

Chapter 173-443 WAC, Hydrofluorocarbons (HFCs)

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WAC 173-443-010 Policy and purpose.

- (1) Ecology's policy under chapter 70.94 RCW and chapter 43.21A RCW is to provide for the systematic control of air pollution from air contaminant sources. In addition, it is the policy of Washington state to reduce emissions of greenhouse gasses under chapter 70.235 RCW.
- (2) This chapter establishes the requirements for the transition to the use of less damaging HFCs or suitable substitutes in various applications in Washington in a manner similar to rules adopted by EPA and subsequently adopted by other states (RCW 70.235.080).

WAC 173-443-020 Applicability.

- (1) WAC 173-443-040, WAC 173-443-050, and WAC 173-443-060 apply to any person who offers for sale, leases, rents, installs, or otherwise causes to enter into Washington commerce any product or equipment that consists of, uses, or will use:
 - (a) HFCs or other substitutes for an end-use in WAC 173-443-040;
 - (b) HFCs or other substitutes for an acceptable use in WAC 173-443-050.
- (2) The labeling requirements in WAC 173-443-070 and the notification requirements in WAC 173-443-080, WAC 173-443-090, and WAC 173-443-100 apply only to manufacturers of products or equipment that consisted of, or used, HFCs on or after July 28, 2019, or manufacturers of products or equipment that have initiated producing such products at any time after that date.

WAC 173-443-030 Definitions.

The definitions in this section apply throughout this chapter unless the text clearly indicates otherwise.

“Aerosol propellant” means a liquid or compressed gas that is used in whole or in part, such as a cosolvent, to expel a liquid or other material from the same self-pressurized container or from a separate container.

“Bunstock or bun stock” means a large solid box-like structure formed during the production of polyurethane, polyisocyanurate, phenolic, or polystyrene insulation.

“Centrifugal chiller” means air conditioning equipment that utilizes a centrifugal compressor in a vapor-compression refrigeration cycle typically used for commercial comfort air conditioning. Centrifugal chiller in this definition is a chiller intended for comfort cooling and does not include cooling for industrial process cooling and refrigeration.

“Code” means a collection of letters, numbers, graphics, or symbols that translates into a form that conveys the information provided by a dedicated or existing product label, or that can convey a user or reader to that information through electronic means (such as a QR code).

“Cold storage warehouse” means a cooled facility designed to store meat, produce, dairy products, and other products that are delivered to other locations for sale to the ultimate consumer.

“Commercial refrigeration” or “retail food refrigeration” means equipment designed to store and display chilled or frozen goods for commercial sale including but not limited to stand-alone units, refrigerated food processing and dispensing equipment, remote condensing units, supermarket systems, and vending machines.

“Component” means a part of a refrigeration system, including but not limited to compressors, condensers, evaporators, and receivers; and all of its connections and subassemblies, without which the refrigeration system will not properly function or will be subject to failures.

“Dedicated label” means a label adhered or attached to a product, or otherwise included with the product, that is designed to convey required information to the end-user of that product on the inclusion or use of substitutes associated with that product.

“Ecology” means the department of ecology.

“EPA” means the U.S. Environmental Protection Agency.

“Equipment” means a collection of components assembled or manufactured to function together that contains at least one product, or that is in and of itself a product.

“End-use” means processes or classes of specific applications within industry sectors, including but not limited to those listed in WAC 173-443-040.

“Existing product label” means a label adhered or attached to a product, or to the box or packaging enclosing the product that discloses the substitute contained, used, or to be used in the product.

“Flexible polyurethane” means a non-rigid synthetic foam containing polymers of urethane radicals including, but not limited to that used in furniture, bedding, chair cushions, and shoe soles.

“Foam” means a product with a cellular structure formed via a foaming process in a variety of materials that undergo hardening via a chemical reaction or phase transition.

