



September 28, 2020

Ms. Diane Glenn
Washington Building Code Council
1500 Jefferson Street S.E.,
Olympia, WA 98504

Re: WSR 20-17-049 – Proposed Rules to Adopt the 2018 Edition of the Uniform Plumbing Code

Dear Ms. Glenn,

On behalf of Bradford White Corporation (BWC), I want to thank you for providing an opportunity to comment on the Washington Building Code Council's adoption of the 2018 edition of the Uniform Plumbing Code (UPC). We are pleased to be a part of this important conversation.

BWC is an American-owned, full-line manufacturer of residential, commercial, and industrial products for water heating, space heating, combination heating, and water storage products. In the State of Washington, a significant number of individuals, families, and job providers rely on our products for their hot water and space heating needs.

On May 7, 2019, Governor Jay Inslee signed HB 1444 into law. This legislation, among other things, created a requirement that all electric storage water heaters in the State of Washington, manufactured after January 1, 2021, be equipped with a demand response function. The legislation, in Section 5; subsection 2, also allows the Washington Department of Commerce (DOC) to establish a later effective date for this requirement (see Attachment A). Having been granted this authority in the Act, the DOC hosted stakeholder workshops and accepted written comments on this issue throughout the summer and fall of 2019.

As a result of this process, the DOC determined that the appliance energy efficiency standard compliance deadline for electric storage water heaters would be extended in part (see Attachment B). In this partial extension, the Department determined that it would maintain the January 1, 2021, compliance date for electric storage heat pump water heaters only. The compliance date for standard electric resistance storage water heaters was pushed back to January 1, 2022. We respectfully ask the Building Code Council to modify the current language of the proposed UPC to harmonize with the DOC-established compliance dates described above.

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Thank you for continuing to include BWC and other stakeholders in this important conversation. Please let me know if you have any questions or would like any additional information.

Respectfully Submitted,

Bradford White Corporation

Eric Truskoski
Director of Government and Regulatory Affairs

Cc: B. Carnevale; M. Taylor; B. Hill; L. Prader; C. Sanborn; J. Robertson; K. Doyle; J. Ferrante; B. Wolfer; B. Ahee

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CERTIFICATION OF ENROLLMENT
SECOND SUBSTITUTE HOUSE BILL 1444

66th Legislature
2019 Regular Session

Passed by the House April 18, 2019
Yeas 55 Nays 39

Speaker of the House of Representatives

Passed by the Senate April 15, 2019
Yeas 26 Nays 22

President of the Senate

Approved

Governor of the State of Washington

CERTIFICATE

I, Bernard Dean, Chief Clerk of the House of Representatives of the State of Washington, do hereby certify that the attached is **SECOND SUBSTITUTE HOUSE BILL 1444** as passed by the House of Representatives and the Senate on the dates hereon set forth.

Chief Clerk

FILED

**Secretary of State
State of Washington**

SECOND SUBSTITUTE HOUSE BILL 1444

AS AMENDED BY THE SENATE

Passed Legislature - 2019 Regular Session

State of Washington 66th Legislature 2019 Regular Session

By House Appropriations (originally sponsored by Representatives Morris, Fitzgibbon, Tarleton, and Ormsby; by request of Department of Commerce)

READ FIRST TIME 02/28/19.

1 AN ACT Relating to appliance efficiency standards; amending RCW
2 19.260.010, 19.260.030, 19.260.040, 19.260.050, 19.260.060, and
3 19.260.070; reenacting and amending RCW 19.260.020; adding a new
4 section to chapter 19.260 RCW; creating a new section; and repealing
5 RCW 19.27.170.

6 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

7 **Sec. 1.** RCW 19.260.010 and 2005 c 298 s 1 are each amended to
8 read as follows:

9 The legislature finds that appliance standards and design
10 requirements:

11 ~~(1) ((According to estimates of the department of community,~~
12 ~~trade, and economic development, the efficiency standards set forth~~
13 ~~in chapter 298, Laws of 2005 will save nine hundred thousand~~
14 ~~megawatt-hours of electricity, thirteen million therms of natural~~
15 ~~gas, and one billion seven hundred million gallons of water in the~~
16 ~~year 2020, fourteen years after the standards have become effective,~~
17 ~~with a total net present value to buyers of four hundred ninety~~
18 ~~million dollars in 2020.~~

19 ~~(2) Efficiency standards))~~ For certain products sold or installed
20 in the state assure consumers and businesses that such products meet

1 minimum efficiency performance levels thus saving money on utility
2 bills.

3 ~~((3) Efficiency standards))~~ (2) Save energy and reduce pollution
4 and other environmental impacts associated with the production,
5 distribution, and use of electricity and natural gas.

6 ~~((4) Efficiency standards))~~ (3) Contribute to the economy of
7 Washington by helping to better balance energy supply and demand,
8 thus reducing pressure for higher natural gas and electricity prices.
9 By saving consumers and businesses money on energy bills, efficiency
10 standards help the state and local economy, since energy bill savings
11 can be spent on local goods and services.

12 ~~((5) Efficiency standards))~~ (4) Can make electricity systems
13 more reliable by reducing the strain on the electricity grid during
14 peak demand periods. Furthermore, improved energy efficiency can
15 reduce or delay the need for new power plants, power transmission
16 lines, and power distribution system upgrades.

