

## WSR 23-15-048

## PROPOSED RULES

## DEPARTMENT OF ECOLOGY

[Order 21-02—Filed July 13, 2023, 9:47 a.m.]

## Original Notice.

Preproposal statement of inquiry was filed as WSR 21-17-110.

Title of Rule and Other Identifying Information: Ecology is proposing an amendment to chapter 173-443 WAC, Hydrofluorocarbons (HFCs) and other fluorinated greenhouse gases (formerly Hydrofluorocarbons, HFCs).

For more information on this rule making, visit <https://ecology.wa.gov/Regulations-Permits/Laws-rules-rulemaking/Rulemaking/WAC-173-443-455>.

Hearing Location(s): On August 24, 2023, at 10:00 a.m., webinar. Join online and see instructions <https://waecy-wa-gov.zoom.us/join/register/tZApceGhrj4pHNX4uhu3qnkiftq87WCQKwFp>; join by phone 253-215-8782, Meeting ID 844 6890 5361. Presentation and question and answer session followed by the hearing.

Date of Intended Adoption: November 29, 2023.

Submit Written Comments to: Linda Kildahl, US mail: Department of Ecology, Air Quality Program, P.O. Box 47600, Olympia, WA 98504-7600; or parcel delivery: Department of Ecology, Air Quality Program, 300 Desmond Drive S.E., Lacey, WA 98503. Submit comments by mail, online, or at the hearing <https://aq.ecology.commentinput.com?id=trCUMYBx2G>, by August 31, 2023 (close of comment period).

Assistance for Persons with Disabilities: Contact ecology ADA coordinator, phone 360-407-6831, Washington relay service or TTY call 711 or 877-833-6341, email [ecyADAcoordinator@ecy.wa.gov](mailto:ecyADAcoordinator@ecy.wa.gov), <https://ecology.wa.gov/About-us/Accessibility-equity/Accessibility> for more information, by August 17, 2023.

Purpose of the Proposal and Its Anticipated Effects, Including Any Changes in Existing Rules: To implement chapter 70A.60 RCW, the proposed rule amendments will:

- Establish maximum global warming potential (GWP) thresholds for HFCs used in new stationary refrigeration and air conditioning equipment, small cans of refrigerant, and certain nonessential consumer aerosol products.
- Establish a refrigerant management program with registration, leak inspection, leak repair, recordkeeping and reporting requirements for owners or operators of large stationary refrigeration and air conditioning systems.
- Establish required service practices for technicians who service stationary refrigeration and air conditioning systems.
- Amend product labeling and disclosure requirements.
- Establish new labeling and recordkeeping requirements.
- Update chapter 173-443 WAC to reflect other changes in the law.
- Revise the title of the chapter.

The proposed rule amendments will also add a new section to chapter 173-455 WAC to establish fees and a process for fee updates to cover the costs of administering and enforcing the refrigerant management program.

Reasons Supporting Proposal: In 2021, the legislature passed Hydrofluorocarbons—Emissions reduction (E2SHB 1050, codified in chapter 70A.60 RCW) to further reduce HFC and other high-GWP refrigerant emissions in Washington. The 2021 law authorized ecology to establish GWP

thresholds for refrigerants used in new stationary refrigeration and air conditioning equipment and to establish a refrigerant management program to reduce greenhouse gas (GHG) emissions from large stationary refrigeration and air conditioning systems operating in Washington.

The law requires ecology to adopt rules that:

- Enforce the statutory GWP threshold for HFCs used in new refrigeration equipment in ice rinks.
- Establish a refrigerant management program for large stationary refrigeration and air conditioning systems.
- Amend product labeling and disclosure requirements.

The law authorizes ecology to adopt rules that:

- Establish maximum GWP thresholds for HFCs used in new stationary refrigeration and air conditioning equipment.
- Establish new reporting, labeling, and recordkeeping requirements.
- Establish required service practices for technicians who service stationary refrigeration and air conditioning systems.
- Establish fees to support the refrigerant management program.

Statutory Authority for Adoption: Chapter 70A.60 RCW.

Statute Being Implemented: Chapter 70A.60 RCW.

Rule is not necessitated by federal law, federal or state court decision.

Name of Proponent: Department of ecology, governmental.

Name of Agency Personnel Responsible for Drafting: Linda Kildahl, Lacey, Washington, 360-706-3038; Implementation: Tamara Dumitrescu, Lacey, Washington, 360-338-2606; and Enforcement: Leonard Machut, Lacey, Washington, 360-890-6391.

A school district fiscal impact statement is not required under RCW 28A.305.135.

