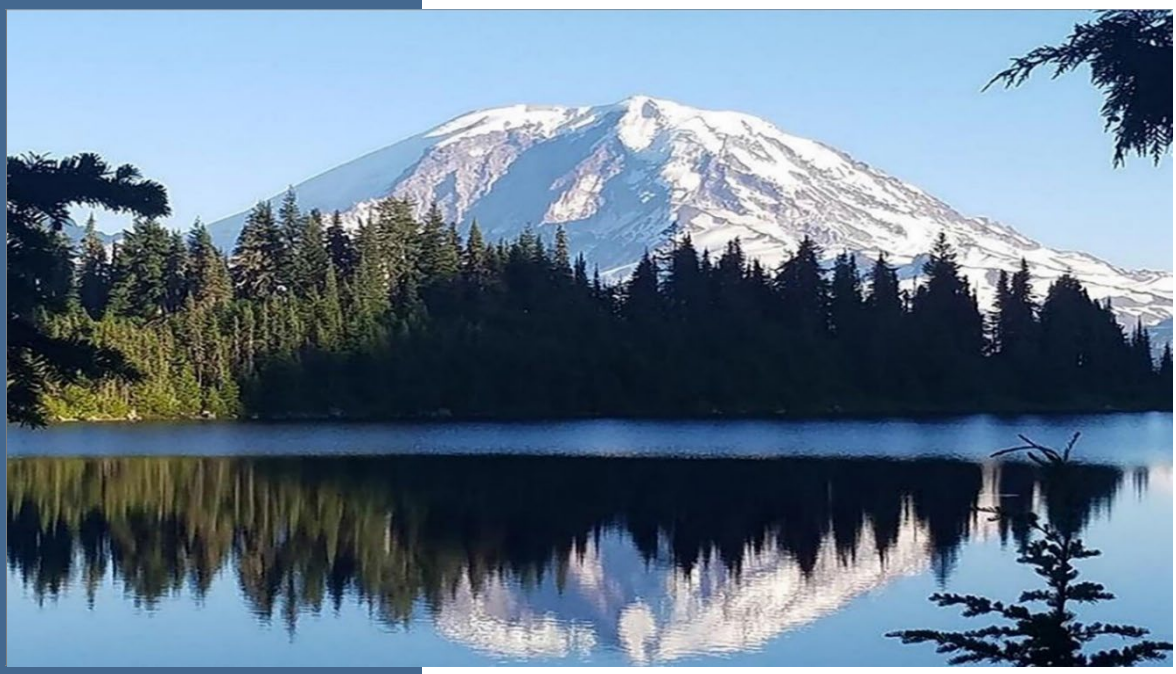

Hydrofluorocarbons Adopted Rule Language: Informational Guidebook

Chapter 173-443 WAC Hydrofluorocarbons (HFCs) and Other Fluorinated Greenhouse Gases

Climate Pollution Reduction Program

Washington State Department of Ecology

Olympia, Washington

December 2023, Publication 23-14-025

DEPARTMENT OF ECOLOGY
State of Washington

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For specific questions about Chapter 173-443 WAC Hydrofluorocarbons (HFCs) and Other Fluorinated Greenhouse Gases rule, please contact Ecology staff at HFC@ecy.wa.gov.

Website: Washington State Department of Ecology[1]

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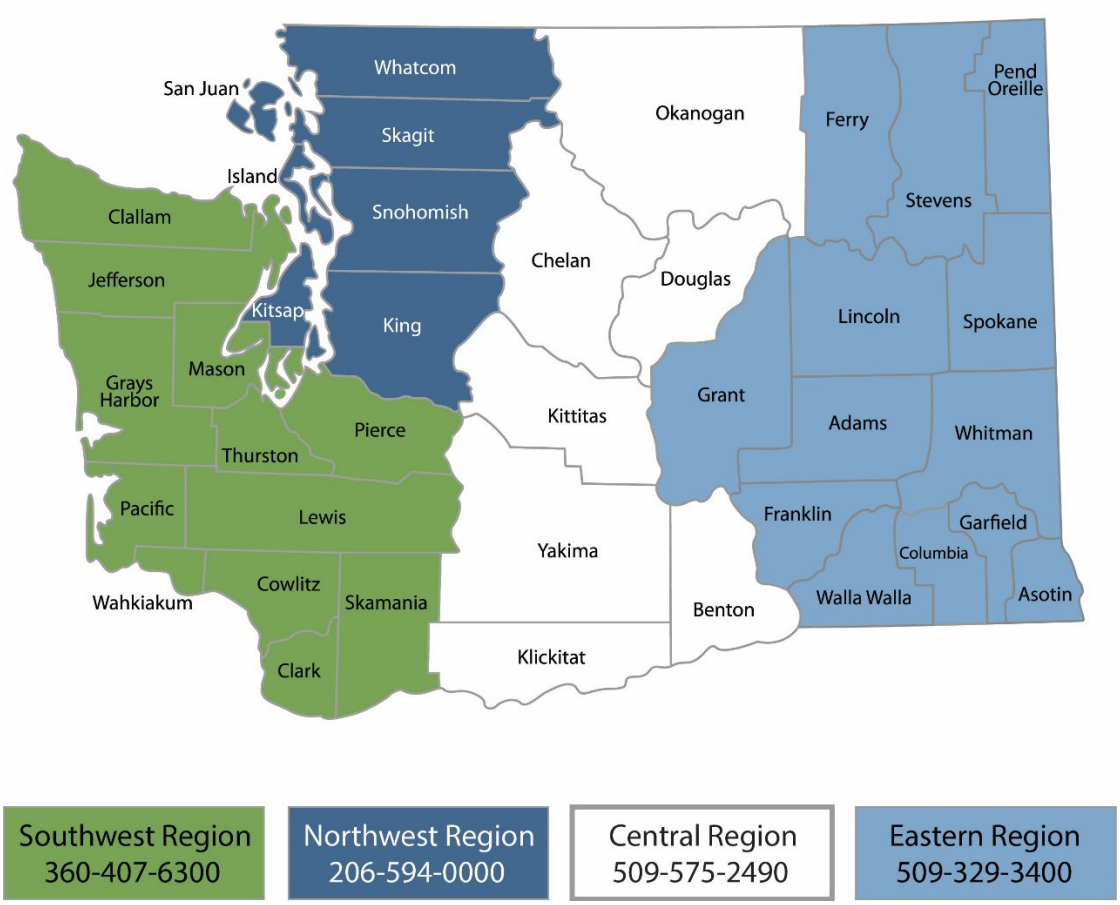
[1] http://www.ecology.wa.gov/contact

