

Product	Size	Energy conservation standard ^a (products manufactured on and after October 29, 2003) ^b	
		Minimum thermal efficiency	Maximum standby loss ^c
Gas-fired storage water heaters.	≤155,000 Btu/hr ...	80%	Q/800 + 110(V _m) ^{1/2} (Btu/hr)
	>155,000 Btu/hr ...	80%	Q/800 + 110(V _r) ^{1/2} (Btu/hr)
Oil-fired storage water heaters.	≤155,000 Btu/hr ...	78%	Q/800 + 110(V _m) ^{1/2} (Btu/hr)
	>155,000 Btu/hr ...	78%	Q/800 + 110(V _r) ^{1/2} (Btu/hr)
Gas-fired instantaneous water heaters and hot water supply boilers.	<10 gal	80%	N/A
	≥10 gal	80%	Q/800 + 110(V _m) ^{1/2} (Btu/hr)
Oil-fired instantaneous water heaters and hot water supply boilers.	<10 gal	80%	N/A
	≥10 gal	78%	Q/800 + 110(V _m) ^{1/2} (Btu/hr)

Product	Size	Minimum thermal insulation
Unfired hot water storage tank.	All	R–12.5

^a V_m is the measured storage volume and V_r is the rated volume, both in gallons. Q is the nameplate input rate in Btu/hr.
^b For hot water supply boilers with a capacity of less than 10 gallons: (1) the standards are mandatory for products manufactured on and after October 21, 2005, and (2) products manufactured prior to that date, and on or after October 23, 2003, must meet either the standards listed in this table or the applicable standards in Subpart E of this Part for a "commercial packaged boiler."
^c Water heaters and hot water supply boilers having more than 140 gallons of storage capacity need not meet the standby loss requirement if (1) the tank surface area is thermally insulated to R–12.5 or more, (2) a standing pilot light is not used and (3) for gas or oil-fired storage water heaters, they have a fire damper or fan assisted combustion.

[69 FR 61983, Oct. 21, 2004; 69 FR 63574, Nov. 2, 2004]

Subpart H—Automatic Commercial Ice Makers

SOURCE: 70 FR 60415, Oct. 18, 2005, unless otherwise noted.

§ 431.131 Purpose and scope.

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

§ 431.132 Definitions concerning automatic commercial ice makers.

Automatic commercial ice maker means a factory-made assembly (not necessarily shipped in 1 package) that—

- (1) Consists of a condensing unit and ice-making section operating as an in-

tegrated unit, with means for making and harvesting ice; and

- (2) May include means for storing ice, dispensing ice, or storing and dispensing ice.

Harvest rate means the amount of ice (at 32 degrees F) in pounds produced per 24 hours.

TEST PROCEDURES [RESERVED]

ENERGY CONSERVATION STANDARDS

§ 431.136 Energy conservation standards and their effective dates.

Each automatic commercial ice maker that produces cube type ice with capacities between 50 and 2500 pounds per 24-hour period when tested according to the test standard established in accordance with section 343 of EPCA (42 U.S.C. 6314) and is manufactured on or after January 1, 2010, shall meet the following standard levels:

Equipment type	Type of cooling	Harvest rate (lbs ice/24 hours)	Maximum energy use (kWh/100 lbs ice)	Maximum condenser water use* (gal/100 lbs ice)
Ice Making Head	Water	<500	7.80–0.0055H	200–0.022H.
Ice Making Head	Water	≥500 and <1436 ...	5.58–0.0011H	200–0.022H.
Ice Making Head	Water	≥1436	4.0	200–0.022H.
Ice Making Head	Air	<450	10.26–0.0086H	Not applicable.
Ice Making Head	Air	≥450	6.89–0.0011H	Not applicable.
Remote Condensing (but not remote compressor).	Air	<1000	8.85–0.0038H	Not applicable.
Remote Condensing (but not remote compressor).	Air	≥1000	5.1	Not applicable.

Equipment type	Type of cooling	Harvest rate (lbs ice/24 hours)	Maximum energy use (kWh/100 lbs ice)	Maximum condenser water use* (gal/100 lbs ice)
Remote Condensing and Remote Compressor.	Air	<934	8.85–0.0038H	Not applicable.
Remote Condensing and Remote Compressor.	Air	≥934	5.3	Not applicable.
Self Contained	Water	<200	11.40–0.019H	191–0.0315H.
Self Contained	Water	≥200	7.6	191–0.0315H.
Self Contained	Air	<175	18.0–0.0469H	Not applicable.
Self Contained	Air	≥175	9.8	Not applicable.

H Harvest rate in pounds per 24 hours.
 * Water use is for the condenser only and does not include potable water used to make ice.

[70 FR 60415, Oct. 18, 2005; 70 FR 61698, Oct. 25, 2005]

ENERGY CONSERVATION STANDARDS

Subpart I—Commercial Clothes Washers

SOURCE: 70 FR 60416, Oct. 18, 2005, unless otherwise noted.

§ 431.151 Purpose and scope.

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

§ 431.152 Definitions concerning commercial clothes washers.

Commercial clothes washer means a soft-mounted front-loading or soft-mounted top-loading clothes washer that—

- (1) Has a clothes container compartment that—
 - (i) For horizontal-axis clothes washers, is not more than 3.5 cubic feet; and
 - (ii) For vertical-axis clothes washers, is not more than 4.0 cubic feet; and
- (2) Is designed for use in—
 - (i) Applications in which the occupants of more than one household will be using the clothes washer, such as multi-family housing common areas and coin laundries; or
 - (ii) Other commercial applications.

TEST PROCEDURES

§ 431.154 Test procedures.

The test procedures for residential clothes washers in Appendix J1 to subpart B of part 430 of this title shall be used to test commercial clothes washers.

§ 431.156 Energy and water conservation standards and effective dates.

Each commercial clothes washer manufactured on or after January 1, 2007, shall have—

- (1) A modified energy factor of at least 1.26; and
- (2) A water consumption factor of not more than 9.5.

Subpart J—Provisions for Commercial HVAC & Water Heating Products

SOURCE: 69 FR 61941, Oct. 21, 2004, unless otherwise noted.

§ 431.171 Purpose and scope. [Reserved]

§ 431.172 Definitions.

The following definitions apply for purposes of subparts D through G and J through M of this part. Other terms in these subparts shall be as defined elsewhere in this Part and, if not defined in this part, shall have the meaning set forth in Section 340 of the Act.

Basic model means, with respect to a commercial HVAC & WH product, all units of such product, manufactured by one manufacturer, which have the same primary energy source and which do not have any differing electrical, physical, or functional characteristics that affect energy consumption.

Commercial HVAC & WH product means any small or large commercial package air-conditioning and heating equipment, packaged terminal air conditioner, packaged terminal heat pump, commercial packaged boiler, hot water supply boiler, commercial warm