“Foam blowing agent” means a product or substance used to produce the product with a cellular structure formed via a foaming process in a variety of materials that undergo hardening or phase transition.

“Foam retail products” means products created for the purpose of selling or otherwise providing that product in a finished state that does not involve any additional manufacturing or refinement.

“Foam non-retail products” means foam products created solely to be an input for another product or manufacturing purpose resulting in another type of product.

“Foam system” means a multipart liquid material that expands when mixed to form a solid or flexible substance in which thin films of material separate pocket of gas.

“HFC” means hydrofluorocarbon.

“Household refrigerators and freezers” means refrigerators, refrigerator-freezers, freezers, and miscellaneous household refrigeration appliances intended for residential use.

“Household refrigerators and freezers” does not include “household refrigerators and freezers – compact,” or “household refrigerators and freezers – built-in.”

“Household refrigerators and freezers – compact” means any refrigerator, refrigerator-freezer or freezer intended for residential use with a total refrigerated volume of less than 7.75 cubic feet (220 liters).

“Household refrigerators and freezers – built-in” means any refrigerator, refrigerator-freezer or freezer intended for residential use with 7.75 cubic feet or greater total volume and 24 inches or less depth not including doors, handles, and custom front panels; with sides which are not finished and not designed to be visible after installation; and that is designed, intended, and marketed exclusively to be: installed totally encased by cabinetry or panels that are attached during installation; securely fastened to adjacent cabinetry, walls or floor; and equipped with an integral factory-finished face or accept a custom front panel.

Integral skin polyurethane” means a synthetic self-skinning foam containing polyurethane polymers formed by a reaction of an isocyanate and a polyol.

“MDI” means metered dose inhaler or medical dose inhaler.

“Miscellaneous residential refrigeration appliance” means a residential refrigeration appliance smaller than a refrigerator, refrigerator-freezer, or freezer; and which includes coolers, cooler compartments, and combination cooler refrigeration or cooler freezer products.

“Manufacturer” means any person, firm, association, partnership, corporation, governmental entity, organization, or joint venture that produces any product that contains or uses HFCs or is an importer or domestic distributor of such a product (RCW 70.235.010).

“Online disclosure” means disclosing the substitute contained, used, or to be used in products or equipment by ensuring that the information is available on an internet website that is accessible to the general public free of charge.

“Person” means an individual, partnership, franchise holder, association, corporation, a state, a city, a county, or any subdivision or instrumentality of the state (RCW 70.235.010).

“Phenolic insulation board and bunstock” means phenolic insulation including but not limited to that used for roofing and wall insulation.

“Polyolefin” means foam sheets and tubes made of polyolefin.

“Polystyrene extruded boardstock and Billet (XPS)” means a foam formed from polymers of styrene and produced on extruding machines in the form of continuous foam slabs which can be cut and shaped into panels used for roofing, walls, flooring, and pipes.

“Polystyrene extruded sheet” means polystyrene foam including that used for packaging and buoyancy or floatation. It is also made into food-service items, including hinged polystyrene containers (for "take-out" from restaurants); food trays (meat and poultry) plates, bowls, and retail egg containers.

“Positive displacement chiller” means vapor compression cycle chillers that use positive displacement compressors, typically used for commercial comfort air conditioning. Positive displacement chiller in this definition is a chiller intended for comfort cooling and does not include cooling for industrial process cooling and refrigeration.

“Product” means an article manufactured or refined for sale that contains or uses a substitute.

“Refrigerant” or “refrigerant gas” means any substance, including blends and mixtures, which is used for heat transfer purposes.

“Refrigerated food processing and dispensing equipment” means retail food refrigeration

equipment that is designed to process food and beverages dispensed via a nozzle that are intended for immediate or near-immediate consumption, including but not limited to chilled and frozen beverages, ice cream, and whipped cream. This end use excludes water coolers, or units designed solely to cool and dispense water.