17 (5) Help ensure renters have the same access to energy efficient
18 appliances as homeowners.

19 **Sec. 2.** RCW 19.260.020 and 2009 c 565 s 18 and 2009 c 501 s 1
20 are each reenacted and amended to read as follows:

21 The definitions in this section apply throughout this chapter
22 unless the context clearly requires otherwise.

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

28 ~~(2))~~ "Bottle-type water dispenser" means a water dispenser that
29 uses a bottle or reservoir as the source of potable water.

30 ~~((3))~~ (2) "Commercial hot food holding cabinet" means a heated,
31 fully enclosed compartment, with one or more solid or partial glass
32 doors, that is designed to maintain the temperature of hot food that
33 has been cooked in a separate appliance. "Commercial hot food holding
34 cabinet" does not include heated glass merchandising cabinets, drawer
35 warmers, or cook and hold appliances.

36 ~~((4) (a) "Commercial refrigerators and freezers" means~~
37 ~~refrigerators, freezers, or refrigerator-freezers designed for use by~~
38 ~~commercial or institutional facilities for the purpose of storing or~~
39 ~~merchandising food products, beverages, or ice at specified~~

1 ~~temperatures that: (i) Incorporate most components involved in the~~
2 ~~vapor-compression cycle and the refrigerated compartment in a single~~
3 ~~cabinet; and (ii) may be configured with either solid or transparent~~
4 ~~doors as a reach-in cabinet, pass-through cabinet, roll-in cabinet,~~
5 ~~or roll-through 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 ~~(5))~~ (3) "Compensation" means money or any other valuable thing,
12 regardless of form, received or to be received by a person for
13 services rendered.

14 ~~((6))~~ (4) "Cook and hold appliance" means a multiple mode
15 appliance intended for cooking food that may be used to hold the
16 temperature of the food that has been cooked in the same appliance.

17 ~~((7))~~ (5) "Department" means the department of commerce.

18 ~~((8))~~ (6) "Drawer warmer" means an appliance that consists of
19 one or more heated drawers and that is designed to hold hot food that
20 has been cooked in a separate appliance at a specified temperature.

21 ~~((9))~~ (7) "Heated glass merchandising cabinet" means an
22 appliance with a heated cabinet constructed of glass or clear plastic
23 doors which, with seventy percent or more clear area, is designed to
24 display and maintain the temperature of hot food that has been cooked
25 in a separate appliance.

26 ~~((10))~~ (8) "Hot water dispenser" means a small electric water
27 heater that has a measured storage volume of no greater than one
28 gallon.

29 ~~((11))~~ (9) "Mini-tank electric water heater" means a small
30 electric water heater that has a measured storage volume of more than
31 one gallon and a rated storage volume of less than twenty gallons.

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

35 ~~(13))~~ (10) "Point-of-use water dispenser" means a water
36 dispenser that uses a pressurized water utility connection as the
37 source of potable water.

38 ~~((14) "Pool heater" means an appliance designed for heating~~
39 ~~nonpotable water contained at atmospheric pressure for swimming~~
40 ~~pools, spas, hot tubs, and similar applications.~~

1 ~~(15))~~ (11) "Portable electric spa" means a factory-built
2 electric spa or hot tub, ~~((supplied with equipment for heating and~~
3 ~~circulating water))~~ which may or may not include any combination of
4 integral controls, water heating, or water circulating equipment.

5 ~~((16) "Reach-in cabinet" means a commercial refrigerator or~~
6 ~~freezer with hinged or sliding doors or lids, but does not include~~
7 ~~roll-in or roll-through cabinets or pass-through cabinets.~~

8 ~~(17))~~ (12) "Residential pool pump" means a pump used to
9 circulate and filter pool water in order to maintain clarity and
10 sanitation.

11 ~~((18) (a) "Roll-in cabinet" means a commercial refrigerator or~~
12 ~~freezer with hinged or sliding doors that allow wheeled racks of~~
13 ~~product to be rolled into the unit.~~

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

17 ~~(19) "Showerhead" means a device through which water is~~
18 ~~discharged for a shower bath.~~

19 ~~(20) "Showerhead tub spout diverter combination" means a group of~~
20 ~~plumbing fittings sold as a matched set and consisting of a control~~
21 ~~valve, a tub spout diverter, and a showerhead.~~

22 ~~(21) "State-regulated incandescent reflector lamp" means a lamp~~
23 ~~that is not colored or designed for rough or vibration service~~
24 ~~applications, has an inner reflective coating on the outer bulb to~~
25 ~~direct the light, an E26 medium screw base, a rated voltage or~~
26 ~~voltage range that lies at least partially within 115 to 130 volts,~~
27 ~~and falls into one of the following categories:~~

28 ~~(a) A bulged reflector or elliptical reflector bulb shape and~~
29 ~~which has a diameter which equals or exceeds 2.25 inches; or~~

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

32 ~~(22) "Tub spout diverter" means a device designed to stop the~~
33 ~~flow of water into a bathtub and to divert it so that the water~~
34 ~~discharges through a showerhead.~~

35 ~~(23) "Wine chillers designed and sold for use by an individual"~~
36 ~~means refrigerators designed and sold for the cooling and storage of~~
37 ~~wine by an individual.)~~

38 (13) "Commercial dishwasher" means a machine designed to clean
39 and sanitize plates, pots, pans, glasses, cups, bowls, utensils, and

1 trays by applying sprays of detergent solution, with or without
2 blasting media granules, and a sanitizing rinse.

