

## Department of Energy

## § 431.92

losses) must be set. (Incorporated by reference, see § 431.85)

### ENERGY EFFICIENCY STANDARDS

#### § 431.87 Energy conservation standards and their effective dates.

Each manufacturer of a commercial packaged boiler manufactured on or after January 1, 1994, must meet the following energy efficiency standard levels:

(a) For a gas-fired packaged boiler with a capacity (rated maximum input) of 300,000 Btu/hr or more, the combustion efficiency at the maximum rated capacity must be not less than 80 percent.

(b) For an oil-fired packaged boiler with a capacity (rated maximum input) of 300,000 Btu/hr or more, the combustion efficiency at the maximum rated capacity must be not less than 83 percent.

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

SOURCE: 69 FR 61969, Oct. 21, 2004, unless otherwise noted.

#### § 431.91 Purpose and scope.

This subpart specifies test procedures and energy conservation standards 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. 6311–6317.

[69 FR 61969, Oct. 21, 2004, as amended at 70 FR 60415, Oct. 18, 2005]

#### § 431.92 Definitions concerning commercial air conditioners and heat pumps.

The following definitions apply for purposes of this subpart F, and of subparts J through M of this part. Any words or terms not defined in this section or elsewhere in this part shall be defined as provided in 42 U.S.C. 6311.

*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.

*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.

*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 commercial package air-conditioning and heating equipment that is rated—

(1) At or above 135,000 Btu per hour; and

(2) Below 240,000 Btu per hour (cooling capacity).

*Packaged terminal air conditioner* means a wall sleeve and a separate unencased combination of heating and cooling assemblies specified by the builder and intended for mounting through the wall, and that is industrial equipment. 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 industrial equipment.

*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.

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*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 commercial package air-conditioning and heating equipment that is rated below 135,000 Btu per hour (cooling capacity).

*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.

*Very large commercial package air-conditioning and heating equipment* means commercial package air-conditioning and heating equipment that is rated—

- (1) At or above 240,000 Btu per hour; and
- (2) Below 760,000 Btu per hour (cooling capacity).

[69 FR 61969, Oct. 21, 2004, as amended at 70 FR 60415, Oct. 18, 2005]

### TEST PROCEDURES

#### § 431.95 Materials incorporated by reference.

(a) The Department incorporates by reference the following test procedures into subpart F of 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 Department test procedures unless and until the Department 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 210/240-2003 published in 2003, "Unitary Air-Conditioning and Air-Source Heat Pump Equipment," IBR approved for § 431.96.

(2) ARI Standard 340/360-2000 published in 2001, "Commercial and Industrial Unitary Air-Conditioning and

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Heat Pump Equipment," IBR approved for § 431.96.

(3) International Organization for Standardization (ISO) International Standard ISO 13256-1 published in 1998, "Water-source heat pumps—Testing and rating for performance—Part 1: Water-to-air and brine-to-air heat pumps," IBR approved for § 431.96.

(4) ARI Standard 310/380-2004 (CSA-C744-04) published in 2004, "Standard for Packaged Terminal Air-Conditioners and Heat Pumps," IBR approved for § 431.96.

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

(i) National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

(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 test procedures.* 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/>. You can purchase a copy of the ISO Standard 13256-1 from the International Organization for Standardization, Case Postale 56, CH-1211, Geneva 20, Switzerland. <http://www.iso.ch/> or from the American National Standards Institute, 25 West 43rd Street, New York, New York 10036.

#### § 431.96 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 any small or large commercial package air-conditioning