

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
PUBLIC UTILITIES COMMISSION

RULES AND REGULATIONS ESTABLISHING  
MINIMUM EFFICIENCY STANDARDS FOR CERTAIN NEW PRODUCTS  
SOLD IN THE STATE OF RHODE ISLAND

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## PART I. INTRODUCTION

Pursuant to R.I. Gen. Laws § 39-27-1 et seq. and specifically, R.I. Gen. Laws § 39-27-5, establishing minimum efficiency standards for certain types of new products sold, offered for sale or installed in the State of Rhode Island, the Public Utilities Commission hereby promulgates these rules to effectuate the Act of the Rhode Island General Assembly.

## PART II. APPLICABILITY

(a) These Rules shall apply to all persons or entities offering for sale or installing in the State of Rhode Island any of the new products listed in Part III of these Rules and Regulations Establishing Minimum Efficiency Standards for Certain New Products Sold in The State of Rhode Island.

## PART III. DEFINITIONS

- (a) "Automatic commercial ice-maker" means a factory-made assembly that is shipped in one or more packages that consists of a condensing unit and ice-making section operating as an integrated unit, that makes and harvests ice cubes, and that may store and dispense ice. This term includes machines with capacities between and including fifty (50) and two thousand five hundred (2,500) pounds per twenty-four (24) hours.
- (b) "Ballast" means a device used with an electric discharge lamp to obtain necessary circuit conditions (voltage, current and waveform) for starting and operating the lamp.
- (c) "Chief of Energy and Community Services" means the head official of the Rhode Island State Energy Office.
- (d) "Commercial clothes washer" means a soft mount horizontal or vertical-axis clothes washer that:
- (1) Has a clothes container compartment no greater than three and a half (3.5) cubic feet in the case of a horizontal-axis product or no greater than four (4.0) cubic feet in the case of a vertical-axis product; and
  - (2) Is designed for use by more than one household, such as in multi-family housing, apartments or coin laundries.
- (e) "Commercial pre-rinse spray valve" means a hand-held device designed and marketed for use with commercial dishwashing and ware washing equipment and which sprays water on dishes, flatware, and other food service items for the purpose of removing food residue prior to their cleaning.

- (f) "Commercial refrigerator, freezer and refrigerator-freezer" means self-contained refrigeration equipment that:
- (1) Is not a consumer product as regulated pursuant to 42 U.S. Code § 6291 and subsequent sections;
  - (2) Operates at a chilled, frozen, combination chilled frozen, or variable temperature for the purpose of storing and/or merchandising food, beverages and/or ice;
  - (3) May have transparent and/or solid hinged doors, sliding doors, or a combination of hinged and sliding doors; and
  - (4) Incorporates most components involved in the vapor compression cycle and the refrigerated compartment in a single cabinet.

This term does not include:

- (1) Units with eighty-five (85) cubic feet or more of internal volume;
  - (2) Walk-in refrigerators or freezers;
  - (3) Units with no doors; or
  - (4) Freezers specifically designed for ice cream.
- (g) "Commission" means the Rhode Island Public Utilities Commission.
- (h) "Compensation" means money or any other valuable thing, regardless of form, received or to be received by a person for services rendered.
- (i) "High intensity discharge lamp" means a lamp in which light is produced by the passage of an electric current through a vapor or gas, and in which the light-producing arc is stabilized by bulb wall temperature and the arc tube has a bulb wall loading in excess of three (3) watts per square centimeter.
- (j) "Illuminated exit sign" means an internally-illuminated sign that is designed to be permanently fixed in place to identify a building exit and consists of an electrically powered integral light source that illuminates the legend "EXIT" and any directional indicators and provides contrast between the legend, any directional indicators and the background.
- (k) "Large packaged air-conditioning equipment" means electronically-operated, air-cooled air-conditioning and air-conditioning heat pump equipment having cooling capacity greater than or equal to two hundred forty thousand (240,000) Btu/hour

but less than seven hundred sixty thousand (760,000) Btu/hour that is built as a package and shipped as a whole to end-user sites.