3 (14) "Commercial fryer" means an appliance, including a cooking
4 vessel, in which oil is placed to such a depth that the cooking food
5 is supported by displacement of the cooking fluid rather than by the
6 bottom of the vessel. Heat is delivered to the cooking fluid by means
7 of an immersed electric element of band-wrapped vessel (electric
8 fryers) or by heat transfer from gas burners through either the walls
9 of the fryer or through tubes passing through the cooking fluid (gas
10 fryers).

11 (15) "Commercial steam cooker" means a device with one or more
12 food-steaming compartments in which the energy in the steam is
13 transferred to the food by direct contact. Models may include
14 countertop models, wall-mounted models, and floor models mounted on a
15 stand, pedestal, or cabinet-style base.

16 (16) "Air compressor" means a compressor designed to compress air
17 that has an inlet open to the atmosphere or other source of air and
18 is made up of a compression element (bare compressor), a driver or
19 drivers, mechanical equipment to drive the compressor element, and
20 any ancillary equipment.

21 (17) "Compressor" means a machine or apparatus that converts
22 different types of energy into the potential energy of gas pressure
23 for displacement and compression of gaseous media to any higher-
24 pressure values above atmospheric pressure and has a pressure ratio
25 at full-load operating pressure greater than 1.3.

26 (18) "General service lamp" has the same meaning as set forth in
27 the action published at 82 Fed. Reg. 7276, 7321-22 (January 19, 2017)
28 and modified by the action published at 82 Fed. Reg. 7322, 7333
29 (January 19, 2017).

30 (19) "High color rendering index fluorescent lamp" or "high CRI
31 fluorescent lamp" means a fluorescent lamp with a color rendering
32 index of eighty-seven or greater that is not a compact fluorescent
33 lamp.

34 (20) "Portable air conditioner" means a portable encased
35 assembly, other than a packaged terminal air conditioner, room air
36 conditioner, or dehumidifier, that delivers cooled, conditioned air
37 to an enclosed space, and is powered by single-phase electric
38 current. It includes a source of refrigeration and may include
39 additional means for air circulation and heating and may be a single-
40 duct or a dual-duct portable air conditioner.

1 (21) "Residential ventilating fan" means a ceiling, wall-mounted,
2 or remotely mounted in-line fan designed to be used in a bathroom or
3 utility room whose purpose is to move objectionable air from inside
4 the building to the outdoors.

5 (22) "Signage display" means an analog or digital device designed
6 primarily for the display for computer-generated signals that is not
7 marketed for use as a computer monitor or a television.

8 (23) "Spray sprinkler body" means the exterior case or shell of a
9 sprinkler incorporating a means of connection to the piping system
10 designed to convey water to a nozzle or orifice.

11 (24) "Uninterruptible power supply" means a battery charger
12 consisting of a number of convertors, switches, and energy storage
13 devices such as batteries, constituting a power system for
14 maintaining continuity of load power in case of input power failure.

15 (25) "Water cooler" means a freestanding device that consumes
16 energy to cool or heat potable water, including cold only units, hot
17 and cold units, cook and cold units, storage-type units, and on-
18 demand units.

19 (26) "Pressure regulator" means a device that maintains constant
20 operating pressure immediately downstream from the device, given
21 higher pressure upstream.

22 (27) "ANSI" means the American national standards institute.

23 (28) "CTA" means the consumer technology association.

24 (29) "Electric storage water heater" means a consumer product
25 that uses electricity as the energy source to heat domestic potable
26 water, has a nameplate input rating of twelve kilowatts or less,
27 contains nominally forty gallons but no more than one hundred twenty
28 gallons of rated hot water storage volume, and supplies a maximum hot
29 water delivery temperature less than one hundred eighty degrees
30 fahrenheit.

31 **Sec. 3.** RCW 19.260.030 and 2009 c 501 s 2 are each amended to
32 read as follows:

33 (1) This chapter applies to the following types of new products
34 sold, offered for sale, or installed in the state:

35 ~~(a) ((Automatic commercial ice cube machines;~~

36 ~~(b) Commercial refrigerators and freezers;~~

37 ~~(c) State-regulated incandescent reflector lamps;~~

38 ~~(d) Wine chillers designed and sold for use by an individual;~~

39 ~~(e)) Hot water dispensers and mini-tank electric water heaters;~~

1 ~~((f))~~ (b) Bottle-type water dispensers and point-of-use water
2 dispensers;

3 ~~((g) — Pool heaters,)~~ (c) Residential pool pumps ~~((r))~~ and
4 portable electric spas;

5 ~~((h))~~ (d) Tub spout diverters; ~~((and~~

6 ~~(i))~~ (e) Commercial hot food holding cabinets;

7 (f) Air compressors;

8 (g) Commercial fryers, commercial dishwashers, and commercial
9 steam cookers;

10 (h) Computers and computer monitors;

11 (i) Faucets;

12 (j) High CRI fluorescent lamps;

13 (k) Portable air conditioners;

14 (l) Residential ventilating fans;

15 (m) Showerheads;

16 (n) Spray sprinkler bodies;

17 (o) Uninterruptible power supplies;

18 (p) Urinals and water closets;

19 (q) Water coolers;

20 (r) General service lamps; and

21 (s) Electric storage water heaters.

