

CHAPTER 42

AN ACT concerning energy efficiency and supplementing Title 48 of the Revised Statutes.

BE IT ENACTED by the Senate and General Assembly of the State of New Jersey:

C.48:3-99 Definitions relative to energy efficiency.

1. As used in this act:

"Air-cooled very large commercial package air conditioning and heating equipment" means air-cooled, water-cooled, evaporative-cooled or water source (but not ground water source), electrically operated, unitary central air conditioners and central air conditioning heat pumps for commercial application that are rated at or above 240,000 Btu per hour and below 760,000 Btu per hour in cooling capacity;

"Board" means the Board of Public Utilities;

"Coefficient of performance" means the ratio of heating capacity in watts to the power input values in watts obtained at standards rating conditions;

"Commercial clothes washer" means a soft mount front-loading or soft mount top-loading clothes washer that is designed for use in: applications where the occupants of more than one household will be using it, including multi-family housing common areas and coin laundries; or other commercial applications, if the clothes container compartment is no greater than 3.5 cubic feet for horizontal-axis clothes washers, or no greater than 4.0 cubic feet for vertical-axis clothes washers;

"Commercial refrigerator, freezer, and refrigerator-freezer equipment" means refrigeration equipment that:

- a. is not a consumer product;
- b. operates at a chilled, frozen, combination chilled/frozen, or variable temperature;
- c. displays or stores merchandise either horizontally, semi-vertically, or vertically;
- d. may have transparent or solid hinged doors or both, sliding doors, a combination of hinged and sliding doors or no doors;
- e. is designed either for pull-down temperature applications or holding temperature applications; and
- f. is connected to a self-contained condensing unit;

"Commissioner" means the Commissioner of Environmental Protection;

"Digital television converter box" means a device that receives and decodes digital broadcast signals for display by an analog television set;

"Energy efficiency ratio" means the ratio of the cooling capacity in Btu per hour to the power input values in watts obtained at standard rating conditions expressed in Btu per watt-hours;

"Holding temperature applications" means commercial refrigerator, freezer, and refrigerator-freezer equipment that is not designed for "pull-down" temperature applications;

"Illuminated exit sign" means an internally illuminated sign that is designed to be permanently fixed in place and used to identify an exit, a light source illuminates the sign or letters from within, and the background of the sign is not transparent;

"Low-voltage dry-type distribution transformer" means a transformer with an input voltage of 600 volts or less, is between 14kVa and 2,501kVa in size, is air-cooled, and does not use oil as a coolant, and does not include those types of transformers specifically excluded from the low voltage dry-type distribution transformer definition published in the California Code of Regulations, Title 20: Division 2, Chapter 4, Article 4: Appliance Efficiency Regulations, as amended in November 2002;

"Packaged air-conditioning equipment" means air-conditioning equipment that is built as a package and shipped as a whole to end-user sites;

"Pull-down temperature applications" means commercial refrigerator, freezer, and refrigerator-freezer equipment specifically designed to rapidly reduce all product content temperatures from various ambient temperatures at a minimum reduction rate of 4.3 degrees Fahrenheit per hour over a 12-hour period to an overall integrated product temperature equal to 38 degrees Fahrenheit when fully loaded with beverage containers;

"Self-contained condensing unit" means a factory-made assembly of refrigerating components designed to compress and liquefy a specific refrigerant that is an integral part of the refrigerated equipment and consists of one or more refrigerant compressors, refrigerant condensers, condenser fans and motors, and factory supplied accessories;

"Torchiere lighting fixture" means a portable electric lighting fixture with a reflector bowl directing light upward to provide indirect illumination;

"Traffic signal module" means a standard 8-inch (200 mm) or 12-inch (300 mm) round traffic signal indication, consisting of a light source, lens and all parts necessary for operation, and communicates movement messages to drivers through red, amber and green colors, and may include arrow modules in the same colors to indicate turning movements;

"Transformer" means a device consisting essentially of two or more coils of insulated wire that transfers alternating current by electromagnetic induction from one coil to another in order to change the original voltage or current value; and

"Unit heater" means a self-contained fan-type heater that uses natural gas, propane, or fuel oil and is designed to be installed within a heated space. Unit heaters include an apparatus or appliance to supply heat, and a fan for circulating air over a heat exchange surface, all enclosed in a common casing. Unit heaters do not include "warm air furnaces" as specifically defined under the federal Energy Policy Act of 1992, Pub.L. 102-486.

C.48:3-100 Applicability of act.