“Refrigeration equipment” means any stationary device that is designed to contain and use refrigerant gas, including but not limited to retail or commercial refrigeration equipment, household refrigeration equipment, and cold storage warehouses.

“Remote condensing units” means retail refrigeration equipment or units that have a central condensing portion and may consist of compressor(s), condenser(s), and receiver(s) assembled into a single unit, which may be located external to the sales area. The condensing portion (and often other parts of the system) is located outside the space or area cooled by the evaporator. Remote condensing units are commonly installed in convenience stores, specialty shops (e.g., bakeries, butcher shops), supermarkets, restaurants, and other locations where food is stored, served, or sold.

“Retrofit” means to convert an appliance from one refrigerant to another refrigerant. Retrofitting includes the conversion of the appliance to achieve system compatibility with the new refrigerant and may include, but is not limited to, changes in lubricants, gaskets, filters, driers, valves, o-rings or appliance components (RCW 70.235.010).

“Rigid polyurethane and polyisocyanurate laminated boardstock” means laminated board insulation made with polyurethane or polyisocyanurate foam, including that used for roofing and walls.

“Rigid polyurethane appliance foam” means polyurethane insulation foam in domestic appliances.

“Rigid polyurethane commercial refrigeration and sandwich panels” means polyurethane insulation for use in walls and doors, including that used for commercial refrigeration equipment, and used in doors, including garage doors.

“Rigid polyurethane high-pressure two-component spray foam” means a foam product that is pressurized 800-1600 pounds per square inch (psi) during manufacture; sold in pressurized containers as two parts (i.e., A-side and B-side); and is blown and applied in situ using high-pressure pumps to propel the foam components, and may use liquid blowing agents without an additional propellant.

“Rigid polyurethane low-pressure two-component spray foam” means a foam product that is pressurized to less than 250 psi during manufacture; sold in pressurized containers as two parts (i.e., A-side and B-side); and are typically applied in situ relying upon a gaseous foam blowing agent that also serves as a propellant so pumps typically are not needed.

“Rigid polyurethane marine flotation foam” means buoyancy or flotation foam used in boat

and ship manufacturing for both structural and flotation purposes.

“Rigid polyurethane one-component foam sealants” means a foam packaged in aerosol cans that is applied in situ using a gaseous foam blowing agent that is also the propellant for the aerosol formulation.

“Rigid polyurethane slabstock and other” means a rigid closed-cell foam containing polymers of urethane radicals formed into slabstock insulation for panels and pipes.

“Stand-alone unit” means retail refrigerators, freezers, and reach-in coolers (either open or with doors) where all refrigeration components are integrated and, for the smallest types, the refrigeration circuit is entirely brazed or welded. These systems are fully charged with refrigerant at the factory and typically require only an electricity supply to begin operation.

“Stand-alone low-temperature unit” means a stand-alone unit that maintains food or beverages at temperatures at or below 32 °F (0 °C).

“Stand-alone medium-temperature unit” means a stand-alone unit that maintains food or beverages at temperatures above 32 °F (0 °C).

-“Substitute” means a substitute for the ozone depleting substances as set forth in EPA’s Significant New Alternatives Program (SNAP) regulations as defined in RCW 70.235.010.

“Supermarket systems” means multiplex or centralized retail food refrigeration equipment systems designed to cool or refrigerate, which operate with racks of compressors installed in a machinery room and which includes both direct and indirect systems.

“Symbol” means a graphical or hybrid word-graphical symbol for the purposes of conveying the types of substitutes used in the product or equipment and signaling that further information on the use of substitutes is available through online disclosure.

“UL” means Underwriters Laboratories.

“Unit” means a collection of like products bundled together for purposes of commerce.

“Unit label” means a label adhered or attached, or capable of being adhered or attached, to a collection of like products bundled together for purposes of commerce.

“Vending machine” means a self-contained unit that dispenses goods that must be kept cold or frozen.

WAC 173-443-040 List of prohibited substitutes.

