

SSB 6840 - H COMM AMD

By Committee on Technology, Energy & Communications

ADOPTED 03/01/2006

1 Strike everything after the enacting clause and insert the
2 following:

3 "Sec. 1. RCW 19.260.020 and 2005 c 298 s 2 are each amended to
4 read as follows:

5 The definitions in this section apply throughout this chapter
6 unless the context clearly requires otherwise.

7 (1) "Automatic commercial ice cube machine" means a factory-made
8 assembly, not necessarily shipped in one package, consisting of a
9 condensing unit and ice-making section operating as an integrated unit
10 with means for making and harvesting ice cubes. It may also include
11 integrated components for storing or dispensing ice, or both.

12 (2) "Ballast" means a device used with an electric discharge lamp
13 to obtain necessary circuit conditions, such as voltage, current, and
14 waveform, for starting and operating the lamp.

15 (3) "Commercial clothes washer" means a soft mount horizontal or
16 vertical-axis clothes washer that: (a) Has a clothes container
17 compartment no greater than 3.5 cubic feet in the case of a horizontal-
18 axis product or no greater than 4.0 cubic feet in the case of a
19 vertical-axis product; and (b) is designed for use by more than one
20 household, such as in multifamily housing, apartments, or coin
21 laundries.

22 (4) "Commercial prerinse spray valve" means a handheld device
23 designed and marketed for use with commercial dishwashing and
24 warewashing equipment and that sprays water on dishes, flatware, and
25 other food service items for the purpose of removing food residue prior
26 to their cleaning.

27 (5)(a) "Commercial refrigerators and freezers" means refrigerators,
28 freezers, or refrigerator-freezers designed for use by commercial or
29 institutional facilities for the purpose of storing or merchandising
30 food products, beverages, or ice at specified temperatures that: (i)

1 Incorporate most components involved in the vapor-compression cycle and
2 the refrigerated compartment in a single cabinet; and (ii) may be
3 configured with either solid or transparent doors as a reach-in
4 cabinet, pass-through cabinet, roll-in cabinet, or roll-through
5 cabinet.

6 (b) "Commercial refrigerators and freezers" does not include: (i)
7 Products with 85 cubic feet or more of internal volume; (ii) walk-in
8 refrigerators or freezers; (iii) consumer products that are federally
9 regulated pursuant to 42 U.S.C. Sec. 6291 et seq.; (iv) products
10 without doors; or (v) freezers specifically designed for ice cream.

11 (6) "Compensation" means money or any other valuable thing,
12 regardless of form, received or to be received by a person for services
13 rendered.

14 (7) "Department" means the department of community, trade, and
15 economic development.

16 (8) "High-intensity discharge lamp" means a lamp in which light is
17 produced by the passage of an electric current through a vapor or gas,
18 and in which the light-producing arc is stabilized by bulb wall
19 temperature and the arc tube has a bulb wall loading in excess of three
20 watts per square centimeter.

21 ~~(9) ("Illuminated exit sign" means an internally illuminated sign
22 that is designed to be permanently fixed in place to identify a
23 building exit and consists of an electrically powered integral light
24 source that illuminates the legend "EXIT" and any directional
25 indicators and provides contrast between the legend, any directional
26 indicators, and the background.~~

27 ~~(10)(a) "Low voltage dry type distribution transformer" means a
28 distribution transformer that: (i) Has an input voltage of 600 volts
29 or less; (ii) is air cooled; (iii) does not use oil as a coolant; and
30 (iv) is rated for operation at a frequency of 60 hertz.~~

31 ~~(b) "Low voltage dry type transformer" does not include: (i)
32 Transformers with multiple voltage taps, with the highest voltage tap
33 equaling at least twenty percent more than the lowest voltage tap; or
34 (ii) transformers, such as those commonly known as drive transformers,
35 rectifier transformers, auto transformers, uninterruptible power system
36 transformers, impedance transformers, regulating transformers, sealed
37 and nonventilating transformers, machine tool transformers, welding~~

1 ~~transformers, grounding transformers, or testing transformers, that are~~
2 ~~designed to be used in a special purpose application and are unlikely~~
3 ~~to be used in general purpose applications.~~

4 ~~(11))~~ "Metal halide lamp" means a high-intensity discharge lamp in
5 which the major portion of the light is produced by radiation of metal
6 halides and their products of dissociation, possibly in combination
7 with metallic vapors.