22 (2) This chapter applies equally to products whether they are
23 sold, offered for sale, or installed as stand-alone products or as
24 components of other products.

25 (3) This chapter does not apply to:

26 (a) New products manufactured in the state and sold outside the
27 state;

28 (b) New products manufactured outside the state and sold at
29 wholesale inside the state for final retail sale and installation
30 outside the state;

31 (c) Products installed in mobile manufactured homes at the time
32 of construction; or

33 (d) Products designed expressly for installation and use in
34 recreational vehicles.

35 **Sec. 4.** RCW 19.260.040 and 2009 c 501 s 3 are each amended to
36 read as follows:

37 Except as provided in subsection (1) of this section, the minimum
38 efficiency standards specified in this section apply to the types of

new products set forth in RCW 19.260.030 as of the effective dates set forth in RCW 19.260.050.

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

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
Remote condensing and remote compressor	air	<934	8.85-.0038H	Not applicable
		≥934	5.3	Not applicable
Self-contained models	water	<200	11.40-.0190H	191-.0315H
		≥200	7.60	191-.0315H
Self-contained models	air	<175	18.0-.0469H	Not applicable
		≥175	9.80	Not applicable

Where H= harvest rate in pounds per twenty-four hours which must be reported within 5% of the tested value. "Maximum water use" applies only to water used for the condenser.

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

~~(2) (a) Commercial refrigerators and freezers must meet the applicable requirements listed in the following table:~~

Equipment Type	Doors	Maximum Daily Energy Consumption (kWh)
----------------	-------	--

1	Reach-in cabinets, pass-through cabinets, and roll-in or roll-through cabinets that are refrigerators	Solid	0.10V+ 2.04
2		Transparent	0.12V+ 3.34
3	Reach-in cabinets, pass-through cabinets, and roll-in or roll-through cabinets that are "pulldown" refrigerators	Transparent	.126V+ 3.51
4		Solid	0.40V+ 1.38
5	Reach-in cabinets, pass-through cabinets, and roll-in or roll-through cabinets that are freezers	Transparent	0.75V+ 4.10
6		Solid	0.27AV - 0.71
7	Reach-in cabinets that are refrigerator-freezers with an AV of 5.19 or higher	Solid	0.27AV - 0.71

12 kWh= kilowatt-hours

13 V= total volume (ft³)

14 AV= adjusted volume= [1.63 x freezer volume (ft³)]+ refrigerator volume (ft³)

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

26	Product or compartment type	Integrated average product temperature in degrees Fahrenheit
27	Refrigerator	38±2
28	Freezer	0±2

29 ~~(3) (a) The lamp electrical power input of state-regulated~~
 30 ~~incandescent reflector lamps shall meet the minimum average lamp~~
 31 ~~efficacy requirements for federally regulated incandescent reflector~~
 32 ~~lamps specified in 42 U.S.C. Sec. 6295(i) (1) (A) - (B).~~

33 ~~(b) The following types of incandescent lamps are exempt from~~
 34 ~~these requirements:~~

1 ~~(i) Lamps rated at fifty watts or less of the following types: BR~~
2 ~~30, ER 30, BR 40, and ER 40;~~

3 ~~(ii) Lamps rated at sixty-five watts of the following types: BR~~
4 ~~30, BR 40, and ER 40; and~~

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

6 ~~(4) (a) Wine chillers designed and sold for use by an individual~~
7 ~~must meet requirements specified in the California Code of~~
8 ~~Regulations, Title 20, section 1605.3 in effect as of July 26, 2009.~~

9 ~~(b) Wine chillers designed and sold for use by an individual~~
10 ~~shall be tested in accordance with the method specified in the~~
11 ~~California Code of Regulations, Title 20, section 1604 in effect as~~
12 ~~of July 26, 2009.~~

13 ~~(5))~~ The department may adopt by rule a more recent version of
14 any standard or test method established in this section, including
15 any product definition associated with the standard or test method,
16 in order to maintain or improve consistency with other comparable
17 standards in other states.

18 (2) (a) The standby energy consumption of bottle-type water
19 dispensers, and point-of-use water dispensers, dispensing both hot
20 and cold water, manufactured on or after January 1, 2010, shall not
21 exceed 1.2 kWh/day.

22 (b) The test method for water dispensers shall be the
23 environmental protection agency energy star program requirements for
24 bottled water coolers version 1.1.

25 ~~((6))~~ (3) (a) The standby energy consumption of hot water
26 dispensers and mini-tank electric water heaters manufactured on or
27 after January 1, 2010, shall be not greater than 35 watts.

28 (b) This subsection does not apply to any water heater:

29 (i) That is within the scope of 42 U.S.C. Sec. 6292(a)(4) or
30 6311(1);

31 (ii) That has a rated storage volume of less than 20 gallons; and

32 (iii) For which there is no federal test method applicable to
33 that type of water heater.

34 (c) Hot water dispensers shall be tested in accordance with the
35 method specified in the California Code of Regulations, Title 20,
36 section 1604 in effect as of July 26, 2009.

