##### § 431.262 Uniform test method for the measurement of energy efficiency of small and large commercial package air conditioning and heating equipment, packaged terminal air conditioners, and packaged terminal heat pumps.

(a) *Scope.* This section contains test procedures you must follow if, pursuant to EPCA, you are measuring the energy efficiency of small and large commercial package air-conditioning and heating equipment, packaged terminal air conditioners and packaged terminal heat pumps.

(b) *Testing and Calculations.* For each covered product, determine the energy efficiency by conducting the test procedure listed in the rightmost column of the following table for that product, category, cooling capacity, and energy efficiency descriptor:

Product	Category	Cooling capacity	Energy efficiency descriptor	Use tests, conditions and procedures in
Small Commercial Packaged Air Conditioning and Heating Equipment.	Air Cooled, 3 Phase, AC and HP.	<65,000 Btu/h .....	SEER ..... HSPF .....	ARI Standard 210/240-94 ARI Standard 210/240-94
	Air Cooled AC and HP	≥65,000 Btu/h and <135,000 Btu/h.	EER .....	ARI Standard 210/240-94
	Water Cooled AC .....	<135,000 Btu/h .....	COP .....	ARI Standard 210/240-94
	Evaporatively Cooled AC.	<135,000 Btu/h .....	EER .....	ARI Standard 210/240-94
Large Commercial Packaged Air Conditioning and Heating Equipment.	Water-Source HP .....	<135,000 Btu/h .....	EER .....	ARI Standard 320-98
	Air Cooled AC and HP	≥135,000 Btu/h and <240,000 Btu/h.	COP .....	ARI Standard 320-98
	Water Cooled AC .....	≥135,000 Btu/h and <240,000 Btu/h.	EER .....	ARI Standard 340/360-93
Packaged Terminal Air Conditioners and Heat Pumps.	Evaporatively Cooled AC.	≥135,000 Btu/h and <240,000 Btu/h.	EER .....	ARI Standard 340/360-93
	AC and HP .....	All .....	EER .....	ARI Standard 310/380-93
			COP .....	ARI Standard 310/380-93

**Energy Efficiency Standards**

**§ 431.271 Energy efficiency standards and effective dates.**

Each commercial air conditioner or heat pump manufactured on or after

January 1, 1994 (except for large commercial package air-conditioning and heating equipment, for which the effective date is January 1, 1995) must meet the applicable minimum energy

efficiency standard level(s) set forth in Tables 1 and 2 of this section.

**TABLE 1.—MINIMUM COOLING EFFICIENCY LEVELS**

Product	Category	Cooling capacity	Subcategory	Efficiency Level <sup>1</sup>
Small Commercial Packaged Air Conditioning and Heating Equipment.	Air Cooled, 3 Phase ..	≥65,000 Btu/h .....	Split System ..... Single Package .....	SEER = 10.0 SEER = 9.7
	Air Cooled .....	≥65,000 Btu/h and ≥135,000 Btu/h.	All .....	EER = 8.9
	Water Cooled Evaporatively Cooled, and Water-Source.	≥65,000 Btu/h .....	All .....	EER = 9.3 EER = 10.5
Large Commercial Packaged Air Conditioning and Heating Equipment.	Air Cooled .....	65,000 Btu/h and ≥135,000 Btu/h.	All .....	EER = 8.5
	Water-Cooled, and Evaporatively Cooled.	≥135,000 Btu/h and ≥240,000 Btu/h.	All .....	EER = 8.5
Packaged Terminal Air Conditioners and Heat Pumps.	All .....	135,000 Btu/h and ≥240,000 Btu/h.	All .....	EER = 9.6
		≥7,000 Btu/h .....	All .....	EER = 8.88 EER = 10.0 - (0.16 × capacity [in thousands of Btu/h at 95° outdoor dry-bulb temperature]) EER = 7.6
		≥7,000 Btu/h and 15,000 Btu/h.		
		≥15,000 Btu/h .....		

<sup>1</sup> All EER values must be rated at 95°F outdoor dry-bulb temperature for air-cooled products and evaporatively-cooled products and at 85°F entering water temperature for water-source and water-cooled products.

**TABLE 2.—MINIMUM HEATING EFFICIENCY LEVELS**

Product	Category	Cooling capacity	Subcategory	Efficiency Level <sup>2</sup>
Small Commercial Packaged Air Conditioning and Heating Equipment.	Air Cooled, 3 Phase ..	≥65,000 Btu/h .....	Split System ..... Single Package .....	HSPF = 6.8 HSPF = 6.6
	Water-Source .....	≥135,000 Btu/h .....	Split System and Single Package.	COP = 3.8
	Air Cooled .....	65,000 Btu/h and ≥135,000 Btu/h.	All .....	COP = 3.0

TABLE 2.—MINIMUM HEATING EFFICIENCY LEVELS—Continued

Product	Category	Cooling capacity	Subcategory	Efficiency Level <sup>2</sup>
Large Commercial Packaged Air Conditioning and Heating Equipment.	Air Cooled .....	135,000 Btu/h and ≥240,000 Btu/h.	Split System and Single Package.	COP = 2.9
Packaged Terminal Heat Pumps.	All .....	All .....	All .....	COP = 1.3+(0.16 × the applicable minimum cooling EER prescribed in Table 1—Minimum Cooling Efficiency Levels)

<sup>2</sup> All COP values must be rated at 47°F outdoor dry-bulb temperature for air-cooled products and evaporatively-cooled products and at 70°F entering water temperature for water-source products.