- (l) "Low voltage dry-type distribution transformer" means a transformer that:
  - (1) Has an input voltage of six hundred (600) volts or less;
  - (2) Is air-cooled;
  - (3) Does not use oil as a coolant; and
  - (4) Is rated for operation at a frequency of sixty (60) Hertz.
- (m) "Mercury vapor lamp" means a high-intensity discharge lamp in which the major portion of the light is produced by radiation from mercury operating at a partial pressure in excess of one hundred thousand (100,000) PA (approximately 1 atm). Includes clear, phosphor-coated and self-ballasted lamps.
- (n) "Metal halide lamp" means a high intensity discharge lamp in which the major portion of the light is produced by radiation of metal halides and their products of dissociation, possibly in combination with metallic vapors.
- (o) "Metal halide lamp fixture" means a lamp fixture designed to be operated with a metal halide lamp and a ballast for a metal halide lamp.
- (p) "Probe-start metal halide ballast" means a ballast used to operate metal halide lamps which does not contain an igniter and which instead starts lamps by using a third starting electrode "probe" in the arc tube.
- (q) "Pulldown refrigerator" means a commercial refrigerator with doors that, when fully loaded with twelve (12) ounce canned beverages at ninety (90) degrees F, can cool these beverages to an average stable temperature of thirty-eight (38) degrees F in twelve (12) hours or less.
- (r) "Single-voltage external AC to DC power supply" means a device that:
  - (1) Is designed to convert line voltage AC input into lower voltage DC output;
  - (2) Is able to convert to one DC output voltage at a time;
  - (3) Is sold with, or intended to be used with, a separate end-use product that constitutes the primary power load;
  - (4) Is contained within a separate physical enclosure from the end-use product;

- (5) Is connected to the end-use product via a removable or hard-wired male female electrical connection, cable, cord or other wiring;
  - (6) Does not have batteries or battery packs, including those that are removable, that physically attach directly to the power supply unit;
  - (7) Does not have a battery chemistry or type selector switch and indicator light; or
  - (8) Has a nameplate output power less than or equal to two hundred fifty (250) watts.
- (s) "Torchiere" means a portable electric lighting fixture with a reflective bowl that directs light upward onto a ceiling so as to produce indirect illumination on the surfaces below. A torchiere may include downward directed lamps in addition to the upward, indirect illumination.
- (t) "Traffic signal module" means a standard eight (8) inch (two hundred millimeter (200 mm)) or twelve (12) inch (three hundred millimeter (300 mm)) traffic signal indication, consisting of a light source, a lens, and all other parts necessary for operation.
- (u) "Transformer" means a device consisting of two or more coils of insulated wire and that is designed to transfer alternating current by electromagnetic induction from one coil to another to change the original voltage or current value. The term "transformer does not include:
- (1) Transformers with multiple voltage taps, with the highest voltage tap equaling at least twenty percent (20%) more than the lowest voltage tap; or
  - (2) Transformers, such as those commonly known as drive transformers, rectifier transformers, auto-transformers, uninterruptible power system transformers, impedance transformers, regulating transformers, sealed and nonventilating transformers, machine tool transformers, welding transformers, grounding transformers, or testing transformers, that are designed to be used in a special purpose application and are unlikely to be used in general purpose applications.
- (v) "Unit heater" means a self-contained, vented fan-type commercial space heater that uses natural gas or propane, and that is designed to be installed without ducts within a heated space, except that such term does not include any products covered by federal standards established pursuant to 42 U.S. Code § 6291 and subsequent sections or any product that is a direct vent, forced flue heater with a sealed combustion burner.

#### PART IV. SCOPE

(a) The provisions of these Rules apply to the following types of new products sold, offered for sale or installed in the state:

- (1) Automatic commercial ice makers;
- (2) Commercial clothes washers;
- (3) Commercial pre-rinse spray valves;
- (4) Commercial refrigerators, freezers, and refrigerator freezers;
- (5) High-intensity discharge lamp ballasts;
- (6) Illuminated exit signs;
- (7) Large packaged air-conditioning equipment;
- (8) Low voltage dry-type distribution transformers;
- (9) Metal halide lamp fixtures;
- (10) Single-voltage external AC to DC power supplies;
- (11) Torchieres;
- (12) Traffic signal modules; and
- (13) Unit heaters.

(b) The provisions of these Rules do not apply to:

- (1) New products manufactured in the state and sold outside the state;
- (2) New products manufactured outside the state and sold at wholesale inside the state for final retail sale and installation outside the state;
- (3) Products installed in mobile manufactured homes at the time of construction; or
- (4) Products designed expressly for installation and use in recreational vehicles.