2. a. The provisions of this act shall apply to the testing, certification and enforcement of efficiency standards for the following types of new products sold, offered for sale or installed in the State:

- (1) commercial clothes washers;
- (2) commercial refrigerators and freezers;
- (3) illuminated exit signs;
- (4) air-cooled very large commercial package air conditioning and heating equipment;
- (5) low-voltage dry-type distribution transformers;
- (6) torchiere lighting fixtures;
- (7) traffic signal modules; and
- (8) unit heaters.

b. The provisions of this act shall 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.

C.48:3-101 Rules, regulations establishing minimum energy efficiency standards.

3. Within one year of the effective date of this act, the Board of Public Utilities, in consultation with the Commissioner of Environmental Protection, shall adopt, pursuant to the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), rules and regulations establishing minimum energy efficiency standards for the types of new products set forth in section 2 of this act. The regulations shall provide for the following minimum efficiency standards:

a. Commercial clothes washers shall meet the requirements set forth in Table P-3 of section 1605.3, California Code of Regulations, Title 20: Division 2, Chapter 4, Article 4, Appliance Efficiency Regulations, provided that such washers shall not be required to meet the modified energy factor requirements until 2007 and shall not be required to meet the water factor requirements until 2010;

b. (1) Each self-contained commercial refrigerator, freezer, and refrigerator-freezer equipment designed for holding temperature applications sold on or after January 1, 2010, shall meet the following standards:

- (a) Refrigerators with solid doors: 0.10 times V plus 2.04 kilowatt hours per day;
- (b) Refrigerators with transparent doors: 0.12 times V plus 3.34 kilowatt hours per day;
- (c) Freezers with solid doors: 0.40 times V plus 1.38 kilowatt hours per day;
- (d) Freezers with transparent doors: 0.75 times V plus 4.10 kilowatt hours per day;
- (e) Refrigerators/freezers with solid doors: the greater of 0.27 times AV minus 0.71 kilowatt hours per day or 0.70 kilowatt hours per day; and

(f) Refrigerators/freezers with separate refrigeration systems: the sum of the standard applicable to the refrigerator and the standard applicable to the freezer. For refrigerators, freezers, and refrigerator-freezers with doors, the rating temperatures shall be the integrated average temperature of 38 degrees Fahrenheit (plus or minus two degrees Fahrenheit) for refrigerator compartments and zero degrees Fahrenheit (plus or minus two degrees Fahrenheit for freezer compartments).

(2) Each self-contained commercial refrigerator, freezer, and refrigerator-freezer equipment designed for pull-down temperature applications sold on or after January 1, 2010, shall meet the following standards:

(a) Refrigerators with transparent doors: 0.126 times V plus 3.51 kilowatt hours per day; and

(b) Freezers with transparent doors 0.788 times V plus 4.3 kilowatt hours per day.

As used in this subsection, "V" means the chilled or frozen compartment volume in cubic feet as defined in the Association of Home Appliance Manufacturers Standard HRF1-1979; "integrated average temperature" means the average temperature of all test package measurements taken during the test; and "AV" means the adjusted volume in cubic feet defined as 1.63 times the frozen temperature compartment volume in cubic feet plus the chilled temperature compartment volume in cubic feet;

c. Illuminated exit signs shall meet the requirements of the "Energy Star Program Requirements for Exit Signs" developed by the United States Environmental Protection Agency;

d. Each air-cooled very large commercial package air conditioning and heating equipment sold on or after January 1, 2010, shall meet the following standards:

(1) The minimum energy efficiency ratio of air-cooled central air conditioners at or above 240,000 Btu per hour in cooling capacity and less than 760,000 Btu per hour in cooling capacity shall be 10.0 for equipment with no heating or electric resistance heating and 9.8 for equipment with all other heating system types that are integrated into the equipment at a standard rating of 95 degrees Fahrenheit dry bulb.

(2) The minimum energy efficiency ratio of air-cooled central air conditioner heat pumps at or above 240,000 Btu per hour in cooling capacity and less than 760,000 Btu per hour in cooling capacity shall be 9.5 for equipment with no heating or electric resistance heating and 9.3 for equipment with all other heating system types that are integrated into the equipment at a standard rating of 95 degrees Fahrenheit dry bulb.