A cost-benefit analysis is required under RCW 34.05.328. A preliminary cost-benefit analysis may be obtained by contacting Linda Kildahl, Department of Ecology, Air Quality Program, P.O. Box 47600, Olympia, WA 98504-7600, phone 360-706-3038, Washington relay service or TTY call [711 or] 877-833-6341, email linda.kildahl@ecy.wa.gov.

This rule proposal, or portions of the proposal, is exempt from requirements of the Regulatory Fairness Act because the proposal:

Is exempt under RCW 19.85.025(3) as the rules relate only to internal governmental operations that are not subject to violation by a nongovernment party; rules are adopting or incorporating by reference without material change federal statutes or regulations, Washington state statutes, rules of other Washington state agencies, shoreline master programs other than those programs governing shorelines of statewide significance, or, as referenced by Washington state law, national consensus codes that generally establish industry standards, if the material adopted or incorporated regulates the same subject matter and conduct as the adopting or incorporating rule; rules only correct typographical errors, make address or name changes, or clarify language of a rule without changing its effect; and rule content is explicitly and specifically dictated by statute.

Is exempt under RCW 19.85.025(4).

Explanation of exemptions: Ecology baselines are typically complex, consisting of multiple requirements fully or partially specified by existing rules, statutes, or federal laws. Where the proposed rule

differs from this baseline of existing requirements, it is typically subject to (i.e., not exempt from) analysis required under the Regulatory Fairness Act (RFA), chapter 19.85 RCW, based on meeting criteria referenced in RCW 19.85.025(3) as defined by the Administrative Procedure Act in RCW 34.05.310. The small business economic impact statement (SBEIS) below includes a summary of the baseline for this rule making, and whether or how the proposed rule differs from the baseline.

Scope of exemption for rule proposal:

Is partially exempt:

Explanation of partial exemptions: Ecology baselines are typically complex, consisting of multiple requirements fully or partially specified by existing rules, statutes, or federal laws. Where the proposed rule differs from this baseline of existing requirements, it is typically subject to (i.e., not exempt from) analysis required under RFA based on meeting criteria referenced in RCW 19.85.025(3) as defined by the Administrative Procedure Act in RCW 34.05.310. The SBEIS below includes a summary of the baseline for this rule making, and whether or how the proposed rule differs from the baseline.

The proposed rule does impose more-than-minor costs on businesses.

#### Small Business Economic Impact Statement

This SBEIS presents the:

- Compliance requirements of the proposed rule.
- Results of the analysis of relative compliance cost burden.
- Consideration of lost sales or revenue.
- Cost-mitigating action taken by ecology, if required.
- Small business and local government consultation.
- Industries likely impacted by the proposed rule.
- Expected net impact on jobs statewide.

A small business is defined by RFA as having 50 or fewer employees. Estimated costs are determined as compared to the existing regulatory environment; the regulations in the absence of the rule. The SBEIS only considers costs to "businesses in an industry" in Washington state. This means that impacts, for this document, are not evaluated for government agencies.

The existing regulatory environment is called the "baseline" in this document. It includes only existing laws and rules at federal and state levels.

This information is excerpted from ecology's complete set of regulatory analyses for this rule making. For complete discussion of the likely costs, benefits, minimum compliance burden, and relative burden on small businesses, see the associated regulatory analyses document **(Ecology publication no. 23-02-081, July 2023)**.

**COMPLIANCE REQUIREMENTS OF THE PROPOSED RULE, INCLUDING PROFESSIONAL SERVICES: 2.2 Baseline:** The baseline for our analyses generally consists of existing rules and laws, and their requirements. This is what allows us to make a consistent comparison between the state of the world with and without the proposed rule amendments.

For this rule making, the baseline includes:

- The existing rule: Chapter 173-443 WAC, Hydrofluorocarbons (HFCs).

- The authorizing statute: Chapter 70A.60 RCW, Hydrofluorocarbons—Emissions reduction (ES2HB [E2SHB] 1112 passed in 2019; ES2HB [E2SHB] 1050 passed in 2021).
- The American Innovation and Manufacturing (AIM) Act of 2020, 42 USC 7675.
- EPA Significant New Alternatives Policy (SNAP) Program, 40 C.F.R. Part 82, Subpart G.
- EPA HFC Allowance Allocation and Reporting Program, 40 C.F.R. Part 84, Subpart A.
- The proposed EPA technology transitions rule: 87 F.R. 76738, Phasedown of Hydrofluorocarbons: Restrictions on the Use of Certain Hydrofluorocarbons Under Subsection (i) the American Innovation and Manufacturing Act of 2020.

