shall be the calculated value obtained by entering that compartment's TDA or volume into the standard equation in paragraph (d)(1) of this section for that compartment's equipment class. Measure the calculated daily energy consumption (CDEC) or total daily energy consumption (TDEC) for the entire case:

(i) For remote condensing commercial hybrid refrigerators, hybrid freezers, hybrid refrigerator-freezers, and non-hybrid refrigerator-freezers, where two or more independent condensing units each separately cool only one compartment, measure the total refrigeration load of each compartment separately according to the ARI Standard 1200–2006 test procedure (incorporated by reference, see §431.63). Calculate compressor energy consumption (CEC) for each compartment using Table 1 in ARI Standard 1200–2006 using the saturated evaporator temperature for that compartment. The CDEC for the entire case shall be the sum of the CEC for each compartment, fan energy consumption (FEC), lighting energy consumption (LEC), anti-condensate energy consumption (AEC), defrost energy consumption (DEC), and condensate evaporator pan energy consumption (PEC) (as measured in ARI Standard 1200–2006).

(ii) For remote condensing commercial hybrid refrigerators, hybrid freezers, hybrid refrigerator-freezers, and non-hybrid refrigerator-freezers, where two or more compartments are cooled collectively by one condensing unit, measure the total refrigeration load of the entire case according to the ARI Standard 1200–2006 test procedure (incorporated by reference, see §431.63). Calculate a weighted saturated evaporator temperature for the entire case by:

(A) Multiplying the saturated evaporator temperature of each compartment by the volume of that compartment (as measured in ARI Standard 1200–2006),

(B) Summing the resulting values for all compartments, and

(C) Dividing the resulting total by the total volume of all compartments.

Calculate the CEC for the entire case using Table 1 in ARI Standard 1200–2006 (incorporated by reference, see §431.63), using the total refrigeration load and the weighted average saturated evaporator temperature. The CDEC for the entire case shall be the sum of the CEC, FEC, LEC, AEC, DEC, and PEC.

(iii) For self-contained commercial hybrid refrigerators, hybrid freezers, hybrid refrigerator-freezers, and non-hybrid refrigerator-freezers, measure the TDEC for the entire case according to the ARI Standard 1200–2006 test procedure (incorporated by reference, see §431.63).

(3) For remote-condensing and self-contained wedge cases, measure the CDEC or TDEC according to the ARI Standard 1200–2006 test procedure (incorporated by reference, see §431.63). The MDEC for each model shall be the amount derived by incorporating into the standards equation in paragraph (d)(1) of this section for the appropriate equipment class a value for the TDA that is the product of:

(i) The vertical height of the air-curtain (or glass in a transparent door) and (ii) The largest overall width of the case, when viewed from the front.

[70 FR 60414, Oct. 18, 2005, as amended at 74 FR 1140, Jan. 9, 2009]

Subpart D—Commercial Warm Air Furnaces

SOURCE: 69 FR 61939, Oct. 21, 2004, unless otherwise noted.

§ 431.71 Purpose and scope.

This subpart contains energy conservation requirements for commercial warm air furnaces, pursuant to Part C of Title III of the Energy Policy and Conservation Act, as amended, 42 U.S.C. 6311–6317.

[69 FR 61939, Oct. 21, 2004, as amended at 70 FR 60415, Oct. 18, 2005]

§ 431.72 Definitions concerning commercial warm air furnaces.

The following definitions apply for purposes of this subpart D, 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 Section 340 of the Act.

Basic model means all units of a given type of covered product (or class thereof) manufactured by one manufacturer, having the same primary energy source, and which have essentially identical electrical, physical, and functional (or hydraulic) characteristics that affect energy consumption, energy efficiency, water consumption, or water efficiency.

Commercial warm air furnace means a warm air furnace that is industrial equipment, and that has a capacity (rated maximum input) of 225,000 Btu per hour or more.

Thermal efficiency for a commercial warm air furnace equals 100 percent minus percent flue loss determined using test procedures prescribed under § 431.76.

Warm air furnace means a self-contained oil-fired or gas-fired furnace designed to supply heated air through ducts to spaces that require it and includes combination warm air furnace/electric air conditioning units but does not include unit heaters and duct furnaces.

[69 FR 61939, Oct. 21, 2004, as amended at 76 FR 12503, Mar. 7, 2011]

TEST PROCEDURES

§ 431.75 Materials incorporated by reference.

(a) *General.* DOE incorporates by reference the following test procedures into subpart D of part 431. The materials listed have been approved for incorporation by reference by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Any subsequent amendment to the listed materials by the standard-setting organization will not affect the DOE regulations unless and until such regulations are amended by DOE. Materials are incorporated as they exist on the date of the approval, and a notice of any changes in the materials will be published in the FEDERAL REGISTER. All approved materials are available for inspection at the 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_federalregulations/ibr_locations.html.* Also, these materials are available for inspection at U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Program, 6th Floor, 950 L'Enfant Plaza SW., Washington, DC 20024, (202) 586–2945, or go to: *http://www1.eere.energy.gov/buildings/appliance_standards/.* The referenced test procedure standards are listed below by relevant standard-setting organization, along with information on how to obtain copies from those sources.

(b) *ANSI.* American National Standards Institute. 25 W. 43rd Street, 4th Floor, New York, NY 10036, (212) 642–4900, or go to: *http://www.ansi.org.*

(1) ANSI Z21.47–1998, (''ANSI Z21.47–1998''), ''*Gas-Fired Central Furnaces,*'' approved by ANSI on June 9, 1998, IBR approved for § 431.76.

(2) ANSI Z21.47–2006, (''ANSI Z21.47–2006''), ''*Gas-Fired Central Furnaces,*'' approved on July 27, 2006, IBR approved for § 431.76.

(3) Reserved.

(c) *ASHRAE.* American Society of Heating, Refrigerating and Air-Conditioning Engineers Inc., 1791 Tullie Circle, NE., Atlanta, Georgia 30329, (404) 636–8400, or go to: *http://www.ashrae.org.*

(1) ASHRAE Standard 103–1993, sections 7.2.2.4, 7.8, 9.2, and 11.3.7, ''*Method of Testing for Annual Fuel Utilization Efficiency of Residential Central Furnaces and Boilers,*'' approved on June 26, 1993, IBR approved for § 431.76.

(2) [Reserved].

(d) *HI.* Hydronics Institute Division of AHRI, 35 Russo Place, P.O. Box 218, Berkeley Heights, NJ 07922, (703) 600–0350, or go to: *http://www.ahrinet.org/hydronics+institute+section.aspx.*

(1) HI BTS–2000, sections 8.2.2, 11.1.4, 11.1.5, and 11.1.6.2, ''*Method to Determine Efficiency of Commercial Space Heating Boilers,*'' published January 2001, IBR approved for § 431.76.

(2) [Reserved].

(e) *UL.* Underwriters Laboratories, Inc., 333 Pfingsten Road, Northbrook, IL 60062, (847) 272–8800, or go to: *http://www.ul.com.*

(1) UL 727 (UL 727–1994), ''*Standard for Safety Oil-Fired Central Furnaces,*'' published on August 1, 1994, IBR approved for § 431.76.