Department of Ecology's Regional Offices

Map of Counties Served



Region	Counties served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	PO Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	PO Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W Alder St Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N Monroe Spokane, WA 99205	509-329-3400
Headquarters	Across Washington	PO Box 46700 Olympia, WA 98504	360-407-6000

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ECOLOGY
State of Washington

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Introduction

Hydrofluorocarbons (HFCs) are a type of fluorinated gas commonly used in refrigeration and air conditioning. Over recent decades, they gained popularity as a replacement for chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs), which were shown to be depleting the Earth's ozone layer. However, HFCs are a short-lived "super pollutant" that can be thousands of times more potent than carbon dioxide. Due to increased global demand for cooling and refrigeration, they are now responsible for the fastest-growing greenhouse gas emissions in the world and are having a disproportionate impact on the climate crisis.

In 2021, the Washington Legislature passed HB 1050, Hydrofluorocarbons – Emissions Reduction (Chapter 70A.60 RCW). This law requires Ecology to establish maximum global warming potential (GWP) thresholds for new stationary refrigeration and air conditioning equipment sold in Washington and to establish a refrigerant management program to reduce HFC leakage. It also requires Ecology to adopt GWP thresholds for refrigerants used in ice rinks and prohibits the sale of small cans of HFC refrigerant with a GWP greater than 150, as well as non-essential consumer products (e.g., air horns, noisemakers) containing these refrigerants.

This guidebook provides supplemental information to aid the public in reviewing the adopted rule. It is intended to provide general information about the Chapter 173-443 WAC Hydrofluorocarbons (HFCs) and Other Fluorinated Greenhouse Gases rule and how it may affect them. In the event that any provision of this guidebook conflicts with the provision of Chapter 70A.60 RCW or the adopted rule language, the statute and adopted rule language are controlling. This guidebook will be updated as necessary.

Benefits of adopted rule

Ecology estimates that the rule, will result in significant greenhouse gas (GHG) emissions reductions that provide benefits and savings to Washington consumers and industries, through energy efficiency gains and lower cost alternatives. Equipment containing 50 pounds or more of refrigerant is estimated to leak the equivalent of 5.8 million metric tonnes of CO2 equivalent (MMTCO2e) statewide every year. Of this leakage, we estimate 3.4 MMTCO2e are HFCs. Combined with other statewide carbon reduction programs, HFC emission reductions will help Washington achieve its statutory GHG emission reduction limit of 95 percent below 1990 levels by 2050. The GHG emissions reductions from this proposed action would reduce the equivalent of about half a million gasoline-powered vehicles driven for one year.

Rulemaking timeline

Date	Event
August 16, 2021	Announced rulemaking (filed CR-101 form)
December 2021	Proposed recommendations to the legislature about how to manage end-of-life of HFCs/refrigerants
February 2022 – January 2023	Hold stakeholder meetings Develop and prepare rule language
July 13, 2023	Propose rule (file CR-102 form) Start public comment period
August 24, 2023	Hold public hearing(s)
August 31, 2023	End public comment period
Summer 2023 – Fall 2023	Review public comments Prepare adoption package
November 30, 2023	Adopt rule (file CR-103 form)
December 2023	Rule effective 31 days after filing

For more information on this rule and how to comment, as well as information about public hearings, please visit our website: WAC 173-443-455 - Washington State Department of Ecology.

Part 1: Prohibitions on the use of certain HFCs

This section of the guidebook covers Washington setting maximum global warming potential (GWP) thresholds for new stationary air-conditioning and refrigeration equipment, including ice rinks and motor vehicle air conditioning (MVAC).

What does the adopted rule do?

Ecology's adopted rule restricts the use of HFCs and other fluorinated gases with a GWP more than 150 in refrigeration, air conditioning, and heat pump products and equipment. The rule prohibits the manufacture and sale of products containing restricted refrigerants in Washington by the dates outlined in the tables below. The restrictions are listed by sector and subsector in the sections below.

Who is affected?

These requirements apply to manufacturers of new equipment and to owners of existing equipment that use a refrigerant with a GWP greater than 150. You may be affected by this rule if you:

- Offer for sale, lease, rent, install, or otherwise bring into Washington commerce equipment that contains or uses a prohibited substance;
- Own or operate stationary refrigeration or air conditioning equipment containing a prohibited substance;
- Install, repair, maintain, service, replace, or dispose of a stationary refrigeration or air conditioning system;
- Distribute, reclaim, refrigerant with a GWP greater than 150.

Individual homeowners are **not** directly impacted by this rulemaking.

What sectors and subsectors are covered by the rule? What is exempt?

Ecology's rule restricts high-GWP HFCs used in products and equipment in the refrigeration and air conditioning sectors. These restrictions and exemptions are summarized in the pages that follow.

Prohibitions and Requirements for New Products and Equipment Listed in Table 1 (WAC 173-443-040(1), 050(1), and 060)

No person may offer for sale, lease, rent, install, or otherwise cause to enter Washington commerce any new product or equipment containing a prohibited substance listed in this section except for those exemptions provided.

These products and equipment listed may be sold, leased, rented, imported, exported, distributed, installed, used, or otherwise introduced into Washington commerce after the date of the prohibition if it was **manufactured prior to the date of prohibition**.

The prohibitions in this section do not apply to retrofit equipment except where explicitly listed below. In addition, there is nothing in this section that would require a person who acquired a product or equipment listed that contains a prohibited substance before the effective date of the prohibition to stop using that product or equipment.