We note that while the EPA rule making is occurring at the same time as this ecology rule making, its authorizing AIM Act indicates the likely baseline will include an EPA rule that phases down the production and consumption of HFCs by 85 percent by 2036. The proposed EPA rule is the best current representation of the specifics of this baseline element, and is likely to be adopted on a similar timeline as our proposed rule.

- The Kigali Amendment (2016) to the Montreal protocol on substances that deplete the ozone layer.

While they are not elements of baseline regulations in Washington state or at the federal level, we note the following are regulations that may apply to some of the entities impacted by the proposed rule amendments, if they sell products across multiple markets. Entities affected by similar regulations across multiple jurisdictions in which they do business may be able to take advantage of economies of scale, for example mitigating cost increases by streamlining production attributes for products sold across entire regions.

- California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 10 Climate Change, Article 4, Sub. article 5. Prohibitions on Use of Certain Hydrofluorocarbons in Stationary Refrigeration, Stationary Air-conditioning, and Other End-Uses.

- California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 10 Climate Change, Article 4, Sub. article 5.1 Management of High Global Warming Potential Refrigerants for Stationary Sources.

**2.3 Proposed rule amendments:** 2.3.1 Proposed amendments to manufacturer requirements: Baselines, proposed amendments, and expected impacts described in this section reflect the assumption that compliance behavior would be undertaken by manufacturers. We acknowledge that other participants along supply chains may incur some of the costs discussed in this section if manufacturers decide to pass on their compliance costs to their customers in the form of higher prices, but in the interest of avoiding double-counting of costs or benefits, we made the simplifying assumption that costs would be borne by manufacturers where this information was unavailable or unknown.

2.3.1.1 Adding centrifugal chillers to existing prohibitions: Baseline: Under the baseline, chapter 173-443 WAC lists specific prohibited substances and the prohibition effective dates for various end-uses of new products and equipment.

Proposed: The proposed rule amendments would add the following chillers to baseline prohibitions starting in 2025:

- Centrifugal chillers (heating; heating and cooling), effective 2025.

- Positive displacement chillers (heating; heating and cooling), effective 2025.

The proposed rule would also list automatic commercial ice machines with expanded lists of prohibited refrigerants, rather than applying a maximum GWP threshold. The list included in our proposed rule matches the list for ice machines with more than 500 grams of refrigerant in the proposed federal technology transitions rule, for:

- Refrigeration:
  - Automatic commercial ice machines (remote condensing units), effective 2025.
  - Automatic commercial ice machines (stand alone units), effective 2025.

2.3.1.2 Setting maximum GWP thresholds for new refrigeration equipment: Baseline: Ecology's existing HFC rule does not contain GWP thresholds. The 2021 law established specific GWP thresholds and effective dates for new equipment used in ice rinks. In particular, the 2021 law set the following GWP thresholds for new equipment manufactured after December 31, 2023:

- 150 GWP threshold for new equipment installed in new ice rinks; and
- 750 GWP threshold for new equipment installed in existing ice rinks.

The proposed EPA technology transitions rule would establish GWP thresholds and prohibitions for a set of end uses of new refrigeration equipment effective in 2025. In particular, the proposed EPA Technology Transition rule would set the following GWP thresholds:

- 300 GWP threshold for new refrigeration equipment with less than 200 lbs. charge capacity;
- 150 GWP threshold for new refrigeration equipment with more than 200 lbs. charge capacity; and
- 700 GWP threshold for chillers used for industrial process refrigeration.

Proposed: The proposed rule amendments would add GWP thresholds for substances consistent with the proposed EPA technology transitions rule, except:

- Our proposed rule would set a 150 GWP threshold for all new refrigeration equipment with charge capacities exceeding 50 lbs.
- Our proposed rule would set a 750 GWP threshold for chillers used for industrial process refrigeration.

Our proposed rule would also incorporate the GWP thresholds and effective dates for ice rinks from the state law.

2.3.1.3 Setting maximum GWP thresholds for new air conditioning equipment: Baseline: RCW 70A.60.020, which was added by the 2021 law, authorizes but does not require ecology to set a 750 GWP threshold for substances used in new stationary air conditioning (excluding chillers) and sets the earliest dates such prohibitions could begin.

The state building code council (council) did not adopt all four safety standards specified in RCW 70A.60.020 (2)(b)(i) by January 1, 2023. The council is expected to complete the required adoption by November 2025. Accordingly, January 1, 2028, is the earliest possible effective date for all stationary air conditioning equipment other than dehumidifiers, room air conditions, and systems with variable refrigerant flow or volume.