37 (d) Mini-tank electric water heaters shall be tested in
38 accordance with the method specified in the California Code of
39 Regulations, Title 20, section 1604 in effect as of July 26, 2009.

1 ~~((7))~~ (4) The following standards are established for ~~((pool~~
2 ~~heaters,))~~ residential pool pumps ~~((,))~~ and portable electric spas:

3 ~~(a) ((Natural gas pool heaters shall not be equipped with~~
4 ~~constant burning pilots.~~

5 ~~(b))~~ Residential pool pumps ~~((motors))~~ manufactured on or after
6 January 1, 2010, and until July 18, 2021, must meet requirements
7 specified in the California Code of Regulations, Title 20, section
8 1605.3 in effect as of July 26, 2009. Beginning July 19, 2021,
9 residential pool pumps must meet requirements specified in the
10 dedicated-purpose pool pump rule published by the United States
11 department of energy on January 18, 2017, (82 Fed. Reg. 5650) and
12 effective on May 18, 2017.

13 ~~((e))~~ (b) Through December 31, 2019, portable electric spas
14 manufactured on or after January 1, 2010, must meet requirements
15 specified in the California Code of Regulations, Title 20, section
16 1605.3 in effect as of July 26, 2009. Beginning January 1, 2020,
17 portable electric spas must meet the requirements of the American
18 national standard for portable electric spa energy efficiency (ANSI/
19 APSP/ICC-14 2014).

20 ~~((d))~~ (c) Through December 31, 2019, portable electric spas
21 must be tested in accordance with the method specified in the
22 California Code of Regulations, Title 20, section 1604 in effect as
23 of July 26, 2009. Beginning January 1, 2020, portable electric spas
24 must be tested in accordance with the method specified in the
25 American national standard for portable electric spa energy
26 efficiency (ANSI/APSP/ICC-14 2014).

27 ~~((8) (a))~~ The leakage rate of tub spout diverters shall be no
28 greater than the applicable requirements shown in the following
29 table:

Appliance	Testing Conditions	Maximum Leakage Rate
		Effective January 1, 2009
	When new	0.01 gpm
Tub spout diverters	After 15,000 cycles of diverting	0.05 gpm

34 ~~(b)~~ Showerhead tub spout diverter combinations shall meet both
35 the federal standard for showerheads established pursuant to 42
36 U.S.C. Sec. 6291 et seq. and the standard for tub spout diverters
37 specified in this section.

1 ~~(9))~~ (5)(a) The idle energy rate of commercial hot food holding
2 cabinets manufactured on or after January 1, 2010, shall be no
3 greater than 40 watts per cubic foot of measured interior volume.

4 (b) The idle energy rate of commercial hot food holding cabinets
5 shall be determined using ANSI/ASTM (~~F2140-01~~) F2140-11 standard
6 test method for the performance of hot food holding cabinets (test
7 for idle energy rate dry test). Commercial hot food holding cabinet
8 interior volume shall be calculated using straight line segments
9 following the gross interior dimensions of the appliance and using
10 the following equation: Interior height x interior width x interior
11 depth. Interior volume shall not account for racks, air plenums, or
12 other interior parts.

13 (6) Commercial dishwashers included in the scope of the
14 environmental protection agency energy star program product
15 specification for commercial dishwashers, version 2.0, must meet the
16 qualification criteria of that specification.

17 (7) Commercial fryers included in the scope of the environmental
18 protection agency energy star program product specification for
19 commercial fryers, version 2.0, must meet the qualification criteria
20 for that specification.

21 (8) Commercial steam cookers must meet the requirements of the
22 environmental protection agency energy star program product
23 specification for commercial steam cookers, version 1.2.

24 (9) Computers and computer monitors must meet the requirements in
25 the California Code of Regulations, Title 20, section 1605.3(v) as
26 adopted on May 10, 2017, and amended on November 8, 2017, as measured
27 in accordance with test methods prescribed in section 1604(v) of
28 those regulations.

29 (10) Air compressors that meet the twelve criteria listed on page
30 350 to 351 of the "energy conservation standards for air compressors"
31 final rule issued by the United States department of energy on
32 December 5, 2016, must meet the requirements in table 1 on page 352
33 following the instructions on page 353 and as measured in accordance
34 with the "uniform test method for certain air compressors" under 10
35 C.F.R. Part 431 (Appendix A to Subpart T) as in effect on July 3,
36 2017.

37 (11) High CRI fluorescent lamps must meet the requirements in 10
38 C.F.R. Sec. 430.32(n)(4) in effect as of January 3, 2017, as measured
39 in accordance with the test methods prescribed in 10 C.F.R. Sec.

1 430.23 (appendix R to subpart B of part 430) in effect as of January
2 3, 2017.

3 (12) Portable air conditioners must have a combined energy
4 efficiency ratio, as measured in accordance with the test methods
5 prescribed in 10 C.F.R. Sec. 430.23 (appendix CC to subpart B of part
6 430) in effect as of January 3, 2017, that is greater than or equal
7 to:

$$1.04 \times \frac{SACC}{(3.7117 \times SACC^{0.6384})}$$

10 where "SACC" is seasonally adjusted cooling capacity in Btu/h.