8 ~~((12))~~ (10) "Metal halide lamp fixture" means a light fixture
9 designed to be operated with a metal halide lamp and a ballast for a
10 metal halide lamp.

11 ~~((13))~~ (11) "Pass-through cabinet" means a commercial
12 refrigerator or freezer with hinged or sliding doors on both the front
13 and rear of the unit.

14 ~~((14))~~ (12) "Probe-start metal halide ballast" means a ballast
15 used to operate metal halide lamps which does not contain an igniter
16 and which instead starts lamps by using a third starting electrode
17 "probe" in the arc tube.

18 ~~((15))~~ (13) "Reach-in cabinet" means a commercial refrigerator or
19 freezer with hinged or sliding doors or lids, but does not include
20 roll-in or roll-through cabinets or pass-through cabinets.

21 ~~((16))~~ (14)(a) "Roll-in cabinet" means a commercial refrigerator
22 or freezer with hinged or sliding doors that allow wheeled racks of
23 product to be rolled into the unit.

24 (b) "Roll-through cabinet" means a commercial refrigerator or
25 freezer with hinged or sliding doors on two sides of the cabinet that
26 allow wheeled racks of product to be rolled through the unit.

27 ~~((17))~~ (15)(a) "Single-voltage external AC to DC power supply"
28 means a device that: (i) Is designed to convert line voltage
29 alternating current input into lower voltage direct current output;
30 (ii) is able to convert to only one DC output voltage at a time; (iii)
31 is sold with, or intended to be used with, a separate end-use product
32 that constitutes the primary power load; (iv) is contained within a
33 separate physical enclosure from the end-use product; (v) is connected
34 to the end-use product via a removable or hard-wired male/female
35 electrical connection, cable, cord, or other wiring; and (vi) has a
36 nameplate output power less than or equal to 250 watts.

37 (b) "Single-voltage external AC to DC power supply" does not
38 include: (i) Products with batteries or battery packs that physically

1 attach directly to the power supply unit; (ii) products with a battery
2 chemistry or type selector switch and indicator light; or (iii)
3 products with a battery chemistry or type selector switch and a state
4 of charge meter.

5 ~~((+18+))~~ (16) "State-regulated incandescent reflector lamp" means
6 a lamp that is not colored or designed for rough or vibration service
7 applications, that has an inner reflective coating on the outer bulb to
8 direct the light, an E26 medium screw base, and a rated voltage or
9 voltage range that lies at least partially within 115 to 130 volts, and
10 that falls into one of the following categories:

11 (a) A bulged reflector or elliptical reflector bulb shape and which
12 has a diameter which equals or exceeds 2.25 inches;

13 (b) A reflector, parabolic aluminized reflector, or similar bulb
14 shape and which has a diameter of 2.25 to 2.75 inches.

15 ~~((+19) "Torchiere" means a portable electric lighting fixture with
16 a reflective bowl that directs light upward onto a ceiling so as to
17 produce indirect illumination on the surfaces below. "Torchiere" may
18 include downward directed lamps in addition to the upward, indirect
19 illumination.~~

20 ~~(20) "Traffic signal module" means a standard (a) 8 inch or 200 mm
21 or (b) 12 inch or 300 mm traffic signal indication, consisting of a
22 light source, a lens, and all other parts necessary for operation.~~

23 ~~(+21+))~~ (17) "Transformer" means a device consisting of two or more
24 coils of insulated wire and that is designed to transfer alternating
25 current by electromagnetic induction from one coil to another to change
26 the original voltage or current value.

27 ~~((+22+))~~ (18)(a) "Unit heater" means a self-contained, vented fan-
28 type commercial space heater that uses natural gas or propane, and that
29 is designed to be installed without ducts within a heated space.

30 (b) "Unit heater" does not include any products covered by federal
31 standards established pursuant to 42 U.S.C. Sec. 6291 et seq. or any
32 product that is a direct vent, forced flue heater with a sealed
33 combustion burner.