- (1) The following tables list substitutes prohibited in specific end-uses and the effective date of prohibition, unless an exemption is provided for in WAC 173-443-050.

End-Use Category: Aerosol Propellants		
End-Use	Prohibited Substitutes	Effective Date
Aerosol propellants	HFC-125, HFC-134a, HFC-227ea and blends of HFC-227ea and HFC-134a	January 1, 2020

End-Use Category: Air Conditioning		
End-Use	Prohibited Substitutes	Effective Date
Centrifugal chillers (new)	FOR12A, FOR12B, HFC-134a, HFC-227ea, HFC-236fa, HFC245fa, R-125/ 134a/ 600a (28.1/70/1.9), R-125/ 290/ 134a/ 600a (55.0/1.0/42.5/1.5), R-404A, R-407C, R-410A, R-410B, R-417A, R-421A, R-422B, R-422C, R-422D, R-423A, R-424A, R-434A, R438A, R-507A, RS-44 (2003 composition), THR-03	January 1, 2024
Positive displacement chillers (new)	FOR12A, FOR12B, HFC-134a, HFC-227ea, KDD6, R125/ 134a/ 600a (28.1/70/1.9), R-125/ 290/ 134a/ 600a (55.0/1.0/42.5/1.5), R-404A, R-407C, R-410A, R-410B, R-417A, R-421A, R-422B, R-422C, R-422D, R-424A, R-434A, R-437A, R438A, R-507A, RS-44 (2003 composition), SP34E, THR-03	January 1, 2024

End-Use Category: Refrigeration		
End-Use	Prohibited Substitutes	Effective Date
Cold storage warehouses (new)	HFC-227ea, R-125/290/134a/600a (55.0/1.0/42.5/1.5), R404A, R-407A, R-407B, R-410A, R-410B, R-417A, R-421A, R421B, R-422A, R-422B, R-422C, R-422D, R-423A, R-424A, R428A, R-434A, R-438A, R-507A, RS-44 (2003 composition)	January 1, 2023
Household refrigerators and freezers (new)	FOR12A, FOR12B, HFC-134a, KDD6, R-125/290/134a/600a (55.0/1.0/42.5/1.5), R-404A, R-407C, R-407F, R-410A, R-410B, R-417A, R-421A, R-421B, R-422A, R-422B, R-422C, R-422D, R424A, R-426A, R-428A, R-434A, R-437A, R-438A, R-507A, RS24 (2002 formulation), RS-44 (2003 formulation), SP34E, THR-03	January 1, 2022
Household refrigerators and freezers – compact (new)	FOR12A, FOR12B, HFC-134a, KDD6, R-125/290/134a/600a (55.0/1.0/42.5/1.5), R-404A, R-407C, R-407F, R-410A, R-410B, R-417A, R-421A, R-421B, R-422A, R-422B, R-422C, R-422D, R424A, R-426A, R-428A, R-434A, R-437A, R-438A, R-507A, RS24 (2002	January 1, 2021