Manufacturers of these products and equipment must disclose the substance(s) contained or used through labeling as described in WAC 173-443-060(4).

In addition to labeling disclosure requirements, manufacturers of products or equipment that contains or uses prohibited substances as of July 28, 2020, for any of the end uses listed in this section, must report to Ecology as outlined in WAC 173-443-060(5).

End-Use Category: Aerosol Propellants

Prohibited Substances for New Products and Equipment – Aerosol Propellants

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

Exemptions for New Products and Equipment – Aerosol Propellants

End-Use	Prohibited Substances	Exemptions
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;

End-Use	Prohibited Substances	Exemptions
		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-227ea and HFC-134a	FDA-approved MDIs for medical purposes.

End-Use Category: Air Conditioning

Prohibited Substances for New Products and Equipment – Air Conditioning

End-Use	Prohibited Substances	Effective Date
Centrifugal chillers - Cooling only (New)	FOR12A, FOR12B, HFC-134a, HFC-227ea, HFC-236fa, HFC-245fa, 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, R-438A, R-507A, RS-44 (2003 composition), THR-03	January 1, 2024
Positive displacement chillers - Cooling only (New)	FOR12A, FOR12B, HFC-134a, HFC-227ea, KDD6, 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-424A, R-434A, R-437A, R-438A, R-507A, RS-44 (2003 composition), SP34E, THR-03	January 1, 2024
Centrifugal chillers - Heating and heating and cooling (New)	FOR12A, FOR12B, HFC-134a, HFC-227ea, HFC-236fa, HFC-245fa, 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, R-438A, R-507A, RS-44 (2003 composition), THR-03	January 1, 2025
Positive displacement chillers - Heating and heating and cooling (New)	FOR12A, FOR12B, HFC-134a, HFC-227ea, KDD6, 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-424A, R-434A, R-437A, R-438A, R-507A, RS-44 (2003 composition), SP34E, THR-03	January 1, 2025

Exemptions for New Products and Equipment – Air Conditioning

End-Use	Prohibited Substances	Exemptions
Air conditioning: Centrifugal chillers Positive displacement chillers	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: Centrifugal chillers Positive displacement chillers	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.

End-Use Category: Refrigeration

Prohibited Substances for New Products and Equipment – Refrigeration

End-Use	Prohibited Substances	Effective Date
Cold storage warehouses (New)	HFC-227ea, R-125/290/134a/600a (55.0/1.0/42.5/1.5), R-404A, R-407A, R-407B, R-410A, R-410B, R-417A, R-421A, R-421B, R-422A, R-422B, R-422C, R-422D, R-423A, R-424A, R-428A, 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, R-424A, R-426A, R-428A, R-434A, R-437A, R-438A, R-507A, RS-24 (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, R-424A, R-426A, R-428A, R-434A, R-437A, R-438A, R-507A, RS-24 (2002 formulation), RS-44 (2003 formulation), SP34E, THR-03	January 1, 2021
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, R-424A, R-426A, R-428A, R-434A, R-437A, R-438A, R-507A, RS-24 (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, R-428A, R-434A, R-507A	January 1, 2020

End-Use	Prohibited Substances	Effective Date
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, except for automatic commercial ice machines (Retrofit)	R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R-428A, R-434A, R-507A	January 1, 2020
Remote condensing units, except for automatic commercial ice machines (New)	HFC-227ea, R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R-428A, R-434A, R-507A	January 1, 2020
Automatic commercial ice machines - Remote condensing units (New and retrofit)	R-404A, R-507, R-507A, R-428A, R-422C, R-434A, R-421B, R-408A, R-422A, R-407B, R-402A, R-422D, R-421A, R-125/R-290/R-134a/R-600a (55.0/1.0/42.5/1.5), R-422B, R-424A, R-402B, GHG-X5, R-417A, R-438A, and R-410B	January 1, 2025
Stand-alone units, except for automatic commercial ice machines (Retrofit)	R-404A, R-507A	January 1, 2020
Stand-alone medium-temperature units (New)	FOR12A, FOR12B, HFC-134a, 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, R-422A, R-422B, R-422C, R-422D, R-424A, R-426A, R-428A, R-434A, R-437A, R-438A, 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, R-422A, R-422B, R-422C, R-422D, R-424A, R-428A, R-434A, R-437A, R-438A, R-507A, RS-44 (2003 formulation)	January 1, 2020
Automatic commercial ice machines - Stand-alone units (New and retrofit)	R-404A, R-507, R-507A, R-428A, R-422C, R-434A, R-421B, R-408A, R-422A, R-407B, R-402A, R-422D, R-421A, R-125/R-290/R-134a/R-600a (55.0/1.0/42.5/1.5), R-422B, R-424A, R-402B, GHG-X5, R-417A, R-438A, R-410B, R-407A, R-410A, R-442A, R-417C, R-407F, R-437A, R-407C, RS-24 (2004 formulation), and HFC-134a	January 1, 2025
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, R-417A, R-421A, R-421B, R-422A, R-422B, R-422C, R-422D, R-424A, 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
Vending machines (New)	FOR12A, FOR12B, HFC-134a, KDD6, 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-426A, R-437A, R-438A, R-507A, RS-24 (2002 formulation), SP34E	January 1, 2022

Exemptions for New Products and Equipment – Refrigeration

There are no exemptions for the refrigeration equipment requirements in Table 1.

End-Use Category: Foams

Prohibited Substances for New Products and Equipment – Foams

End-Use	Prohibited Substances	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 HFC-365mfc 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
Rigid polyurethane low-pressure two-component spray foam	HFC-134a, HFC-245fa, and blends thereof; blends of HFC-365mfc 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 HFC-365mfc 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

Exemptions for New Products and Equipment – Foams

End-Use	Prohibited Substances	Exemptions
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; and 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.

Prohibitions and Requirements for New or Retrofit Refrigeration Equipment Listed in Table 2 (WAC 173-443-040(2), 050(2), and 065)

No person may offer for sale, lease, rent, install, or otherwise cause to enter Washington commerce any new product or equipment containing a prohibited substance listed in the tables in this section except for those exemptions provided.