The proposed EPA technology transitions rule would set a GWP limit of 700 for:

- Air conditioning except variable refrigerant flow systems, beginning in 2025.

- Variable refrigerant flow systems, beginning in 2026.

Proposed: The proposed rule would set a 750 GWP threshold for substances used in new air conditioning equipment as follows:

- Room air conditioners and residential dehumidifiers, effective 2024. This is one year later than the earliest possible effective date for this type of equipment.

- Variable refrigerant flow or volume systems, effective 2026. This is the earliest possible effective date for this type of equipment.

- Other types of air conditioning equipment used in residential and nonresidential applications, effective 2028. This is based on our understanding that the state building code council will adopt the four specified safety standards no later than January 1, 2026.

2.3.1.4 Setting maximum GWP thresholds for small containers and nonessential consumer products: Baseline: RCW 70A.60.080, which was amended by the 2021 law, prohibits the use of substances with greater than 150 GWP in small containers of refrigerant and nonessential consumer products. These statutory prohibitions went into effect on July 25, 2021.

Proposed: The proposed rule amendments would incorporate the new statutory prohibitions without change.

2.3.1.5 Establishing exemptions: Baseline: The 2021 law established acceptable uses (exemptions) for specified substances for certain end use categories.

For refrigeration equipment, the 2021 law also exempts:

- Equipment with 50 lbs. or less of refrigerant.
- Replacement of components in existing facilities as part of normal maintenance.
- Facilities with new equipment with a building permit issued before the effective date of the amended rule.

Under the 2021 law, stationary air conditioning equipment is also exempt for facilities with new equipment with a building permit issued before the effective date.

Proposed: The proposed rule amendments would establish new exemptions consistent with additional prohibitions being proposed (see previous sections). These exemptions include certain applications of centrifugal chillers and positive displacement chillers:

- Using HFC-134a for some military marine vessels.
- Using HFC-134a and R-404A for some human-related spacecraft and support equipment).

Our proposed rule would also incorporate the other statutory exemptions described above.

2.3.1.6 Amending and adding labeling requirements: Baseline: Under the 2019 and 2021 laws, manufacturers of products and equipment using substances that are listed under the existing rule (see previous sections in 2.3.1) must meet labeling requirements, unless their products are exempt.

RCW 70A.60.060 (4)(c), added by the 2021 law, requires ecology to allow for alternative disclosure methods if ecology determines that compliance with the applicable labeling requirement is not feasible for a particular product or equipment.

RCW 70A.60.020(5), added by the 2021 law, authorized ecology to establish labeling requirements for new stationary air conditioning and refrigeration equipment that is subject to our proposed GWP thresholds.

Proposed: The proposed amendments would also implement the statutory directive to allow for alternative disclosure methods by specify-

ing the required contents and process for requesting approval to use alternative disclosure methods.

The proposed rule amendments would also establish new, separate labeling and disclosure requirements, consistent with the proposed EPA rule, for the following equipment subject to our proposed GWP thresholds:

- New refrigeration equipment.
- New air conditioning equipment.

2.3.1.7 Adding recordkeeping requirements: Baseline: RCW 70A.60.060 requires ecology to establish reporting and recordkeeping requirements. The existing rule includes reporting and recordkeeping requirements for manufacturers of products containing substances that are restricted under the baseline.

The proposed EPA technology transition rule includes reporting requirements and three-year recordkeeping requirements for covered products.

Proposed: The proposed rule amendments would specify that existing reporting requirements would apply to products and equipment using substances that are restricted under amended requirements.

The proposed rule amendments would also establish new, separate recordkeeping requirements, consistent with the proposed EPA rule, for new stationary air conditioning and refrigeration equipment that [is] subject to our proposed GWP thresholds.

The proposed rule would require an additional two years of records retention (five-year retention of records compared to the three years required in the proposed EPA rule).

2.3.1.8 Establishing a variance process and criteria: Baseline: RCW 70A.60.020 (5)(c), added by the 2021 law, gives ecology the authority to grant variances from the proposed GWP thresholds and associated requirements for new stationary air conditioning and refrigeration equipment.

Proposed: The proposed rule amendments would establish three types of variances, with associated eligibility criteria, for which manufacturers can apply by demonstrating that issuance of the requested variance would not increase overall risk to human health or the environment.

2.3.2 Proposed amendments to requirements for facilities: 2.3.2.1 Establishing refrigerant management program (RMP) registration requirements: Baseline: RCW 70A.60.030, added by the 2021 law, directs ecology to adopt rules to implement a refrigerant management program (RMP) applicable to stationary refrigeration and air conditioning systems using high-GWP refrigerants and with a volume of 50 lbs. or more, and installation and servicing of these systems.