34 **Sec. 2.** RCW 19.260.030 and 2005 c 298 s 3 are each amended to read
35 as follows:

36 (1) This chapter applies to the following types of new products
37 sold, offered for sale, or installed in the state: (a) Automatic

1 commercial ice cube machines; (b) commercial clothes washers; (c)
 2 commercial prerinse spray valves; (d) commercial refrigerators and
 3 freezers; (e) ~~((illuminated exit signs; (f) low voltage dry type~~
 4 ~~distribution transformers; (g))~~ metal halide lamp fixtures; ~~((h))~~
 5 ~~(f)~~ single-voltage external AC to DC power supplies; ~~((i))~~ ~~(g)~~ state-
 6 regulated incandescent reflector lamps; ~~((j) torchieres; (k) traffic~~
 7 ~~signal modules;))~~ and ~~((l))~~ ~~(h)~~ unit heaters. This chapter applies
 8 equally to products whether they are sold, offered for sale, or
 9 installed as a stand-alone product or as a component of another
 10 product.

11 (2) This chapter does not apply to (a) new products manufactured in
 12 the state and sold outside the state, (b) new products manufactured
 13 outside the state and sold at wholesale inside the state for final
 14 retail sale and installation outside the state, (c) products installed
 15 in mobile manufactured homes at the time of construction~~((t,))~~ or (d)
 16 products designed expressly for installation and use in recreational
 17 vehicles.

18 **Sec. 3.** RCW 19.260.040 and 2005 c 298 s 4 are each amended to read
 19 as follows:

20 The legislature establishes the following minimum efficiency
 21 standards for the types of new products set forth in RCW 19.260.030.

22 (1)(a) Automatic commercial ice cube machines must have daily
 23 energy use and daily water use no greater than the applicable values in
 24 the following table:

25

Equipment type	Type of cooling	Harvest rate (lbs. ice/24 hrs.)	Maximum energy use (kWh/100 lbs.)	Maximum condenser water use (gallons/100 lbs. ice)
Ice-making head	water	<500	7.80 - .0055H	200 - .022H
		>=500<1436	5.58 - .0011H	200 - .022H
		>=1436	4.0	200 - .022H
Ice-making head	air	450	10.26 - .0086H	Not applicable
		>=450	6.89 - .0011H	Not applicable
Remote condensing but not remote compressor	air	<1000	8.85 - .0038	Not applicable
		>=1000	5.10	Not applicable

35

1	Remote condensing and remote compressor	air	<934	8.85 - .0038H	Not applicable
2			>=934	5.3	Not applicable
3	Self-contained models	water	<200	11.40 - .0190H	191 - .0315H
4			>=200	7.60	191 - .0315H
5	Self-contained models	air	<175	18.0 - .0469H	Not applicable
6			>=175	9.80	Not applicable

7 Where H= harvest rate in pounds per twenty-four hours which must be reported within 5% of the tested value.

8 "Maximum water use" applies only to water used for the condenser.

9 (b) For purposes of this section, automatic commercial ice cube
10 machines shall be tested in accordance with ARI 810-2003 test method as
11 published by the air-conditioning and refrigeration institute. Ice-
12 making heads include all automatic commercial ice cube machines that
13 are not split system ice makers or self-contained models as defined in
14 ARI 810-2003.

15 (2) Commercial clothes washers must have a minimum modified energy
16 factor of 1.26. For the purposes of this section, capacity and
17 modified energy factor are defined and measured in accordance with the
18 current federal test method for clothes washers as found at 10 C.F.R.
19 Sec. 430.23.

20 (3) Commercial prerinse spray valves must have a flow rate equal to
21 or less than 1.6 gallons per minute when measured in accordance with
22 the American society for testing and materials' "Standard Test Method
23 for Prerinse Spray Valves," ASTM F2324-03.

24 (4)(a) Commercial refrigerators and freezers must meet the
25 applicable requirements listed in the following table:

26	Equipment Type	Doors	Maximum Daily Energy Consumption (kWh)
27	Reach-in cabinets, pass-through cabinets, and roll-in or roll-through cabinets that are refrigerators	Solid	0.10V+ 2.04
28		Transparent	0.12V+ 3.34
29	Reach-in cabinets, pass-through cabinets, and roll-in or roll-through cabinets that are "pulldown" refrigerators	Transparent	.126V+ 3.51
32	Reach-in cabinets, pass-through cabinets, and roll-in or roll-through cabinets that are freezers	Solid	0.40V+ 1.38
33		Transparent	0.75V+ 4.10

1	Reach-in cabinets that are refrigerator-	Solid	0.27AV - 0.71
2	freezers		
3	with an AV of 5.19 or higher		

4 kWh= kilowatt hours
5 V= total volume (ft³)
6 AV= adjusted volume= [1.63 x freezer volume (ft³)]+ refrigerator volume (ft³)

7 (b) For purposes of this section, "pulldown" designates products
8 designed to take a fully stocked refrigerator with beverages at 90
9 degrees F and cool those beverages to a stable temperature of 38
10 degrees F within 12 hours or less. Daily energy consumption shall be
11 measured in accordance with the American national standards
12 institute/American society of heating, refrigerating and air-
13 conditioning engineers test method 117-2002, except that the back-
14 loading doors of pass-through and roll-through refrigerators and
15 freezers must remain closed throughout the test, and except that the
16 controls of all appliances must be adjusted to obtain the following
17 product temperatures.