Refrigeration equipment manufactured prior to January 1, 2024, may be sold, leased, rented, imported, exported, distributed, installed, used, or otherwise introduced into Washington commerce until January 1, 2026.

Manufacturers of these products and equipment must disclose the substance(s) contained or used through labeling as described in WAC 173-443-065(3).

In addition to labeling disclosure requirements, manufacturers of any new or retrofit refrigeration equipment must maintain, for a minimum of five years, a copy of the following records:

- Sector or subsector of the equipment (refrigeration or air conditioning);
- Refrigerant(s) the equipment is designed to use;
- Date of manufacture or import;
- Name of the company or entity to whom the equipment was sold or otherwise distributed;
- The bill of lading; and
- The invoice.

Prohibited Substances for New or Retrofit Refrigeration Equipment

End-Use	Criteria	Prohibited Substances	Effective Date
Commercial refrigeration: Retail food refrigeration including chillers (New)	New refrigeration equipment with a full charge of more than 50 pounds of refrigerant	Refrigerants with a GWP greater than 150	January 1, 2025

End-Use	Criteria	Prohibited Substances	Effective Date
Commercial refrigeration: Retail food refrigeration including chillers (Retrofit)	Retrofit refrigeration equipment with a full charge of more than 50 pounds of refrigerant	Refrigerants with a GWP greater than 150	January 1, 2029
Commercial refrigeration: Cold storage warehouses (New)	New refrigeration equipment with a full charge of more than 50 pounds of refrigerant	Refrigerants with a GWP greater than 150	January 1, 2025
Commercial refrigeration: Cold storage warehouses (Retrofit)	Retrofit refrigeration equipment with a full charge of more than 50 pounds of refrigerant	Refrigerants with a GWP greater than 150	January 1, 2029
Industrial process refrigeration excluding chillers (New)	New refrigeration equipment with a full charge of more than 50 pounds of refrigerant	Refrigerants with a GWP greater than 150	January 1, 2025
Industrial process refrigeration excluding chillers (Retrofit)	Retrofit refrigeration equipment with a full charge of more than 50 pounds of refrigerant	Refrigerants with a GWP greater than 150	January 1, 2029
Chillers used for industrial process refrigeration (New)	New refrigeration equipment with a full charge of more than 50 pounds of refrigerant	Refrigerants with a GWP greater than 750	January 1, 2025
Chillers used for industrial process refrigeration (Retrofit)	Retrofit refrigeration equipment with a full charge of more than 50 pounds of refrigerant	Refrigerants with a GWP greater than 750	January 1, 2029
Ice rinks including chillers (New)	New refrigeration equipment with a full charge of more than 50 pounds of refrigerant	Refrigerants with a GWP greater than 150	January 1, 2024
Ice rinks including chillers (Retrofit)	Retrofit refrigeration equipment with a full charge of more than 50 pounds of refrigerant	Refrigerants with a GWP greater than 750	January 1, 2024

Exemptions for New or Retrofit Stationary Refrigeration Equipment

End-Use	Prohibited Substances	Exemptions
Commercial refrigeration: Retail food refrigeration, including chillers (New or retrofit)	Refrigerants with a GWP greater than 150	Equipment with 50 pounds or less of refrigerant; Replacement of a refrigeration component in an existing facility as part of normal maintenance provided the result does not meet the criteria of "new refrigeration equipment" as defined in WAC 173-443-030; Facilities with new refrigeration equipment with an approved building permit issued before the effective date of this chapter; and Mission-critical military end-uses, as defined in WAC 173-443-030.
Commercial refrigeration: Cold storage warehouses (New or retrofit)	Refrigerants with a GWP greater than 150	Equipment with 50 pounds or less of refrigerant; Replacement of a refrigeration component in an existing facility as part of normal maintenance provided the result does not meet the criteria of "new refrigeration equipment" as defined in WAC 173-443-030; Facilities with new refrigeration equipment with an approved building permit issued before the effective date of this chapter; and Mission-critical military end-uses, as defined in WAC 173-443-030.
Industrial process refrigeration, excluding chillers (New or retrofit)	Refrigerants with a GWP greater than 150	Equipment with 50 pounds or less of refrigerant; Replacement of a refrigeration component in an existing facility as part of normal maintenance provided the result does not meet the criteria of "new refrigeration equipment" as defined in WAC 173-443-030; Very low temperature (VLT) refrigeration or cooling uses; Facilities with new refrigeration equipment with an approved building permit issued before the effective date of this chapter; and

End-Use	Prohibited Substances	Exemptions
		Mission-critical military end-uses, as defined in WAC 173-443-030.
Chillers used for industrial process refrigeration (New or retrofit)	Refrigerants with a GWP greater than 750	Equipment with 50 pounds or less of refrigerant; Replacement of a refrigeration component in an existing facility as part of normal maintenance provided the result does not meet the criteria of "new refrigeration equipment" as defined in WAC 173-443-030; Very low temperature (VLT) refrigeration or cooling uses; Facilities with new refrigeration equipment with a building permit issued before the effective date of this chapter; and Mission-critical military end-uses, as defined in WAC 173-443-030.

Prohibitions and Requirements for New or Retrofit Air Conditioning Equipment Listed in Table 3 (WAC 173-443-040(3), 050(3), and 075)

No person may offer for sale, lease, rent, install, or otherwise cause to enter Washington commerce any new product or equipment containing a prohibited substance listed in the tables in this section except for those exemptions provided.

Air conditioning equipment manufactured prior to January 1, 2024, may be sold, leased, rented, imported, exported, distributed, installed, used, or otherwise introduced into Washington commerce until January 1, 2026.

Manufacturers of these products and equipment must disclose the substance(s) contained or used through labeling as described in WAC 173-443-075(3).

In addition to labeling disclosure requirements, manufacturers of any new or retrofit air conditioning equipment must maintain, for a minimum of five years, a copy of the following records:

- Sector or subsector of the equipment (refrigeration or air conditioning);
- Refrigerant(s) the equipment is designed to use;
- Date of manufacture or import;
- Name of the company or entity to whom the equipment was sold or otherwise distributed;
- The bill of lading; and
- The invoice.