End-Use Category: Refrigeration		
End-Use	Prohibited Substitutes	Effective Date
	formulation), RS-44 (2003 formulation), SP34E, THR-03	
Household refrigerators and freezers – built in appliances (new)	FOR12A, FOR12B, HFC-134a, KDD6, R-125/290/134a/600a (55.0/1.0/42.5/1.5), R-404A, R-407C, R-407F, R-410A, R-410B, R-417A, R-421A, R-421B, R-422A, R-422B, R-422C, R-422D, R424A, R-426A, R-428A, R-434A, R-437A, R-438A, R-507A, RS24 (2002 formulation), RS-44 (2003 formulation), SP34E, THR-03	January 1, 2023
Supermarket systems (retrofit)	R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R428A, R-434A, R-507A	January 1, 2020
Supermarket systems (new)	HFC-227ea, R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R-428A, R-434A, R-507A	January 1, 2020
Remote condensing units (retrofit)	R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R428A, R-434A, R-507A	January 1, 2020
Remote condensing units (new)	HFC-227ea, R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R-428A, R-434A, R-507A	January 1, 2020
Stand-alone units (retrofit)	R-404A, R-507A	January 1, 2020
Stand-alone medium-temperature units (new)	FOR12A, FOR12B, HFC-134a, HFC-227ea, KDD6, R125/290/134a/600a (55.0/1.0/42.5/1.5), R-404A, R407A, R-407B, R-407C, R-407F, R-410A, R-410B, R417A, R-421A, R-421B, R-422A, R-422B, R-422C, R422D, R-424A, R-426A, R-428A, R-434A, R-437A, R438A, R-507A, RS-24 (2002 formulation), RS-44 (2003 formulation), SP34E, THR-03	January 1, 2020
Stand-alone low-temperature units (new)	HFC-227ea, KDD6, R-125/290/134a/600a (55.0/1.0/42.5/1.5), R-404A, R-407A, R-407B, R-407C, R-407F, R-410A, R-410B, R-417A, R-421A, R-421B, R422A, R-422B, R-422C, R-422D, R-424A, R-428A, R434A, R-437A, R-438A, R-507A, RS-44 (2003 formulation)	January 1, 2020
Refrigerated food processing and dispensing equipment (new)	HFC-227ea, KDD6, R-125/ 290/ 134a/ 600a (55.0/1.0/42.5/1.5), R-404A, R-407A, R-407B, R-407C, R-407F, R-410A, R-410B, R417A, R-421A, R-421B, R-422A, R-422B, R-422C, R-422D, R424A, R-428A, R-434A, R-437A, R-438A, R-507A, RS-44 (2003 formulation)	January 1, 2021
Vending machines (retrofit)	R-404A, R-507A	January 1, 2022

End-Use Category: Refrigeration		
End-Use	Prohibited Substitutes	Effective Date
Vending machines (new)	FOR12A, FOR12B, HFC-134a, KDD6, R125/290/134a/600a (55.0/1.0/42.5/1.5), R-404A, R407C, R-410A, R-410B, R-417A, R-421A, R-422B, R422C, R-422D, R-426A, R-437A, R-438A, R-507A, RS-24 (2002 formulation), SP34E	January 1, 2022

End-Use Category: Foams		
End-Use	Prohibited Substitutes	Effective Date
Rigid polyurethane and polyisocyanurate laminated boardstock	HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof	January 1, 2020
Flexible polyurethane	HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof	January 1, 2020
Integral skin polyurethane	HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, Formacel Z-6	January 1, 2020
Polystyrene extruded sheet	HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, Formacel Z-6	January 1, 2020
Phenolic insulation board and bunstock	HFC-143a, HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof	January 1, 2020
Rigid polyurethane slabstock and other	HFC-134a, HFC-245fa, HFC-365mfc and blends thereof; Formacel TI, Formacel Z-6	January 1, 2020
Rigid polyurethane appliance foam	HFC-134a, HFC-245fa, HFC-365mfc and blends thereof; Formacel TI, Formacel Z-6	January 1, 2020
Rigid polyurethane commercial refrigeration and sandwich panels	HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, Formacel Z-6	January 1, 2020
Polyolefin	HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, Formacel Z-6	January 1, 2020
Rigid polyurethane marine flotation foam	HFC-134a, HFC-245fa, HFC-365mfc and blends thereof; Formacel TI, Formacel Z-6	January 1, 2020
Polystyrene extruded boardstock and billet (XPS)	HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, Formacel B, Formacel Z-6	January 1, 2021
Rigid polyurethane high-pressure two-component spray foam	HFC-134a, HFC-245fa, and blends thereof; blends of HFC365mfc with at least 4 percent HFC-245fa, and commercial blends of HFC-365mfc with 7 to 13 percent HFC-227ea and the remainder HFC-365mfc; Formacel TI	January 1, 2020

