#### §431.63

greater than 66 inches and is intended to serve as a counter for transactions between sales personnel and customers. "Service over the counter, self-contained, medium temperature commercial refrigerator", also defined in this section, is one specific equipment class within the service over counter equipment family.

Service over the counter, self-contained, medium temperature commercial refrigerator or SOC-SC-M means a commercial refrigerator—

- (1) That operates at temperatures at or above 32 °F:
- (2) With a self-contained condensing unit:
- (3) Equipped with sliding or hinged doors in the back intended for use by sales personnel, and with glass or other transparent material in the front for displaying merchandise; and
- (4) That has a height not greater than 66 inches and is intended to serve as a counter for transactions between sales personnel and customers.

Test package means a packaged material that is used as a standard product temperature-measuring device.

Transparent means greater than or equal to 45 percent light transmittance, as determined in accordance with the ASTM Standard E 1084–86 (Reapproved 2009), (incorporated by reference, see § 431.63) at normal incidence and in the intended direction of viewing.

Vertical Closed means equipment with hinged or sliding doors and a door angle less than  $45^{\circ}$ .

Vertical Open means equipment without doors and an air-curtain angle greater than or equal to  $0^{\circ}$  and less than  $10^{\circ}$  from the vertical.

Wedge case means a commercial refrigerator, freezer, or refrigerator-freezer that forms the transition between two regularly shaped display cases.

[70 FR 60414, Oct. 18, 2005, as amended at 71 FR 71369, Dec. 8, 2006; 74 FR 1139, Jan. 9, 2009; 76 FR 12503, Mar. 7, 2011; 77 FR 10318, Feb. 21, 2012; 78 FR 62993, Oct. 23, 2013; 78 FR 79598, Dec. 31, 2013; 79 FR 22307, Apr. 21, 2014; 79 FR 17816, Mar. 28, 2014]

#### TEST PROCEDURES

### § 431.63 Materials incorporated by reference.

- (a) General. We incorporate by reference the following standards into subpart C of part 431. The material listed has 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 51. Any subsequent amendment to a standard by the standard-setting organization will not affect the DOE regulations unless and until amended by DOE. Material is incorporated 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. All approved material is 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 to http://www.archives.gov/federal register/code of federal regulations/ ibr locations.html. Also, this material is 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://  $www1.eere.energy.gov/buil\bar{d}ings/appli$ ance standards/. Standards can be obtained from the sources listed below.
- (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 /AHAM HRF-1-2004, Energy, Performance and Capacity of Household Refrigerators, Refrigerator-Freezers and Freezers, approved July 7, 2004, IBR approved for §431.64 and appendices A and B to subpart C to part 431.
- (2) AHAM HRF-1-2008 ("HRF-1-2008"), Association of Home Appliance Manufacturers, Energy and Internal Volume of Refrigerating Appliances (2008) including Errata to Energy and Internal Volume of Refrigerating Appliances, Correction Sheet issued November 17, 2009, IBR approved for §431.64 and appendices A and B to subpart C to part 431.
- (c) AHRI. Air-Conditioning, Heating, and Refrigeration Institute, 2111 Wilson Blvd., Suite 500, Arlington, VA 22201, (703) 524–8800, ahri@ahrinet.org, or

http://www.ahrinet.org/Content/ StandardsProgram 20.aspx.

- (1) ARI Standard 1200-2006, Performance Rating of Commercial Refrigerated Display Merchandisers and Storage Cabinets, 2006, IBR approved for §§ 431.64 and 431.66, and appendices A and B to subpart C of part 431.
- (2) AHRI Standard 1200 (I-P)-2010 ("AHRI Standard 1200 (I-P)-2010"), 2010 Standard for Performance Rating of Commercial Refrigerated Display Merchandisers and Storage Cabinets, 2010, IBR approved for §§ 431.64 and 431.66, and appendices A and B to subpart C of part 431.
- (d) ASHRAE. The American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc., 1971 Tullie Circle NE., Atlanta, GA 30329, or http://www.ashrae.org/.
- (1) ANSI/ASHRAE Standard 72–2005, (ASHRAE 72–2005), "Method of Testing Commercial Refrigerators and Freezers," Copyright 2005, IBR approved for §431.62, and appendices A and B to subpart C of part 431.
  - (2) [Reserved]
- (e) ASTM. ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428, (877) 909–2786, or go to http://www.astm.org/.
- (1) ASTM E 1084 (Reapproved 2009), "Standard Test Method for Solar Transmittance (Terrestrial) of Sheet Materials Using Sunlight," approved April 1, 2009, IBR approved for § 431.62.
  - (2) [Reserved]

[74 FR 1139, Jan. 9, 2009, as amended at 77 FR 10318, Feb. 21, 2012; 78 FR 62993, Oct. 23, 2013; 79 FR 22308, Apr. 21, 2014]

# § 431.64 Uniform test method for the measurement of energy consumption of commercial refrigerators, freezers, and refrigerator-freezers.

- (a) *Scope*. This section provides the test procedures for measuring, pursuant to EPCA, the daily energy consumption in kilowatt hours per day (kWh/day) for a given product category and volume or total display area of commercial refrigerators, freezers, and refrigerator-freezers.
- (b) Testing and calculations. Determine the daily energy consumption of each covered commercial refrigerator, freezer, or refrigerator-freezer by conducting the appropriate test procedure

set forth below, in appendix A or B to this subpart. The daily energy consumption of commercial refrigeration equipment shall be calculated using raw measured values and the final test results shall be reported in increments of 0.01 kWh/day.

[70 FR 60414, Oct. 18, 2005, as amended at 77 FR 10318, Feb. 21, 2012; 79 FR 22308, Apr. 21, 2014]

ENERGY CONSERVATION STANDARDS

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

- (a) In this section—
- (1) The term "AV" means the adjusted volume (ft³) (defined as  $1.63 \times 1.63 \times 1$
- (2) The term "V" means the chilled or frozen compartment volume (ft³) (as defined in the Association of Home Appliance Manufacturers Standard HRF1–1979).
- (3) For the purpose of paragraph (d) of this section, the term "TDA" means the total display area (ft²) of the case, as defined in ARI Standard 1200–2006, appendix D (incorporated by reference, see § 431.63). For the purpose of paragraph (e) of this section, the term "TDA" means the total display area (ft²) of the case, as defined in AHRI Standard 1200 (I-P)–2010, appendix D (incorporated by reference, see § 431.63).
- (b)(1) Each commercial refrigerator, freezer, and refrigerator-freezer with a self-contained condensing unit designed for holding temperature applications manufactured on or after January 1, 2010 and before March 27, 2017 shall have a daily energy consumption (in kilowatt-hours per day) that does not exceed the following:

Maximum daily energy con- sumption (kilowatt hours per day)	
0.10V + 2.04.	
0.12V + 3.34.	
0.40V + 1.38.	
0.75V + 4.10.	