#### PART V. EFFICIENCY STANDARDS

- (a) Products sold on and after the Implementation Dates set forth in Part V of these Rules shall comply with the following minimum efficiency standards:
- (1) Automatic commercial ice makers shall meet the energy efficiency requirements shown in table A-7 of § 1605.3 of the California Code of Regulations, Title 20: Division 2, Chapter 4, Article 4: Appliance Efficiency Regulations as adopted on December 15, 2004.
  - (2) Commercial clothes washers shall meet the requirements shown in Table P-4 of § 1605.3 of the California Code of Regulations, Title 20: Division 2, Chapter 4, Article 4: Appliance Efficiency Regulations in effect on December 15, 2004.
  - (3) Commercial pre-rinse spray valves shall have a flow rate equal to or less than 1.6 gallons per minute.
  - (4) Commercial refrigerators, freezers and refrigerator-freezers shall meet the minimum efficiency requirements shown in Table A-6 of § 1605.3 of the California Code of Regulations, Title 20: Division 2, Chapter 4, Article 4: Appliance Efficiency Regulations as adopted on December 15, 2004 except that pulldown refrigerators with transparent doors shall meet a requirement five percent (5%) less stringent than shown in the California regulations.
  - (5) High-intensity discharge lamp ballasts shall not be designed and marketed to operate a mercury vapor lamp.
  - (6) Illuminated exit signs shall have an input power demand of five (5) watts or less per illuminated face.
  - (7) Large packaged air-conditioning equipment shall meet a minimum energy efficiency ratio of:
    - (A) 10.0 for air conditioning without an integrated heating component or with electric resistance heating integrated into the unit;
    - (B) 9.8 for air conditioning with heating other than electric resistance integrated into the unit;
    - (C) 9.5 for air conditioning with heating other than electric resistance integrated heating component or with electric resistance heating integrated into the unit;
    - (D) 9.3 for air conditioning heat pump equipment with heating other than electric resistance integrated into the unit. Large packaged air conditioning heat pumps shall meet a minimum coefficient of

performance in the heating mode of three and two tenths (3.2) (measured at a high temperature rating of forty-seven (47) degrees F db).

- (8) Low voltage dry-type distribution transformers shall meet the Class 1 efficiency levels for low voltage distribution transformers specified in Table 4-2 of the "Guide for Determining Energy Efficiency for Distribution Transformers" published by the National Electrical manufacturers Association (NEMA Standard TP-1-2002).
- (9) Metal halide lamp fixtures that operate in a vertical position and are designed to be operated with lamps rated greater than or equal to one hundred fifty (150) watts but less than or equal to five hundred (500) watts shall not contain a probe-start metal halide lamp ballast.
- (10) Single-voltage external AC to DC power supplies shall meet the tier one energy efficiency requirements shown in Table U-1 of § 1605.3 of the California Code of Regulations, Title 20: Division 2, Chapter 4, Article 4: Appliance Efficiency Regulations as adopted on December 15, 2004. This standard applies to single voltage AC to DC power supplies that are sold individually and to those that are sold as a component of or in conjunction with another product.
- (11) Torchieres shall not use more than one hundred ninety (190) watts. A torchiere shall be deemed to use more than one hundred ninety (190) watts if any commercially available lamp or combination of lamps can be inserted in its socket(s) and cause the torchiere to draw more than one hundred ninety (190) watts when operated at full brightness.
- (12) Traffic signal modules shall meet the product specification of the "Energy Star Program Requirements for Traffic Signals" developed by the U.S. Environmental Protection Agency that took effect in February 2001 and shall be installed with compatible, electronically- connected signal control interface devices and conflict monitoring systems.
- (13) Unit heater shall be equipped with an intermittent ignition device and shall have either power venting or an automatic flue damper.

## PART VI. IMPLEMENTATION

- (a) On or after January 1, 2007, no new commercial clothes washer, commercial pre-rinse spray valve, high-intensity discharge lamp ballast, illuminated exit sign, low voltage dry-type distribution transformer, single-voltage external AC to DC power supply, torchiere, traffic signal module, or unit heater may be sold or offered for sale in the state unless the efficiency of the new product meets or

exceeds the efficiency standards set forth in the regulations adopted pursuant to § 39-27-5.

- (b) On or after January 1, 2008, no new metal halide lamp fixture may be sold or offered for sale in the state unless the efficiency of the new product meets or exceeds the efficiency standards set forth in the regulations adopted pursuant to § 39-27-5.
- (c) On or after January 1, 2010, no new automatic commercial icemaker, commercial refrigerator, refrigerator-freezer, or freezer or large packaged air conditioning equipment may be sold or offered for sale in the state unless the efficiency of the new product meets or exceeds the efficiency standards set forth in the regulations adopted pursuant to § 39-27-5.
- (d) One year after the date upon which sale or offering for sale of certain products is limited pursuant to this section, no new products may be installed for compensation in the state unless the efficiency of the new product meets or exceeds the efficiency standards set forth in the regulations adopted pursuant to § 39-27-5.

#### PART VII. REGISTRATION, TESTING, AND CERTIFICATION

- (a) The manufacturers of products covered by these Rules shall test samples of their products in accordance with the test procedures adopted by the chief of energy and community services in consultation with the state building commissioner pursuant to R.I. Gen. Laws. § 39-27-8.

#### PART VIII. SEVERABILITY

- (a) The provisions of these Rules shall be severable and if the application of any clause, sentence, paragraph, subdivision, section or part of these Rules shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair, or invalidate the application of any other clause, sentence, paragraph, subdivision, section or part of this chapter.
- (b) The provisions of these Rules shall be severable and if the application of any clause, sentence, paragraph, subdivision, section or part of these Rules shall be preempted by Federal Law, such preemption shall not affect, impair, or invalidate the application of any other clause, sentence, paragraph, subdivision, section or part of this chapter.