(3) The minimum coefficient of performance in the heating mode of air-cooled central air conditioning heat pumps at or above 240,000 Btu per hour in cooling capacity and less than 760,000 Btu per hour in cooling capacity shall be 3.2 at a high temperature rating of 47 degrees Fahrenheit dry bulb;

e. Low-voltage dry type distribution transformers shall meet or exceed the energy efficiency values shown in Table 4-2 of National Electrical Manufacturers Association Standard TP-1-1996;

f. Torchiere lighting fixtures shall not consume more than 190 watts and shall not be capable of operating with lamps that total more than 190 watts;

g. Traffic signal modules shall meet the product specifications of the "Energy Star Program Requirements for Traffic Signals" developed by the United States Environmental Protection Agency; and

h. Unit heaters shall be equipped with an intermittent ignition device and shall have either power venting or an automatic flue damper.

C.48:3-102 Compliance of new products with standards, time.

4. a. Except as provided in subsection c. of this section, within two years of the effective date of this act, no new product of a type set forth in section 2 of this act may be sold or offered for sale in the State unless the energy efficiency of the new product meets or exceeds the efficiency standards set forth in the regulations adopted pursuant to section 3 of this act.

b. Except as provided in subsection c. of this section, within three years of the effective date of this act, no new product for a type set forth in section 2 of this act may be installed in the State unless the energy efficiency of the new product meets or exceeds the efficiency standards set forth in the regulations adopted pursuant to section 3 of this act.

c. The standards for commercial refrigerator, freezer, and refrigerator-freezer equipment and for air-cooled very large commercial package air conditioning and heating equipment become effective for equipment sold or installed in this State on or after January 1, 2010.

C.48:3-103 Procedures for testing energy efficiency of new products.

5. a. The Board of Public Utilities, in consultation with the Commissioner of Environmental Protection, shall adopt, pursuant to the "Administrative Procedure Act," procedures for testing the energy efficiency of the new products covered by section 2 of this act if such procedures are not provided for in the standard building code of New Jersey. The board shall use United States Department of Energy approved test methods, or in the absence of such test methods, other appropriate nationally recognized test methods. The manufacturers of such products shall cause samples of such appliances to be tested in accordance with the test procedures adopted pursuant to this section or those specified in the standard building code of New Jersey.

b. Manufacturers of new products covered by section 2 of this act shall certify to the board that such products are in compliance with the provisions of this act. The board, in consultation with the commissioner, shall adopt, pursuant to the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), regulations governing the certification of such products and may propose to work in coordination with the certification program of other states with similar standards.

c. The board may test products covered by section 2 of this act using an accredited testing facility. If products so tested are found not to be in compliance with the minimum efficiency standards established under section 3 of this act, the commissioner shall: (1) charge the manufacturer of such products for the cost of product purchase and testing, and (2) provide information to the public on products found not to be in compliance with the standards.

d. Testing procedures for commercial refrigerator, freezer, and refrigerator-freezer equipment and for air-cooled very large commercial package air conditioning and heating equipment shall be as follows:

(1) commercial refrigerator, freezer, and refrigerator-freezer equipment shall be tested in accordance with the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) Standard 117-2002 - "Method of Testing Closed Refrigerators" (ANSI Approved).

(2) air-cooled very large commercial package air conditioning and heating equipment shall be tested in accordance with Air-Conditioning and Refrigeration Institute Standard 340/360-2000 "Commercial and Industrial Unitary Air-Conditioning and Heat Pump Equipment" (ANSI Approved).

C.48:3-104 Periodic inspections of distributors, retailers.

6. The Board of Public Utilities, in consultation with the Commissioner of Environmental Protection, may cause periodic inspections to be made of distributors or retailers of new products covered by section 2 of this act in order to determine compliance with the provisions of this act. The board shall also work with the Commissioner of Community Affairs to coordinate the inspections for new products that are also covered by the standard building code of New Jersey.

C.48:3-105 Investigations of complaints; violations, penalties.

7. a. The Board of Public Utilities, in consultation with the Commissioner of Environmental Protection, shall cause investigations to be made of complaints received concerning violations of this act and shall report the results of such investigations to the Attorney General. The Attorney General may institute proceedings to enforce the provisions of this act.

b. A manufacturer, distributor or retailer who violates any provision of this act shall be issued a warning by the board for any first violation. Repeat violations shall be subject to a civil penalty of not more than \$250. Each violation of this act shall constitute a separate offense, and each day that the violation continues shall constitute a separate offense. Penalties assessed under this act are in addition to costs assessed pursuant to subsection c. of section 5 of this act.

C.48:106 Further regulations.

8. The Board of Public Utilities, in consultation with the Commissioner of Environmental

Protection, may adopt, pursuant to the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), any further regulations as may be necessary to implement the provisions of this act.

9. This act shall take effect immediately.

Approved March 8, 2005.