Prohibited Substances for New or Retrofit Air Conditioning Equipment

End-Use	Criteria	Prohibited Substances	Effective Date
Room air conditioners and residential dehumidifiers (New)	New air conditioning equipment	Refrigerants with a GWP greater than 750	January 1, 2024
Room air conditioners and residential dehumidifiers (Retrofit)	Retrofit air conditioning equipment	Refrigerants with a GWP greater than 750	January 1, 2029
Other types of air conditioning equipment used in residential and nonresidential applications (New)	New air conditioning equipment	Refrigerants with a GWP greater than 750	January 1, 2026, if UL 60335-2-40 Edition 4 is adopted by the Washington state building code council by December 31, 2023; otherwise 24 months following adoption of the updated code
Other types of air conditioning equipment used in residential and nonresidential applications (Retrofit)	Retrofit air conditioning equipment	Refrigerants with a GWP greater than 750	January 1, 2029
Variable refrigerant flow (VRF) or volume system (New)	New air conditioning equipment	Refrigerants with a GWP greater than 750	January 1, 2026
Variable refrigerant flow (VRF) or volume system (Retrofit)	Retrofit air conditioning equipment	Refrigerants with a GWP greater than 750	January 1, 2029

Exemptions for New or Retrofit Stationary Air Conditioning Equipment

End-Use	Prohibited Substances	Exemptions
Room air conditioners and residential dehumidifiers (New or retrofit)	Refrigerants with a GWP greater than 750	Facilities with new air conditioning equipment with a building permit issued before the effective date of this chapter; and Mission-critical military end-uses, as defined in WAC 173-443-030.
Variable refrigerant flow (VRF) or volume system (New or retrofit)	Refrigerants with a GWP greater than 750	Facilities with new air conditioning equipment with a building permit issued before the effective date of this chapter; and Mission-critical military end-uses, as defined in WAC 173-443-030.

End-Use	Prohibited Substances	Exemptions
Other types of air conditioning equipment used in residential and nonresidential applications (New or retrofit)	Refrigerants with a GWP greater than 750	Facilities with new air conditioning equipment with a building permit issued before the effective date of this chapter; and Mission-critical military end-uses, as defined in WAC 173-443-030.

Prohibitions for Small Containers of Refrigerant and Non-essential Consumer Products Listed in Table 4 (WAC 173-443-040(4) and 085)

No person shall sell, offer for sale, or purchase a small container of refrigerant or a nonessential consumer product that contains a prohibited substance listed in the table in this section. There are no exemptions to these restrictions.

"Small container of refrigerant" means a container having more than two ounces and less than two pounds of a refrigerant that is designed or intended for consumer recharge of a motor vehicle air conditioning (MVAC) system or consumer appliance.

"Offer for sale" means to make a transaction available regardless of any potential outcome. "Offer for sale" includes advertising for sale in any media such as a publication or broadcast that carries advertising including visual displays and any print/electronic forms.

To best meet Ecology's website compliance expectations, restricted products with a GWP 150 or more:

1) Cannot be advertised as "available" or "in stock" at Washington stores, whether for in-store pickup or shipping/delivery;
2) Cannot be added to a customer's online shopping cart if a Washington store is selected as "My Store" or a Washington shipping/delivery location (e.g., zip code) has been entered; and
3) Cannot be purchased through the website if the customer's shipping/delivery/pick-up address is in Washington (i.e., once a Washington address is entered, the transaction cannot proceed to entry of payment information).

This restriction became effective, following the effective date of the statute, on July 25, 2021. There is no sell through for these products or restriction.

Prohibited Substances for Small Containers of Refrigerant and Nonessential Consumer Products

End-Use	Prohibited Substances	Effective Date
Small containers of refrigerant	Substitutes with a GWP greater than 150	July 25, 2021

End-Use	Prohibited Substances	Effective Date
Nonessential consumer products	Substitutes with a GWP greater than 150	July 25, 2021

Variances (WAC 173-443-095)

An applicant may apply to Ecology for a variance from the prohibitions of WAC 173-443-040, Table 2 or Table 3, prohibited substances for new or retrofit refrigeration and air conditioning equipment. Ecology may grant a variance if it determines that the request meets the conditions of WAC 173-443-095(2) and (3).

Part 2: Refrigerant Management Program

The purpose of the Refrigerant Management Program (RMP) is to reduce GHG emissions from stationary commercial refrigeration and air-conditioning systems, which includes the installation and servicing of equipment systems using high-GWP refrigerants. This section covers what property owners/operators and facility managers need to know about the RMP and how it may impact them.

What does the refrigerant management program do?

The refrigerant management program will address emissions from refrigeration and air-conditioning equipment with more than 50 pounds of a refrigerant with a GWP greater than 150 operating in Washington. This will be accomplished by requiring owners to perform regular leak inspections and timely leak repairs.

Owners with equipment using refrigerants with a GWP greater than 150 will not be required to replace their existing equipment, if the equipment remains in good operating condition and detected leaks of refrigerants are repaired. Equipment owners will need to register with Ecology and participate in annual reporting based on equipment size.

Who is affected?

The RMP requirements apply to:

- Any owner or operator of a facility that has refrigeration or air conditioning system(s) with a full charge greater than 50 pounds of a refrigerant with a GWP greater than 150;
- Any person who installs, repairs, maintains, services, or disposes of refrigeration or air conditioning equipment; and
- Any person who wholesales, distributes, or reclaims any amount of refrigerants with a GWP greater than 150 in Washington.

NOTE: Beginning January 1, 2024, you must maintain records as outlined in the recordkeeping section (WAC 173-443-195) for a minimum of 5 years if you own or operate a facility that has a refrigeration or air- conditioning system with a full charge greater than 50 pounds of a refrigerant with a GWP greater than 150.

Understanding the charge of your equipment or system

Since the RMP requirements for a given facility varies by facility category, it is important to confirm the full refrigerant charge of the largest system. Full charge weight of a system can be determined by checking the equipment plate, reviewing the service records or by contacting your service provider or manufacturer.