End-Use Category: Foams		
End-Use	Prohibited Substitutes	Effective Date
Rigid polyurethane low-pressure two-component spray foam	HFC-134a, HFC-245fa, and blends thereof; blends of HFC365mfc with at least 4 percent HFC-245fa, and commercial blends of HFC-365mfc with 7 to 13 percent HFC-227ea and the remainder HFC-365mfc; Formacel TI	January 1, 2021
Rigid polyurethane one-component foam sealants	HFC-134a, HFC-245fa, and blends thereof; blends of HFC365mfc with at least 4 percent HFC-245fa, and commercial blends of HFC-365mfc with 7 to 13 percent HFC-227ea and the remainder HFC-365mfc; Formacel TI	January 1, 2020

WAC 173-443-050 Exemptions.

(1) The following table lists exemptions to the prohibitions in WAC 173-443-040.

End-Use Category	Prohibited Substitutes	Acceptable Uses
Aerosol propellants	HFC-134a	Cleaning products for removal of grease, flux and other soils from electrical equipment; refrigerant flushes; products for sensitivity testing of smoke detectors; lubricants and freeze sprays for electrical equipment or electronics; sprays for aircraft maintenance; sprays containing corrosion preventive compounds used in the maintenance of aircraft, electrical equipment or electronics, or military equipment; pesticides for use near electrical wires, in aircraft, in total release insecticide foggers, or in certified organic use pesticides for which EPA has specifically disallowed all other lower-GWP propellants; mold release agents and mold cleaners; lubricants and cleaners for spinnerettes for synthetic fabrics; duster sprays specifically for removal of dust from photographic negatives, semiconductor chips, specimens under electron microscopes, and energized electrical equipment; adhesives and sealants in large canisters; document preservation sprays; FDA-approved MDIs for medical purposes; wound care sprays; topical coolant sprays for pain relief; products for removing bandage adhesives from skin; bear spray; and pepper spray.
Aerosol propellants	HFC-227ea and blends of HFC-	FDA-approved MDIs for medical purposes.

End-Use Category	Prohibited Substitutes	Acceptable Uses
	227ea and HFC-134a	
Air conditioning	HFC-134a	Military marine vessels where reasonable efforts have been made to ascertain that other alternatives are not technically feasible due to performance or safety requirements.
Air conditioning	HFC-134a and R-404A	Human-rated spacecraft and related support equipment where reasonable efforts have been made to ascertain that other alternatives are not technically feasible due to performance or safety requirements.
Foams – except rigid polyurethane spray foam	All substitutes	Military applications where reasonable efforts have been made to ascertain that other alternatives are not technically feasible due to performance or safety requirements until January 1, 2022.
Foams – except Rigid polyurethane spray foam	All substitutes	Space- and aeronautics-related applications where reasonable efforts have been made to ascertain that other alternatives are not technically feasible due to performance or safety requirements until January 1, 2025.
Rigid polyurethane two-component spray foam	All substitutes	Military or space- and aeronautics-related applications where reasonable efforts have been made to ascertain that other alternatives are not technically feasible due to performance or safety requirements until January 1, 2025.

WAC 173-443-060 Prohibitions.

- (1) No person may offer for sale, lease, rent, install, or otherwise cause to enter into Washington commerce any product or equipment that contains, uses, or will use HFCs or other substitutes prohibited for an end-use in WAC 173-443-040 unless an exemption is provided for in WAC 173-443-050.
- (2) Products and equipment manufactured prior to the applicable effective date of a prohibition in WAC 173-443-040 may be sold, leased, rented, or otherwise introduced into Washington commerce after the date of prohibition.
 - (a) For products and equipment imported from outside the United States, the date of import may be considered the date of manufacture.
 - (b) For refrigeration equipment and chillers not factory-charged or pre-charged with refrigerant, the date the refrigerant is added to the equipment is the date of manufacture.