11 (13) Residential ventilating fans must meet the qualification
12 criteria of the environmental protection agency energy star program
13 product specification for residential ventilating fans, version 3.2.

14 (14) Spray sprinkler bodies that are not specifically excluded
15 from the scope of the environmental protection agency water sense
16 program product specification for spray sprinkler bodies, version
17 1.0, must include an integral pressure regulator and must meet the
18 water efficiency and performance criteria and other requirements of
19 that specification.

20 (15) The following products that are within the scope and
21 definition of the applicable regulation must meet the requirements in
22 the California Code of Regulations, Title 20, section 1605.3 in
23 effect as of January 1, 2018, as measured in accordance with the test
24 methods prescribed in the California Code of Regulations, Title 20,
25 section 1604 in effect as of January 1, 2018:

- 26 (a) Showerheads;
- 27 (b) Tub spout diverters;
- 28 (c) Showerhead tub spout diverter combinations;
- 29 (d) Lavatory faucets and replacement aerators;
- 30 (e) Kitchen faucets and replacement aerators;
- 31 (f) Public lavatory faucets and replacement aerators;
- 32 (g) Urinals; and
- 33 (h) Water closets.

34 (16) Uninterruptible power supplies that utilize a NEMA 1-15P or
35 5-15P input plug and have an AC output must have an average load
36 adjusted efficiency that meets or exceeds the values shown on page
37 193 of the prepublication final rule "Energy Conservation Program:
38 Energy Conservation Standards for Uninterruptible Power Supplies"
39 issued by the United States department of energy on December 28,

1 2016, as measured in accordance with test procedures prescribed in
2 Appendix Y to Subpart B of Part 430 of Title 10 of the Code of
3 Federal Regulations "Uniform Test Method for Measuring the Energy
4 Consumption of Battery Chargers" in effect as of January 11, 2017.

5 (17) Water coolers included in the scope of the environmental
6 protection agency energy star program product specification for water
7 coolers, version 2.0, must have an on mode with no water draw energy
8 consumption less than or equal to the following values as measured in
9 accordance with the test requirements of that program:

10 (a) 0.16 kilowatt-hours per day for cold-only units and cook and
11 cold units;

12 (b) 0.87 kilowatt-hours per day for storage type hot and cold
13 units; and

14 (c) 0.18 kilowatt-hours per day for on demand hot and cold units.

15 (18) General service lamps must meet or exceed a lamp efficacy of
16 45 lumens per watt, when tested in accordance with the applicable
17 federal test procedures for general service lamps prescribed in 10
18 C.F.R. Sec. 430.23 in effect as of January 3, 2017.

19 NEW SECTION. Sec. 5. A new section is added to chapter 19.260
20 RCW to read as follows:

21 (1) An electric storage water heater, if manufactured on or after
22 January 1, 2021, may not be installed, sold, or offered for sale,
23 lease, or rent in the state unless it complies with the following
24 design requirement:

25 (a) The product must have a modular demand response
26 communications port compliant with: (i) The March 2018 version of the
27 ANSI/CTA-2045-A communication interface standard, or equivalent and
28 (ii) the March 2018 version of the ANSI/CTA-2045-A application layer
29 requirements.

30 (b) The interface standard and application layer requirements
31 required in this subsection are the versions established in March
32 2018, unless the department adopts by rule a later version.

33 (2) The department may by rule establish a later effective date
34 or suspend enforcement of the requirements of subsection (1) of this
35 section if the department determines that such a delay or suspension
36 is in the public interest.

37 (3) Private customer information, and proprietary customer
38 information, collected, stored, conveyed, transmitted, or retrieved
39 by an electric storage water heater equipped with a modular demand

1 response communications port required under this section or rules
2 adopted under this chapter is subject to the provisions of RCW
3 19.29A.100 and 19.29A.110.

4 (4) An electric utility supplying electricity to a building in
5 which an electric storage water heater that meets the design
6 requirements established in this section has been installed may not,
7 without first having obtained in writing the customer's affirmative
8 consent to participating in a program that allows such alteration,
9 alter, or require the utility customer to alter, the usage of
10 electricity or water relating to the electric storage water heater on
11 the basis of information collected by the electric storage water
12 heater or any associated device.

13 **Sec. 6.** RCW 19.260.050 and 2009 c 501 s 4 are each amended to
14 read as follows:

15 (1) ~~((No new commercial refrigerator or freezer or state-~~
16 ~~regulated incandescent reflector lamp manufactured on or after~~
17 ~~January 1, 2007, may be sold or offered for sale in the state unless~~
18 ~~the efficiency of the new product meets or exceeds the efficiency~~
19 ~~standards set forth in RCW 19.260.040. No new automatic commercial~~
20 ~~ice cube machine manufactured on or after January 1, 2008, may be~~
21 ~~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~~
23 ~~RCW 19.260.040.~~

24 ~~(2) On or after January 1, 2008, no new commercial refrigerator~~
25 ~~or freezer or state-regulated incandescent reflector lamp~~
26 ~~manufactured on or after January 1, 2007, may be installed for~~
27 ~~compensation in the state unless the efficiency of the new product~~
28 ~~meets or exceeds the efficiency standards set forth in RCW~~
29 ~~19.260.040. On or after January 1, 2009, no new automatic commercial~~
30 ~~ice cube machine manufactured on or after January 1, 2008, may be~~
31 ~~installed for compensation in the state unless the efficiency of the~~
32 ~~new product meets or exceeds the efficiency standards set forth in~~
33 ~~RCW 19.260.040.~~