California Air Resources Board provides a charge calculator (Microsoft Excel file) to calculate the charge from the size components in the system.

What are the requirements of the refrigerant management program?

The RMP requirements apply to the following systems:

- Industrial process refrigeration (IPR);
- Cold storage warehouses;
- Retail food refrigeration; and
- Air conditioning.

These regulations do not apply to systems containing less than 50 pounds of refrigerant.

Registration and fees (WAC 173-443-115 and 135)

If you are an owner/operator of equipment subject to the RMP and you have a business in operation as of January 1, 2024, then you are required to register by March 15 in the Refrigeration and Air Conditioning Management Platform (RAMP), as outlined in the table below. For businesses that are not in operation until after the effective date, registration to RAMP will be required by March 15 of the following year. i.e., a facility with a large system charge that begins operations on January 2, 2024, must register by March 15, 2025.

There is a one-time implementation fee for facilities with a large refrigeration or air conditioning systems, as outlined in Table 2.1. Additionally, there is an annual fee for facilities with a medium or large system. There is no implementation or annual fee for facilities with only a small system. All fees are due and payable to Ecology within 30 days of receipt of invoice following registration.

Owners/operators must register their facility and refrigeration or air conditioning equipment with Ecology according to the schedule in Table 2.1 below. Program participants can learn more how to register and pay fees by visiting the hydrofluorocarbon webpage.

Table 2.1. Registration deadlines and fees

System Charge (lbs.)	Registration Deadline	Implementation Fee	Annual Fee
≥ 1,500 (large)	March 15, 2024	$150	$370
200 ≤ 1,499 (medium)	March 15, 2026	None	$170
50 ≤ 199 (small)	March 15, 2028	None	None

If you are a wholesaler, distributer, or reclaimer of refrigerants, you are required to register in RAMP and will be required to report as outlined in the reporting section (WAC 173-443-215). There is no fee for wholesalers, distributers, or reclaimers of refrigerants.

Leak detection and monitoring (WAC 173-443-145)

Leak inspections

Owner/operators must ensure leak inspections are conducted for systems according to the schedule in Table 2.2 below. Leak inspections must be conducted with a calibrated refrigerant leak detection device or a bubble test. If a Section 608 certified technician performs the leak inspection, they may use another method determined appropriate by them. All visible and accessible components of a system must be inspected.

Table 2.2. Leak inspection requirements

Facility Category	Leak inspection frequency	Effective Date
Large (System with charge ≥ 1,500 lbs.)	Monthly (if Auto Leak Detection is not installed)	January 1, 2024
Medium (System with charge 200 ≤ 1,499 lbs.)	Every 3 months	January 1, 2026
Small (System with charge 50 ≤ 199 lbs.)	Yearly	January 1, 2028
Systems Not Operated Year-round (System with charge ≥50 lbs.)	Within 30 days of resuming operation; then every 3 months	See above effective dates

In addition to regularly scheduled leak inspections, system leak inspections are to be conducted:

- At the time of verification and follow up verification tests;
- Each time refrigerant is added in an amount equal to or greater than five (5) pounds, or one percent of the full charge, whichever is greater; and
- Each time oil residue is observed on any refrigerant circuit component indicating a refrigerant leak.

If a system is undergoing mothballing, these leak inspection requirements do not apply during that time. Mothballing means a system is intentionally shutdown for over 60 days AND the refrigerant has been evacuated from the system or affected component. The day the mothballed system resumes operation is the same day the leak inspection requirements resume. Systems in stand-by or emergency status are subject to the leak inspection requirements because the system still contains refrigerant.

If your systems (or portions of systems) are in an enclosed building and are continuously monitored by an automatic leak detection system, which is audited and calibrated annually, then you are not required to conduct regular leak inspections (see details in section on automatic leak detection system below).

Automatic leak detection (ALD)

If you are an owner/operator of large refrigeration systems (≥ 1,500 pounds of refrigerant), and intend to operate year-round, you are required to install an ALD system by January 1, 2025. This applies to systems which have:

- The refrigerant circuit located entirely within an enclosed building or structure; or
- The compressor, evaporator, condenser, or any other component of the refrigeration system is located inside an enclosed building or structure.

Installation of ALD is not required if the system is intended to be replaced or retrofit to use a low-GWP refrigerant before January 1, 2027.

NOTE: Owner/operators of refrigeration systems with less than 1,500 pounds of refrigerant (small and medium systems) may choose to install ALD if your systems meet the above criteria, and if you make this choice, you will not be required to conduct regular leak inspections.

Leak rate thresholds (WAC 173-443-155)

Leak rate thresholds for commercial refrigeration, industrial process refrigeration (IPR), and air conditioning systems are outlined in Table 2.3 below.

Table 2.3. Leak rate thresholds

End Use	Leak Rate Threshold
Cold Storage Warehouse or Retail Food Refrigeration	16%
Industrial Process Refrigeration (IPR)	24%
Air Conditioning	8%

The owner/operator of a facility with a system that exceeds the leak rate thresholds, shown above in Table 2.3, must notify Ecology through the Ecology by email at HFC@ecology.wa.gov within 30 days of determining the exceedance, followed by leak repair verification tests as required. Because the leak rate threshold is calculated over a 12-month rolling average, the leak rate threshold will continue to be exceeded for up to 12 months following the initial exceedance even when refrigerant is not added to the system over that time. Ecology will need to be notified each time refrigerant is added to the system within the time period it is exceeding the leak rate threshold. If there is an inspection, a leak found and repaired, but no refrigerant added, there would not need to be a subsequent notification.

If a leak rate threshold is exceeded and the leak is not repairable then the owner/operator will be required to submit a retrofit/retirement plan to Ecology within 90 days of the last repair verification test failure. When a retrofit/retirement plan is submitted, Ecology must be notified within 30 days of the completion of work in a retrofit/retirement plan.

Calculating your leak rate

Owners/operators must calculate the leak rate every time:

- There is a leak inspection conducted and
- Refrigerant is added to a system.

