

Vermont Appliance Efficiency Standards

In 2018, the Vermont Legislature adopted Act 139, amending 9 V.S.A. § 2795, and requiring the Commissioner of the Department of Public Service to “adopt rules in accordance with the provisions of 3 V.S.A. chapter 25 establishing minimum efficiency standards for the types of new products set forth in section 2794 of this title.” This rule sets minimum efficiency standards for seventeen products found in 9 V.S.A. § 2792 to which the State’s efficiency standards do not currently apply. Act 139 incorporates materials by reference in the “Definitions” (§ 2793) and “Efficiency and Water Conservation Standards” (§ 2795) sections of the Act. The Act articulates specific existing efficiency standards the Department of Public Service must adopt; as such, the entirety of this rule consists of the standards listed below and incorporated by reference without additional text.

EFFECTIVE DATE

Act 139, Sec. 5. amends 9 V.S.A. § 2796 (d) and specifies the effective dates of the standards provided herein as follows:

- (1) On or after July 1, 2019, no new luminaire that is designed and marketed to operate with T12 fluorescent lamps may be sold or offered for sale in the State. This prohibition shall not apply to a luminaire that the seller purchased on or before June 30, 2019.
- (2) On or after July 1, 2020, no new air compressor, commercial dishwasher, commercial fryer, commercial hot-food holding cabinet, commercial steam cooker, computer or computer monitor, high color rendering index (CRI) fluorescent lamp, portable electric spa, residential ventilating fan, spray sprinkler body, uninterruptible power supply, or water cooler may be sold or offered for sale, lease, or rent in the State unless the efficiency of the new product meets or exceeds the efficiency standards set forth herein.
- (3) On or after July 1, 2021, no new faucet, showerhead, or urinal may be sold or offered for sale, lease, or rent in the State unless the efficiency of the new product meets or exceeds the efficiency standards set forth herein.
- (4) This rule governs the date after which no new portable air conditioner may be sold or offered for sale, lease, or rent in the State unless the efficiency of the new product meets or exceeds the efficiency standards set forth in Section (j) of these rules (the compliance date).
 - (A) The compliance date shall be on or after February 1, 2022, unless subdivision (B) of this subdivision (4) applies.
 - (B) If, prior to January 1, 2019, the U.S. Department of Energy (DOE) has published a final rule in the Federal Register establishing efficiency standards for portable air conditioners and the rule has not been repealed, voided, or retracted, the compliance date shall be on or after the date as of which portable air conditioners are required to comply with the DOE rule.

DEFINITIONS

"Dishwasher" as defined in the U.S. Code of Federal Regulations Title 10, Chapter II, Subchapter D, Part 431.12 (10 CFR 431.12)

"ENERGY STAR Program" is a federal program operated by the U.S. Environmental Protection Agency and defined in U.S. federal statute pursuant to chapter 42 section 7403(g) [42 U.S.C. § 7403(g)].

"T12 fluorescent lamp" as defined by the American National Standards Institute in standard C78.81-2003

EFFICIENCY AND WATER CONSERVATION STANDARDS

(a) Air Compressors: In this subdivision (1), "final rule" means the document setting forth a final action by the U.S. Department of Energy (DOE) with respect to a final rule for "Energy Conservation Standards for Air Compressors," docket no. EERE-2013-BT-STD-0040, the pre-publication final rule released by the U.S. Department of Energy for error correction review on December 5, 2016. Effective July 1, 2020, air compressors that meet the 12 criteria to be codified under 10 C.F.R. § 431.345(a) and set forth on pages 350 to 351 of the final rule shall meet the requirements contained in Table 1 on page 352 of the final rule using the instructions to be codified under 10 C.F.R. § 431.345(b) and set forth on page 353 of the final rule. Compliance with these requirements shall be measured in accordance with 10 C.F.R. Part 431, Subpart T, Appendix A, entitled "Uniform Test Method for Certain Air Compressors," as in effect on July 3, 2017.

(b) Commercial Dishwashers: Effective July 1, 2020, commercial dishwashers included in the scope of the "ENERGY STAR Program Requirements Product Specification for Commercial Dishwashers," Version 2.0, shall meet the qualification criteria of that specification. "ENERGY STAR Program Requirements Product Specification for Commercial Dishwashers version 2.0" was developed by the U.S. Environmental Protection Agency and took effect on February 1, 2013.

(c) Commercial Fryers: Effective July 1, 2020, commercial fryers included in the scope of the "ENERGY STAR Program Requirements Product Specification for Commercial Fryers," Version 2.0, shall meet the qualification criteria of that specification. "ENERGY STAR Program Requirements Product Specification for Commercial Fryers version 2.0" was developed by the U.S. Environmental Protection Agency and took effect on April 22, 2011.

(d) Hot-Food Holding Cabinets: Effective July 1, 2020, commercial hot-food holding cabinets shall have a maximum idle energy rate of 40 watts per cubic foot of interior volume, as determined by the "idle energy rate-dry test" in ASTM F2140-11, "Standard Test Method for Performance of Hot-Food Holding Cabinets," ASTM International (2011). Interior volume shall be measured as prescribed in the "ENERGY STAR Program Requirements Product Specification

for Commercial Hot-Food Holding Cabinets,” Version 2.0, developed by the U.S. Environmental Protection Agency, which took effect October 1, 2011.

(e) Commercial Steam Cookers: Effective July 1, 2020, commercial steam cookers shall meet the requirements of the “ENERGY STAR Program Requirements Product Specification for Commercial Steam Cookers,” Version 1.2., developed by the U.S. Environmental Protection Agency, effective August 1, 2003.