18	Product or compartment type	Integrated average product temperature in degrees Fahrenheit
19	Refrigerator	38± 2
20	Freezer	0± 2

21 ~~(5) (Illuminated exit signs must have an input power demand of~~
22 ~~five watts or less per illuminated face. For the purposes of this~~
23 ~~section, input power demand is measured in accordance with the United~~
24 ~~States environmental protection agency's energy star exit sign~~
25 ~~program's conditions for testing, version 3.0. Illuminated exit signs~~
26 ~~must meet all applicable building and safety codes.~~

27 ~~(6)(a) Low voltage dry type distribution transformers shall have~~
28 ~~efficiencies not less than the applicable values in the following table~~
29 ~~when tested at thirty five percent of the rated output power:~~

30 Single Phase		30 Three Phase	
31 Rated power output in	31 Minimum	31 Rated power output in	31 Minimum
32 kVa	32 efficiency %	32 kVa	32 efficiency %
33 ≥15 ————— <25	33 97.7	33 ≥15 ————— <30	33 97.0

1	≥ 25 ————— < 37.5	98.0	≥ 30 ————— < 45	97.5
2	≥ 37.5 ————— < 50	98.2	≥ 45 ————— < 75	97.7
3	≥ 50 ————— < 75	98.3	≥ 75 ————— < 112.5	98.0
4	≥ 75 ————— < 100	98.5	≥ 112.5 ————— < 150	98.2
5	≥ 100 ————— < 167	98.6	≥ 150 ————— < 225	98.3
6	≥ 167 ————— < 250	98.7	≥ 225 ————— < 300	98.5
7	≥ 250 ————— < 333	98.8	≥ 300 ————— < 500	98.6
8	333	98.9	≥ 500 ————— < 750	98.7
9	--	--	≥ 750 ————— < 1000	98.8
10	--	--	1000	98.9

11 kVa= kilovolt amperes

12 ~~(b) For the purposes of this section, low voltage dry type~~
 13 ~~distribution transformer efficiency is measured in accordance with the~~
 14 ~~national electrical manufacturers association TP 2 1998 test method.~~

15 ~~(7))~~ Metal halide lamp fixtures designed to be operated with lamps
 16 rated greater than or equal to 150 watts but less than or equal to 500
 17 watts shall not contain a probe-start metal halide lamp ballast.

18 ~~((8))~~ (6)(a) Single-voltage external AC to DC power supplies
 19 shall meet the requirements in the following table:

20	Nameplate output	Minimum Efficiency in Active Mode
21	< 1 Watt	0.49 * Nameplate Output
22	> or= 1 Watt and < or= 49 Watts	0.09 * Ln (Nameplate Output)+ 0.49
23	> 49 Watts	0.84
24		Maximum Energy Consumption in No-Load Mode
25	< 10 Watts	0.5 Watts
26	> or= 10 Watts and < or= 250 Watts	0.75 Watts

27 Where Ln (Nameplate Output) - Natural Logarithm of the nameplate output expressed in Watts

28 (b) For the purposes of this section, efficiency of single-voltage
 29 external AC to DC power supplies shall be measured in accordance with
 30 the United States environmental protection agency's "Test Method for
 31 Calculating the Energy Efficiency of Single-Voltage External AC to DC
 32 and AC to AC Power Supplies," by Ecos Consulting and Power Electronics
 33 Application Center, dated August 11, 2004.

34 ~~((9))~~ (7)(a) State-regulated incandescent reflector lamps ~~((that~~

1 are not 50 watt elliptical reflector lamps must meet the minimum
2 efficacies in the following table:

3	Wattage	Minimum average lamp efficacy (lumens per watt)
4	40-50	10.5
5	51-66	11.0
6	67-85	12.5
7	86-115	14.0
8	116-155	14.5
9	156-205	15.0

10 (b) Lamp efficacy must be measured in accordance with the
11 applicable federal test method as found at 10 C.F.R. Sec. 430.23.