If the addition of refrigerant is made immediately following the installation of a new system, you are not required to conduct a leak rate calculation at that time.

The leak rate must be calculated using the 12-month rolling average method below:

$$Leak\ Rate = \frac{lb\ refrigerant\ added\ over\ previous\ 365\ day\ period}{lb\ refrigerant\ normally\ contained\ in\ the\ system\ at\ full\ charge}\ x\ 100\%$$

Repairing your leaks

Beginning January 1, 2024, all owners and/or operators of a facility that has a refrigeration or air conditioning system with a refrigerant charge greater than 50 pounds of a refrigerant with a GWP greater than 150 must ensure that all detected leaks are repaired.

- A refrigerant leak must be repaired by a certified technician within 14 calendar days of its detection, except when a longer period is allowed:
    - The time period to repair an identified leak is up to 45 days if the requirements in WAC 173-443-165(3) are met.
    - The time period to repair an identified leak is up to 120 days if the requirements in WAC 173-443-165(4) are met.
- Owners/operators must verify leaks have been repaired:
    - An **initial verification test** must be performed upon completion of any leak repair and before any additional refrigerant is added to the system.
    - If a system was evacuated to make the repair, a **follow-up verification test** must be performed within 14 days of the system returning to normal operating characteristics and conditions.
- If the verification test(s) indicates that repairs were not successful, owners/operators may have one (1) additional time period, equal in time to the first, to repair the leak. For example, if your initial time period to repair a leak was 14 days and you fail the required verification test(s), you have 14 additional days to repair the leak for a total of 28 days.
- If owners/operators fail to fix all identified leaks within the required timeframe, and do not have an approved exemption, they must create and implement a retrofit or retirement plan. They must also maintain records to demonstrate leak repair requirements were followed and included in the retrofit and retirement plan requirements.

Retrofit or retirement of equipment (WAC 173-443-175)

If a system cannot be repaired within the required timeframe and does not have an approved exemption (WAC 173-443-235) the owner/operator must create a retrofit or retirement plan in accordance with WAC 173-443-176. (Note: Starting January 1, 2029, a retrofit must be to a refrigerant with a GWP below 150.) If the system had reported an exceedance of the applicable leak rate threshold related to the discovery of the unrepairable leak, the plan must be submitted to Ecology within 90 days of the leak repair timeline expiring.

- The retrofit or retirement must be completed within 6 months of the leak repair timeframe expiring unless granted extra time.
- The retrofit or retirement plan must describe the retrofitted, or new, system and include the information required in WAC 173-443-175(1)(c).
- Owners/operators must repair all identified leaks as part of any retrofit.
- Owners/operators may request relief from the obligation to retrofit or retire a system if:
    - Within the 6-month plan time frame, the owner/operator can establish that the appliance is no longer leaking and,
    - They have successfully repaired all identified all leaks.

The retrofit or retirement plan requirements are halted during any time that a refrigeration or air conditioning system is undergoing “mothballing”, or intentionally shutting down for longer than 60 days where the refrigerant has been evacuated from the system. Once the system resumes operation, the requirements resume immediately.

Recordkeeping and reporting for owners and operators (WAC 173-443-195)

If you are an owner/operator of a facility with a refrigeration or air conditioning system(s) with a full charge greater than or equal to 200 pounds of a high-GWP refrigerant (medium and large systems as defined in Table 2.1 of registration and fees section), you must submit an annual facility report to Ecology by March 15 each year following the year your facility is registered. Facilities with only a small system (as defined in Table 2.1) are not required to submit an annual facility report. Annual fees will be invoiced following annual reporting. All fees are due and payable to Ecology within 30 days of receipt of invoice.

Annual facility reports must include the following information for the previous calendar year:

- All information required to register equipment in Ecology’s Refrigeration and Air Conditioning Management Platform (RAMP)
- Service and leak repair information
- Total weight in pounds of each type of refrigerant with a GWP of 150 or more that is:
    - Purchased;
    - Charged into the system;
    - Recovered from the system;
    - Stored in inventory at the facility, or stored at a different location for use in the facility, on the last day of the calendar year; and

- Shipped by the owner or operator for reclamation and for destruction.

Beginning January 1, 2024, all owners/operators of refrigeration or air conditioning systems with more than 50 pounds of a refrigerant with a GWP of 150 or more, must maintain, at a minimum, the following records for a minimum of 5 years:

- All registration information;
- Documentation of all leak detection systems, leak inspections, and annual audit and calibrations of ALD systems;
- Records of system service and refrigerant leak repairs and documentation of any conditions allowing more than 14 days to repair a refrigerant leak after detection;
- Any retrofit or retirement plans required;
- All required annual facility report information;
- Any application for an exemption and any Ecology notification of approval, denial, revocation, or modification of an exemption;
- Any plan or other written documentation required, signed by the facility's representative, indicating that the system will be replaced or retrofitted to a low-GWP refrigerant before January 1, 2027, in lieu of installing ALD;
- Invoices of high-GWP refrigerant purchases;
- Record of all shipments of high-GWP refrigerants for reclamation or destruction; and
- Records of all refrigeration or air condition systems component data, measurements, calculations, and assumptions used to determine full charge.

Records can be stored in physical or electronic format, but the records must be kept at the facility where the refrigeration or air conditioning system is in operation.

Recordkeeping and reporting for refrigerant wholesalers, distributors, and reclaimers

Recordkeeping for refrigerant wholesalers, distributors, and reclaimers (WAC 173-443-225)

Beginning January 1, 2024, all refrigerant wholesalers, distributors, and reclaimers must maintain, at minimum, the following records for a minimum of 5 years:

- All required annual report information
- Invoices of all refrigerants with a GWP of 150 or more received through sale or transfer and all refrigerant(s) distributed for sale or transfer. These invoices must include the:
  - Name of purchaser;
  - Date of sale or transfer;
  - Quantity sold or transferred;
  - Type of high-GWP refrigerant purchased, sold, or transferred.