(f) Computers and Computer Monitors: Effective July 1, 2020, computers and computer monitors as defined in 20 California Code of Regulations (CCR) § 1602 shall meet the requirements of 20 California Code of Regulations (CCR) § 1605.3(v). "20 California Code of Regulations § 1605.3(v)" is the section of the CCR that contains the California state mandatory minimum energy efficiency requirements for computers and computer monitors. It was developed by the California Energy Commission and includes several different tiers of energy efficiency requirements for desktop computers, laptop computers and computer monitors.

(g) Faucets and Showerheads: Effective July 1, 2021, faucets, except for metering faucets, and showerheads shall meet the standards below when tested in accordance with 10 C.F.R. Part 430, Subpart B, Appendix S, entitled “Uniform Test Method for Measuring the Water Consumption of Faucets and Showerheads,” as in effect on January 3, 2017.

- i. Lavatory faucets and replacement aerators shall not exceed a maximum flow rate of 1.5 gallons per minute (gpm) at 60 pounds per square inch (psi).
- ii. Residential kitchen faucets and replacement aerators shall not exceed a maximum flow rate of 1.8 gpm at 60 psi, with optional temporary flow of 2.2 gpm, provided they default to a maximum flow rate of 1.8 gpm at 60 psi after each use.
- iii. Public lavatory faucets and replacement aerators shall not exceed a maximum flow rate of 0.5 gpm at 60 psi.
- iv. Showerheads shall not exceed a maximum flow rate of 2.0 gpm at 80 psi.

(h) High CRI fluorescent lamps: Effective July 1, 2020, high CRI fluorescent lamps shall meet the minimum efficacy requirements contained in 10 C.F.R. § 430.32(n)(4) as that subdivision existed on January 3, 2017. The energy efficiency of high CRI fluorescent lamps shall be measured in accordance with “Uniform Test Method for Measuring Average Lamp Efficacy (LE), Color Rendering Index (CRI), and Correlated Color Temperature (CCT) of Electric Lamps,” as it appeared in 10 C.F.R. Part 430, Subpart B, Appendix R as it existed on January 3, 2017.

(i) Urinals: Effective July 1, 2021, urinals, other than trough-type urinals and urinals designed and marketed exclusively for use at prisons or mental health facilities, shall have a maximum flush volume of 0.5 gallons per flush when tested in accordance with “Uniform Test Method for Measuring the Water Consumption of Water Closets and Urinals,” as described in the U.S. Code of Federal Regulation, 10 C.F.R. Part 430, Subpart B, Appendix T, as it appeared on January 3, 2017.

(j) Portable Air Conditioners: Effective February 1, 2022, portable air conditioners shall have a Combined Energy Efficiency Ratio (CEER), that is greater than or equal to: $1.04 \times [\text{SACC}/(3.7177 \times \text{SACC}^{0.6384})]$, where “SACC” means seasonally adjusted cooling capacity expressed in Btu/hr. The CEER shall be measured in accordance with the “Uniform Test Method for Measuring the Energy Consumption of Portable Air Conditioners,” 10 C.F.R. Part 430, Subpart B, Appendix CC as in effect on January 3, 2017.

(k) Portable Electric Spas: Effective July 1, 2020, portable electric spas shall meet the requirements of the American National Standard for Portable Electric Spa Energy Efficiency, ANSI/APSP/ICC-14 2014, as that standard exists on the effective date of this section, July 1, 2020.

(l) Residential Ventilating Fans: Effective July 1, 2020, residential ventilating fans shall meet the qualification criteria of the “ENERGY STAR Program Requirements Product Specification for Residential Ventilating Fans,” Version 3.2, developed by the U.S. Environmental Protection Agency which took effect on December 23, 2011.

(m) Spray Sprinkler Bodies: Effective July 1, 2020, spray sprinkler bodies shall include an integral pressure regulator and shall meet the water efficiency and performance criteria and other requirements of the Environmental Protection Agency’s “WaterSense Specification for Spray Sprinkler Bodies,” Version 1.0., which took effect on September 21, 2017.

(n) Uninterruptible Power Supplies: In this subdivision (14), “final rule” means the document setting forth a final action by DOE with respect to a final rule for “Energy Conservation Standards for Uninterruptible Power Supplies,” released by the U.S. Department of Energy for error correction review on December 28, 2016 as part of docket no. EERE-2016-BT-STD-0022.

Effective July 1, 2020, uninterruptible power supplies that use a National Electrical Manufacturer Association (NEMA) 1-15P or 5-15P input plug and have an alternating current (AC) output shall have an average load-adjusted efficiency that meets or exceed the values shown to be codified under 10 C.F.R. § 430.32(z)(3) and set forth on pages 193–194 of the final rule.

These requirements for Uninterruptible Power Supplies shall be measured in accordance with the “Uniform Test Method for Measuring the Energy Consumption of Battery Chargers,” 10 C.F.R. Part 430, Subpart B, Appendix Y, entitled “Uniform Test Method for Measuring the Energy Consumption of Battery Chargers,” as in effect on January 11, 2017.

These requirements for Uninterruptible Power Supplies shall be measured in accordance with the “Uniform Test Method for Measuring the Energy Consumption of Battery Chargers,” 10 C.F.R. Part 430, Subpart B, Appendix Y as in effect on January 11, 2017.

(o) Water Coolers: Effective July 1, 2020, water coolers included in the scope of the “ENERGY STAR Program Requirements Product Specification for Water Coolers,” Version 2.0, which took effect on February 1, 2014, shall have “on mode with no water draw” energy consumption less than or equal to the following values, measured in accordance with the test requirements of that specification:

- (i) 0.16 kilowatt-hours (kWh) per day for cold-only units and cook and cold units;
- (ii) 0.87 kWh per day for storage type hot and cold units; and
- (iii) 0.18 kWh per day for on-demand hot and cold units.

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