34 ~~(3) Standards for state-regulated incandescent reflector lamps~~
35 ~~are effective on the dates specified in subsections (1) and (2) of~~
36 ~~this section.~~

37 (4)) The following products, if manufactured on or after January
38 1, 2010, may not be sold or offered in the state unless the

1 efficiency of the new product meets or exceeds the efficiency
2 standards set forth in RCW 19.260.040:

3 ~~((a))~~ ~~((Wine chillers designed and sold for use by an individual;~~
4 ~~(b)))~~ Hot water dispensers and mini-tank electric water heaters;
5 ~~((c))~~ (b) Bottle-type water dispensers and point-of-use water
6 dispensers;

7 ~~((d))~~ ~~Pool heaters,~~ (c) Residential pool pumps ~~((e))~~ and
8 portable electric spas;

9 ~~((f))~~ (d) Tub spout diverters; and

10 ~~((g))~~ (e) Commercial hot food holding cabinets.

11 ~~((h))~~ (2) The following products, if manufactured on or after
12 January 1, 2010, may not be installed for compensation in the state
13 on or after January 1, 2011, unless the efficiency of the new product
14 meets or exceeds the efficiency standards set forth in RCW
15 19.260.040:

16 ~~((a))~~ ~~((Wine chillers designed and sold for use by an individual;~~
17 ~~(b)))~~ Hot water dispensers and mini-tank electric water heaters;
18 ~~((c))~~ (b) Bottle-type water dispensers and point-of-use water
19 dispensers;

20 ~~((d))~~ ~~Pool heaters,~~ (c) Residential pool pumps ~~((e))~~ and
21 portable electric spas;

22 ~~((f))~~ (d) Tub spout diverters; and

23 ~~((g))~~ (e) Commercial hot food holding cabinets.

24 (3) The following products, if manufactured on or after January
25 1, 2021, may not be sold or offered for sale, lease, or rent in the
26 state unless the efficiency of the new product meets or exceeds the
27 efficiency standards set forth in RCW 19.260.040:

28 (a) Commercial dishwashers;

29 (b) Commercial fryers;

30 (c) Commercial steam cookers;

31 (d) Computers or computer monitors;

32 (e) Faucets;

33 (f) Residential ventilating fans;

34 (g) Spray sprinkler bodies;

35 (h) Showerheads;

36 (i) Uninterruptible power supplies;

37 (j) Urinals and water closets; and

38 (k) Water coolers.

39 (4) Standards for the following products expire January 1, 2020:

40 (a) Hot water dispensers; and

1 (b) Bottle-type water dispensers and point-of-use water
2 dispensers.

3 (5) A new air compressor manufactured on or after January 1,
4 2022, may not be sold or offered for sale in the state unless the
5 efficiency of the new product meets or exceeds the efficiency
6 standards set forth in RCW 19.260.040.

7 (6) A new portable air conditioner manufactured on or after
8 February 1, 2022, may not be sold or offered for sale in the state
9 unless the efficiency of the new product meets or exceeds the
10 efficiency standards set forth in RCW 19.260.040.

11 (7) New general service lamps manufactured on or after January 1,
12 2020, may not be sold or offered for sale in the state unless the
13 efficiency of the new product meets or exceeds the efficiency
14 standards set forth in RCW 19.260.040.

15 (8) No new high CRI fluorescent lamps may be sold or offered for
16 sale in the state after January 1, 2023, unless the efficiency of the
17 new product meets or exceeds the efficiency standards set forth in
18 RCW 19.260.040. The department may establish by rule an earlier
19 effective date, not before January 1, 2022, if the state of
20 California adopts a comparable standard with an effective date before
21 January 1, 2023.

22 **Sec. 7.** RCW 19.260.060 and 2005 c 298 s 6 are each amended to
23 read as follows:

24 (1) The department may adopt rules that incorporate by reference
25 federal efficiency standards for federally covered products only as
26 the standards existed on January 1, 2018. The department, in
27 consultation with the office of the attorney general, must regularly
28 submit a report to the appropriate committees of the legislature on
29 federal standards that preempt the state standards set forth in RCW
30 19.260.040. Any report on federal preemption must be transmitted at
31 least thirty days before the start of any regular legislative
32 session.

33 (2) The department may recommend updates to the energy efficiency
34 standards and test methods for products listed in RCW 19.260.030. The
35 department may also recommend establishing state standards for
36 additional nonfederally covered products. In making its
37 recommendations, the department shall use the following criteria:
38 ((1)) (a) Multiple manufacturers produce products that meet the
39 proposed standard at the time of recommendation((, (2)); (b)

1 products meeting the proposed standard are available at the time of
2 recommendation(~~(7)(3)~~); (c) the products are cost-effective to
3 consumers on a life-cycle cost basis using average Washington
4 resource rates(~~(7)(4)~~); (d) the utility of the energy efficient
5 product meets or exceeds the utility of the comparable product
6 available for purchase(~~(7)~~); and (~~(5)~~) (e) the standard exists in
7 at least two other states in the United States. For recommendations
8 concerning commercial clothes washers, the department must also
9 consider the fiscal effects on the low-income, elderly, and student
10 populations. Any recommendations shall be transmitted to the
11 appropriate committees of the legislature sixty days before the start
12 of any regular legislative session.