A refrigerant distributor or wholesaler selling a refrigerant with a GWP of 150 or more to a purchaser that is an employer of a certified technician must obtain written documentation showing that the purchaser currently employs at least one certified technician.

Records can be stored in physical or electronic format but must be kept at the facility of the refrigerant wholesaler or distributor.

Reporting for refrigerant wholesalers, distributors, and reclaimers (WAC 173-443-215)

Refrigerant distributors or wholesalers

If you are a refrigerant wholesaler or, distributor, and/or reclaimer that sells, supplies, or distributes any amount of refrigerant with a GWP of 150 or higher, you are required to submit an annual report to Ecology starting March 15, 2025, and each year thereafter, for the previous calendar year in accordance with WAC 173-443-215(1).

These reporting requirements do not apply to the following purposes:

1. Selling to a refrigerant distributor or wholesaler for eventual resale
2. Providing to a person for reclamation or destruction

The annual report must cover all Washington facilities under the operational control of the refrigerant wholesaler or, distributor, or reclaimer and must provide annual statewide aggregated data including:

1. Contact information
2. Refrigerant distribution data

Refrigerant reclaimers

If you are a certified refrigerant reclaimer that reclaims any refrigerant with a GWP of 150 or more in Washington, you must submit an annual report to Ecology starting March 15, 2025, and each year thereafter, for the previous calendar year in accordance with WAC 173-443-215(2).

The annual report must cover all Washington facilities under the operational control of the refrigerant reclaimer and must provide annual statewide aggregated data including:

1. Contact information
2. Refrigerant reclamation data

Service Technicians - required service practices (WAC 173-443-205)

A person performing any installation, maintenance, service, repair, or disposal of a refrigeration or air conditioning system with a full charge greater than or equal to 50 pounds of a refrigerant with a GWP 150 or more must comply with ALL the following conditions:

- The person must hold a current, valid, and applicable certificate issued under 40 CFR 82.161;
- In preparing the equipment for recycling or disposal, the person may not intentionally disrupt the refrigerant circuit resulting in discharge to the atmosphere unless an attempt to recover the refrigerant is made using certified refrigerant recovery equipment;

- The person must evacuate the equipment in accordance with 40 CFR 82.156 when evacuation is required before opening equipment to atmospheric conditions (refrigerant may be returned to the equipment from which it was recovered or to another piece of equipment owned by the same person without being recycled or reclaimed);
- The person may not add an additional refrigerant charge of a refrigerant not compatible with the refrigerant contained in the system;
- The person may not add an additional refrigerant charge to a system known to have a refrigerant leak unless the additional charge is needed to maintain operations while preparing for or conducting the leak repair;
- The person must use refrigerant recovery or recycling equipment certified by EPA under 40 CFR 82.158;
- The person must evacuate refrigerant from a nonrefillable cylinder to a vacuum of 15 inches of mercury, relative to standard atmospheric pressure of 29.9 inches of mercury, before recycling or disposal; and
- The person must satisfy job site evacuation of refrigerants during recycling, recovering, reclaiming, or disposing in accordance with 40 CFR 82.156.

Exemptions to the RMP

The owner or operator of a facility that has a refrigeration or air conditioning system may apply to Ecology for an exemption from the leak repair or retrofit and retirement requirements. Ecology may grant an exemption if it determines the request meets the conditions described for the type of exemption and follows the application process.

Types of Exemptions (WAC 173-443-235)

For each type of exemption, the applicant must provide clear and convincing documentation that the requested exemption will not increase the overall risk to human health or the environment and meet the additional criteria below.

Impossibility.

At least one of the following criteria is met:

1. The component(s) or parts needed to complete a leak repair are not currently or potentially available; or
2. The applicant has made a good faith effort to repair all identified leaks in accordance with WAC 173-443-165 and to operate and maintain the system in accordance with manufacturer recommendations.

Force majeure.

All of the criteria are met:

1. The applicant cannot comply with the applicable requirements due to a force majeure event; and
2. The applicant has made a good faith effort to anticipate, address, and mitigate the impacts of any force majeure event.

Economic hardship.

All of the criteria are met:

1. The facility is a retail food facility or a small business, as defined in WAC 173-443-030;
2. Compliance with the applicable requirements would result in extreme financial hardship such as the closure of the facility or a substantial loss of revenue from the facility; and
3. The applicant has made a good faith effort to anticipate, address, and mitigate any potential noncompliance.

Application Process

If the facility's owner(s) and operator(s) are different persons or entities, the application for an exemption must be submitted by the operator(s) and must include an attestation signed by the owner(s) indicating they have reviewed and verified the accuracy of the information contained in the application.

What to include

The application must include the required information in WAC 173-443-235(3)(b)(i) through (vii). Only complete applications will be considered.

How to submit your application:

The application must be submitted in writing to either of the following addresses:

Ecology Air Quality Program
HFC Program
P.O. Box 47600
Olympia, WA 98504-7600; or

By email to: HFC@ecology.wa.gov

Application review timeline

After submitting, Ecology will review the application and:

1. Within 30 days of receipt of application, determine completeness of the application.
2. Within 60 days of determination of completeness, determine if and under what conditions the exemption will be permitted.
    a. The applicant and Ecology may mutually agree to a longer time period.
    b. During this time period, Ecology may request, and the applicant must provide, more information, if necessary, to reach a decision.
3. Ecology will notify the applicant of the decision in writing, and if approved, will specify the terms and conditions of the exemption in a letter to the applicant. Such terms and conditions may include a requirement that best management practices be followed or that mitigation measures identified in the applicant's proposed compliance plan be implemented.

Ecology will grant an exemption only to the applicant who applied for it and will not approve an exemption retroactively prior to receipt of the application. The applicant must comply with

the terms and conditions of an approved exemption to maintain its approved status. Ecology may revoke or modify an exemption approval if it determines the applicant no longer meets the specified approved criteria.

An applicant adversely affected by a denial of an exemption, by the terms and conditions of an approved exemption, or an ecology decision to revoke or modify an approved exemption may appeal ecology's decision to the pollution control hearings board pursuant to chapter 43.21B RCW.