- (c) For refrigeration equipment and chillers that are factory-charged or pre-charged with refrigerant, the date the manufacturer affixed an equipment label indicating the equipment's date of manufacture is the date of manufacture.
 - (d) Spray foam systems in the possession of a manufacturer before an applicable prohibition date where the blowing agent has not yet been applied on site may be used after the prohibition date.
- (3) Except where an existing system is retrofit, nothing in this chapter requires a person that acquired a product or equipment containing or using a prohibited substitute prior to the effective date of a prohibition in WAC 173-443-040 to cease use of that product or equipment.

WAC 173-443-070 Product labeling and disclosure requirements.

- (1) No later than one year following an applicable prohibition date, or no later than one year following the effective date of this chapter, a manufacturer must disclose the substitutes contained, used, or to be used in the products or equipment applicable to the end-uses in WAC 173-443-040 and the end-use categories in WAC 173-443-050.
- (2) Manufacturers of aerosol propellants must disclose the substitutes through one of following methods:
- (a) For aerosol propellants used in products regulated by the U.S. Food and Drug Administration excluding prescription drug products, the U.S. Consumer Product Safety Commission, or products that are not covered by (2)(b):
 - (i) New dedicated label;
 - (ii) Existing product label;
 - (iii) On-packaging label;
 - (iv) On-product symbol or code; and online disclosure; or
 - (v) On-packaging symbol or code; and online disclosure.
 - (b) For aerosol propellants used in products regulated by EPA under the Federal Insecticide Fungicide and Rodenticide Act, the Occupational Safety and Health Administration, or prescription drug products regulated by the U.S. Food and Drug Administration:
 - (i) Any option in (2)(a)(i) through (v); or
 - (ii) A product document, such as a Safety Data Sheet (SDS), that complies with the 29 CFR 1910.1200; and online disclosure.
- (3) Manufacturers of refrigeration products and equipment (including refrigeration products and equipment that contain foam) must disclose the substitutes through one of following methods:

- (a) For the refrigerant used in household refrigerators and freezers, household refrigerators and freezers – compact, and household refrigerators and freezers – built-in:
 - (i) New dedicated label;
 - (ii) UL or equivalent safety label, or
 - (iii) On-product or on-equipment symbol or code; and online disclosure.

- (b) For the foam blown in or installed by the manufacturer of household refrigerators and freezers, household refrigerators and freezers – compact, and household refrigerators and freezers – built-in:
 - (i) New dedicated label;
 - (ii) UL or equivalent safety label;
 - (iii) Owner’s manual; or
 - (iv) On-product or on-equipment symbol or code; and online disclosure.

- (c) For the refrigerant used in commercial refrigeration equipment:
 - (i) New dedicated label;
 - (ii) UL or equivalent safety label; or
 - (iii) On-product or on-equipment symbol or code; and online disclosure.

- (d) For the foam blown in or installed by the manufacturer of commercial refrigeration equipment:
 - (i) New dedicated label;
 - (ii) UL or equivalent safety label;
 - (iii) Owner’s manual; or
 - (iv) On-product or on-equipment symbol or code; and online disclosure.

- (4) Manufacturers of centrifugal and positive displacement chillers must disclose the substitutes through one of following methods:
 - (a) For the refrigerant used in centrifugal and positive displacement chillers:
 - (i) New dedicated label;
 - (ii) UL or equivalent safety label; or
 - (iii) On-product or on-equipment symbol or code; and online disclosure.

 - (b) For the foam blown in or installed by the manufacturer of centrifugal and positive displacement chillers:
 - (i) New dedicated label;
 - (ii) UL or equivalent safety label;
 - (iii) Owner’s manual; or
 - (iv) On-product or on-equipment symbol or code; and online disclosure.