[FR Doc. 00–19723 Filed 8–8–00; 8:45 am]  
 BILLING CODE 6450–01–P

**DEPARTMENT OF ENERGY**

**Office of Energy Efficiency and Renewable Energy**

**10 CFR Part 431**

[Docket No. EE–RM/TP–99–470]

RIN 1904–AB02

**Energy Efficiency Program for Certain Commercial and Industrial Equipment: Test Procedures and Efficiency Standards for Commercial Packaged Boilers**

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

**ACTION:** Notice of proposed rulemaking and public hearing.

**SUMMARY:** The Energy Policy and Conservation Act, as amended (EPCA), establishes energy efficiency standards and test procedures for certain commercial products, including commercial packaged boilers. In today’s proposed rule, the Department of Energy (we, DOE, or the Department) proposes regulations to implement the standards and test procedures for these boilers.

**DATES:** The Department will accept comments, data, and information regarding the proposed rule until October 23, 2000. Please submit ten (10) copies. In addition, we request that you provide an electronic copy (3½” diskette) of the comments in WordPerfect™ 8.

We will hold a public hearing (workshop) on September 20, 2000, in Washington, DC. Please send requests to speak at the workshop so that we receive them by 4 p.m., September 6, 2000. Send ten (10) copies of your statements for the public workshop so that we receive them by 4 p.m., September 13, 2000. We also request a computer diskette (WordPerfect™ 8) of each statement.

**ADDRESSES:** Please submit written comments, oral statements, and requests to speak at the workshop to Brenda Edwards-Jones, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, EE–41, Docket No. EE–RM/TP–99–470, 1000 Independence Avenue, SW., Washington, DC 20585. You may send email to: [brenda.edwards-jones@ee.doe.gov](mailto:brenda.edwards-jones@ee.doe.gov).

**SUPPLEMENTARY INFORMATION:** The workshop will begin at 9 a.m., on September 20, 2000, in Room 1E–245 at the U.S. Department of Energy, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC. You can find more information concerning public participation in this rulemaking proceeding in section IV, “Public Comment,” of this notice of proposed rulemaking.

You can read the transcript of the public workshop and public comments received in the Freedom of Information Reading Room (Room No. 1E–190) at the U.S. Department of Energy, Forrestal Building, 1000 Independence Avenue, SW., Washington, DC 20585, between the hours of 9:00 a.m. and 4:00 p.m., Monday through Friday, except Federal holidays.

You can obtain the latest information regarding the public workshop from the Office of Building Research and Standards world wide web site at the following address: [http://www.eren.doe.gov/buildings/codes\\_standards/index.htm](http://www.eren.doe.gov/buildings/codes_standards/index.htm)

**FOR FURTHER INFORMATION CONTACT:** Cyrus H. Nasser, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Mail Station, EE–41, 1000 Independence Avenue, SW., Washington, DC 20585, (202) 586–9138, FAX (202) 586–4617, e-mail: [Cyrus.Nasser@ee.doe.gov](mailto:Cyrus.Nasser@ee.doe.gov), or Edward Levy, Esq., U.S. Department of Energy, Office of General Counsel, Mail Station, GC–72, 1000 Independence Avenue, SW., Washington, DC 20585, (202) 586–9507, e-mail: [Edward.Levy@hq.doe.gov](mailto:Edward.Levy@hq.doe.gov).

**SUPPLEMENTARY INFORMATION:** The proposed rule incorporates, by reference, the test procedures contained

in industry standards referenced by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc. (ASHRAE) Standard 90.1 for commercial packaged boilers. Those industry standards are: American National Standards Institute (ANSI) Standard Z21.13a–1993, “Gas-Fired Low Pressure Steam and Hot Water Boilers;” The Hydronics Institute (HI) Standard “Testing and Rating Standard for Heating Boilers,” 6th Edition, 1989; and American Society of Mechanical Engineers (ASME) PTC 4.1–1964/RA–1991, “Power Test Codes for Steam Generating Units.” The proposed rule would also incorporate by reference, ASHRAE Standard 103–1993, “Method of Testing for Annual Fuel Utilization Efficiency of Residential Central Furnaces and Boilers,” for its test procedure with respect to condensing boilers.

You can view copies of these standards at the Department of Energy’s Freedom of Information Reading Room at the address stated above. You can also obtain copies of the ASHRAE, ANSI, HI, and ASME Standards from the American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc., 1971 Tullie Circle, NE, Atlanta, GA 30329, Internet URL: <http://www.ashrae.org/book/bookshop.htm>; Global Engineering Documents, 15 Inverness Way East, Englewood, CO 80112 or Internet URL: <http://webstore.ansi.org/ansidocstore/>; the Hydronics Institute Inc., 35 Russo Place, Berkeley Heights, NJ 07922, Internet URL: <http://www.gamanet.org/publist/hydroordr.htm>; and the American Society of Mechanical Engineers, 345 East 47th Street, New York, NY 10017, Internet URL: <http://www.asmeny.org/catalog>, respectively.

**I. Introduction**

- A. Authority
- B. Background
  - 1. General
  - 2. Issues Concerning Packaged Boilers
- C. The Proposed Rule