12 (10) Torchieres may not use more than 190 watts. A torchiere is
13 deemed to use more than 190 watts if any commercially available lamp or
14 combination of lamps can be inserted in a socket and cause the
15 torchiere to draw more than 190 watts when operated at full brightness.

16 (11)(a) Traffic signal modules must have maximum and nominal
17 wattage that do not exceed the applicable values in the following
18 table:

19	Module Type	Maximum Wattage (at 74°C)	Nominal Wattage (at 25°C)
20	12" red ball (or 300 mm circular)	17	11
21	8" red ball (or 200 mm circular)	13	8
22	12" red arrow (or 300 mm arrow)	12	9
23			
24	12" green ball (or 300 mm circular)	15	15
25	8" green ball (or 200 mm circular)	12	12
26	12" green arrow (or 300 mm arrow)	11	11

27 mm= millimeter

28 (b) For the purposes of this section, maximum wattage and nominal
29 wattage must be measured in accordance with and under the testing
30 conditions specified by the institute for transportation engineers
31 "Interim LED Purchase Specification, Vehicle Traffic Control Signal
32 Heads, Part 2: Light Emitting Diode Vehicle Traffic Signal Modules."))
33 shall meet the minimum average lamp efficacy requirements for federally

1 regulated incandescent reflector lamps contained in 42 U.S.C. Sec.
2 6295(i)(1)(A).

3 (b) The following types of incandescent lamps are exempt from these
4 requirements:

5 (i) Lamps rated at fifty watts or less of the following types: BR
6 30, ER 30, BR 40, and ER 40;

7 (ii) Lamps rated at sixty-five watts of the following types: BR
8 30, BR 40, and ER 40; and

9 (iii) R 20 lamps of forty-five watts or less.

10 ~~((12))~~ (8) Unit heaters must be equipped with intermittent
11 ignition devices and must have either power venting or an automatic
12 flue damper.

13 **Sec. 4.** RCW 19.260.050 and 2005 c 298 s 5 are each amended to read
14 as follows:

15 (1) ~~((On or after January 1, 2007,))~~ No new commercial prerinse
16 spray valve, commercial clothes washer, commercial refrigerator or
17 freezer, ~~((illuminated exit sign, low voltage dry type distribution~~
18 ~~transformer, single voltage external AC to DC power supply,))~~ state-
19 regulated incandescent reflector lamp, ~~((torchiere, traffic signal~~
20 ~~module,))~~ or unit heater manufactured on or after January 1, 2007, may
21 be sold or offered for sale in the state unless the efficiency of the
22 new product meets or exceeds the efficiency standards set forth in RCW
23 19.260.040. ~~((On or after January 1, 2008,))~~ No new automatic
24 commercial ice cube machine, single-voltage external AC to DC power
25 supply, or metal halide lamp fixtures manufactured on or after January
26 1, 2008, may be sold or offered for sale in the state unless the
27 efficiency of the new product meets or exceeds the efficiency standards
28 set forth in RCW 19.260.040.

29 (2) On or after January 1, 2008, no new commercial prerinse spray
30 valve, commercial clothes washer, commercial refrigerator or freezer,
31 ~~((illuminated exit sign, low voltage dry type distribution~~
32 ~~transformer,))~~ single-voltage external AC to DC power supply, state-
33 regulated incandescent reflector lamp, ~~((torchiere, traffic signal~~
34 ~~module,))~~ or unit heater manufactured on or after January 1, 2007, may
35 be installed for compensation in the state unless the efficiency of the
36 new product meets or exceeds the efficiency standards set forth in RCW
37 19.260.040. On or after January 1, 2009, no new automatic commercial

1 ice cube machine or metal halide lamp fixtures manufactured on or after
2 January 1, 2008, may be installed for compensation in the state unless
3 the efficiency of the new product meets or exceeds the efficiency
4 standards set forth in RCW 19.260.040.

5 (3) Standards for metal halide lamp fixtures and state-regulated
6 incandescent reflector lamps are effective on the dates in subsections
7 (1) and (2) of this section."

EFFECT: Changes the date of manufacture requirement for single-
voltage external AC to DC power supply from January 1, 2007, to January
1, 2008.

--- END ---