13 **Sec. 8.** RCW 19.260.070 and 2005 c 298 s 7 are each amended to
14 read as follows:

15 (1) The manufacturers of products covered by this chapter must
16 test samples of their products in accordance with the test procedures
17 under this chapter or those specified in the state building code.

18 (2) Manufacturers of new products covered by RCW 19.260.030(~~(7)~~
19 ~~except for single-voltage external AC to DC power supplies,~~) shall
20 certify to the department that the products are in compliance with
21 this chapter. This certification must be based on test results unless
22 this chapter does not specify a test method. The department shall
23 establish rules governing the certification of these products and may
24 (~~coordinate with~~) rely on the certification programs of other
25 states and federal agencies with similar standards.

26 (3) Manufacturers of new products covered by RCW 19.260.030 shall
27 identify each product offered for sale or installation in the state
28 as in compliance with this chapter by means of a mark, label, or tag
29 on the product and packaging at the time of sale or installation. The
30 department shall establish rules governing the identification of
31 these products and packaging, which shall be coordinated to the
32 greatest practical extent with the labeling programs of other states
33 and federal agencies with equivalent efficiency standards.
34 Manufacturers of general service lamps that meet the efficiency
35 standards under RCW 19.260.040 are not required to label each
36 individual lamp offered for sale or installation in the state.

37 (4) The department may test products covered by RCW 19.260.030
38 and may rely on the results of product testing performed by or on
39 behalf of other governmental jurisdictions with comparable standards.

1 If products so tested are found not to be in compliance with the
2 minimum efficiency standards established under RCW 19.260.040, the
3 department shall: (a) Charge the manufacturer of the product for the
4 cost of product purchase and testing; and (b) make information
5 available to the public on products found not to be in compliance
6 with the standards.

7 (5) The department shall obtain (~~in paper form~~) the test
8 methods specified in RCW 19.260.040, which shall be available for
9 public use at the department's energy policy offices.

10 (6) The department (~~shall~~) may investigate complaints received
11 concerning violations of this chapter. Any manufacturer or
12 distributor who violates this chapter shall be issued a warning by
13 the director of the department for any first violation. Repeat
14 violations are subject to a civil penalty of not more than two
15 hundred fifty dollars a day. Penalties assessed under this subsection
16 are in addition to costs assessed under subsection (4) of this
17 section.

18 (7) The department may adopt rules as necessary to ensure the
19 proper implementation and enforcement of this chapter.

20 (8) The proceedings relating to this chapter are governed by the
21 administrative procedure act, chapter 34.05 RCW.

22 NEW SECTION. **Sec. 9.** RCW 19.27.170 (Water conservation
23 performance standards—Testing and identifying fixtures that meet
24 standards—Marking and labeling fixtures) and 1991 c 347 s 16 & 1989 c
25 348 s 8 are each repealed.

26 NEW SECTION. **Sec. 10.** If specific funding for the purposes of
27 this act, referencing this act by bill or chapter number, is not
28 provided by June 30, 2019, in the omnibus appropriations act, this
29 act is null and void.

30 NEW SECTION. **Sec. 11.** If any provision of this act or its
31 application to any person or circumstance is held invalid, the
32 remainder of the act or the application of the provision to other
33 persons or circumstances is not affected.

--- END ---

WAC 194-24-180 Electric storage water heaters. (1) **Scope.** This rule applies to new electric storage water heaters manufactured on or after January 1, 2021. The effective date of the rule is suspended un-til January 1, 2022, for electric storage water heaters other than heat pump type water heaters.

(2) **Standard.** Electric storage water heaters must have a modular demand response communications port compliant with:

(a) The March 2018 version of the ANSI/CTA-2045-A communication interface standard, or a standard determined by the department to be equivalent; and

(b) The March 2018 version of the ANSI/CTA-2045-A application layer requirements.

The interface standard and application layer requirements re-quired in this subsection are the versions established in March 2018.

(3) Upon written request by a manufacturer, the department will determine whether an alternative communications port and communication interface standard are equivalent for the purposes of subsection (2) of this section.

(a) Any requested alternative must use a standard that is open and widely available and must provide the demand response functions provided using the standards identified in subsection (2) of this section.

(b) A request for designation of a standard must provide technical documentation demonstrating that the standard satisfies the requirements in (a) of this subsection and must describe any industry or stakeholder process used in developing the standard. The department will provide reasonable opportunity for input by utilities, manufacturers, technical experts and other interested stakeholders prior to determining whether the proposed standard is equivalent. The department will make available on a publicly accessible website any standard that it determines to be equivalent.

(4) **Testing.** There is no test method required for this product.

(5) **Listing.** There is no listing requirement for this product.

(6) **Marking.** Every unit of every electric storage water heater must have a label or marking indicating compliance with the standard in this section. The format and content of the label or marking must be approved in advance by the department.

[Statutory Authority: RCW 19.260.070. WSR 20-03-013, § 194-24-180, filed 1/6/20, effective 2/6/20.]