- (5) Manufacturers of foam products must disclose the substitutes through one of following methods:

- (a) For foam non-retail products:
 - (i) Unit label; or
 - (ii) One of the following methods for each individual product within a unit:
 - (A) New dedicated label;
 - (B) Existing product label;
 - (C) A label required by another jurisdiction with sufficient HFC disclosure requirements; and online disclosure; or
 - (D) On-product symbol or code; and online disclosure.

- (b) For foam retail products:
 - (i) New dedicated label;
 - (ii) Existing product label;
 - (iii) On-packaging label;
 - (iv) A label required by another jurisdiction with sufficient HFC disclosure requirements; and online disclosure;
 - (v) On-product symbol or code; and online disclosure; or
 - (vi) On-packaging symbol or code; and online disclosure.

- (c) For the foam blowing agent used in spray foam:
 - (i) New dedicated label on the canister or cylinders;
 - (ii) Existing product label on the canister or cylinders;
 - (iii) On-packaging label; or
 - (iv) On-packaging symbol or code; and online disclosure.

- (6) Ecology must approve in advance the use of a symbol or code to comply with this section.

- (7) Ecology must approve in advance the use of another jurisdiction's HFC disclosure label.

- (8) The requirements of this section do not apply to aircraft and aircraft components subject to certification requirements of the Federal Aviation Administration.

WAC 173-443-080 Manufacturer notification.

- (1) The manufacturer of a product or equipment that contains, uses, or will use HFCs or other substitutes prohibited in WAC 173-443-040 or a representative on behalf of a manufacturer, must report to ecology consistent with WAC 173-443-090 and WAC 173-443-100.

- (2) It is only necessary for one person or entity to report with respect to a particular product or equipment.

- (3) In the event of a failure by at least one person to provide a complete, accurate, and timely report for a product or equipment within a specific end-use, ecology will require

information from manufacturers associated with the product or equipment in the following order of precedence:

- (a) The person or entity that manufactured, produced, or assembled the product or equipment, unless it has no presence in the United States.
 - (b) The person or entity that marketed the product or equipment under its name or trademark, unless it has no presence in the United States.
 - (c) The first person or entity, whether an importer or a distributor, that owned the product or equipment in the United States.
- (4) This section in no way limits the liability of any manufacturer as defined in WAC 173-443-030 associated with a product or equipment from enforcement under chapter 70.94 RCW.

WAC 173-443-090 Initial notification.

- (1) By December 31, 2019, each manufacturer or its representative must provide ecology an initial status notification of the status of all products and equipment within each applicable end-use that contains, uses, or will use HFCs or other substitutes prohibited in WAC 173-443-040.
- (2) An initial status notification must include all covered products and equipment that the manufacturer offers for sale, leases, rents, installs, or otherwise causes to enter into Washington commerce.
- (3) Each manufacturer must submit an initial status notification using ecology's notification form. The current form is available on ecology's website.
 - (a) This initial status notification must include:
 - (i) Contact information on the manufacturer.
 - (ii) The name of the party authorized to represent the manufacturer for purposes of providing initial status notifications and status updates.
 - (iii) All products and equipment within an end-use that are applicable to the manufacturer.
 - (iv) Which HFCs or other prohibited substitutes are being used by products or equipment within each applicable end-use.
 - (v) Signature and certification by the authorized representative for the manufacturer.

WAC 173-443-100 Status update notification.

- (1) Within one hundred twenty days after the date of a prohibition in WAC 173-443-040, each manufacturer affected by the prohibition or its representative must provide ecology with an updated status notification using ecology's form. This notification must include:

- (a) Whether the manufacturer has ceased the use of HFCs or other substitutes prohibited in WAC 173-443-040 within each applicable end-use.
- (b) What, if any, HFCs other prohibited substitutes remain in use.
- (c) Updated responses on all information requested in the initial status notification required in WAC 173-443-090.

WAC 173-443-110 Severability.

If any provision of this chapter or its application is held invalid, the remainder of the chapter or application of the provision is not affected.