RCW 70A.60.030(3) establishes annual registration requirements that apply to the owner or operator of a stationary refrigeration or air conditioning system with a charge capacity of 50 lbs. or more.

Under RCW 70A.60.030(7), ecology must adopt rules requiring the following entities to provide an annual report to ecology:

- Facilities with refrigeration or air conditioning system with a full charge of at least 50 lbs. of high-GWP refrigerant.
- Any person who wholesales, distributes, or reclaims any amount of high-GWP refrigerant.

Under RCW 70A.60.030(8), ecology is also authorized to adopt rules establishing service practices for stationary appliances, which may include reporting requirements for technicians.

The statute also allows ecology to phase in RMP requirements over time based on the relative full charge of refrigeration or air conditioning systems.

Proposed: The proposed rule amendments would incorporate the annual RMP registration requirement from the 2021 law. The proposed rule would also establish reporting requirements.

The proposed rule would phase in a requirement to register and provide information to ecology.

Wholesalers, distributors, and reclaimers of any amount of high-GWP refrigerant would also be required to register with ecology and provide detailed information about the facility with which they interact (including facility information, ownership, operation, and industry).

2.3.2.2 Setting implementation fees and annual fees: Baseline: RCW 70A.60.030(9), added by the 2021 law, gives ecology authority to charge fees to cover the costs of implementing the RMP. Fees must be based on the direct and indirect costs of administering and enforcing the RMP.

The statute also allows ecology to phase in RMP requirements over time based on the relative full charge of refrigeration or air conditioning systems.

Proposed: The proposed rule amendments would set an initial implementation fee of \$150 for facilities with refrigeration or air conditioning systems with a full charge of at least 1,500 lbs. of high-GWP refrigerant.

The proposed rule amendments would also set an annual implementation fee for facilities with refrigeration or air conditioning systems with full charge of at least 200 lbs. of high-GWP refrigerant as follows:

- Beginning in 2024: \$370 for facilities whose equipment has a full charge of at least 1,500 lbs.
- Beginning in 2026: \$170 for facilities whose equipment has a full charge of between 200 and 1,499 lbs.

Ongoing fees (beginning in 2025 and 2027, respectively) would be established using a process consistent with the updating process for other air quality fees. This would be specified in a new section of the air quality fee rule, in WAC 173-455-160 (see discussion in Section 2.3.7).

2.3.2.3 Requiring leak inspection and monitoring: Baseline: RCW 70A.60.030, added by the 2021 law, directs ecology to establish requirements for leak detection and monitoring as part of the RMP. At a minimum, RCW 70A.60.030(6) requires the owner or operator of a registered stationary air conditioning or refrigeration system to inspect for leaks each time significant amounts of refrigerant are added to the system.

RCW 70A.60.030(5) authorizes ecology to scale the requirements for periodic leak-detection inspections based on the relative full charge of the refrigeration or air conditioning systems. RCW 70A.60.030(5) also authorizes ecology to exempt systems that use low-GWP substances or that have automatic leak-detection systems from the requirements for periodic inspections.

Proposed: The proposed rule amendments would set leak inspection requirements for facilities with year-round refrigeration and air conditioning systems with a full charge capacity of at least 1,500 lbs., beginning in 2024.



The rule amendments would also set requirements for automatic leak detection for year-round refrigeration systems with a full charge capacity of at least 1,500 lbs., beginning in 2025.

For facilities with refrigeration or air conditioning systems with full charge between over 200 and 1,500 lbs., beginning in 2024 the proposed rule amendments would require inspections.

For facilities with refrigeration or air conditioning systems with full charge between 50 and 200 lbs., beginning in 2024 the proposed rule amendments would require less frequent inspections.

2.3.2.4 Setting leak rate thresholds and establishing notification requirements: Baseline: The EPA has existing leak-related requirements and leak rate thresholds for any person maintaining, servicing, or repairing appliances containing class I, class II, or non-exempt substitute refrigerants, for the following uses, under Section 608 of the Clean Air Act:

- Industrial process refrigeration.
- Commercial refrigeration.
- Comfort cooling.
- Other covered appliances.

RCW 70A.60.030 (7)(f), added by the 2021 law, requires ecology to establish leak rate thresholds that achieve greater emissions reductions than the federal rules adopted by EPA.

Proposed: The proposed rule amendments would set thresholds for leak rates and associated notification requirements.

2.3.2.5 Establishing requirements for leak repair, timing, and verification: Baseline: The EPA has existing leak-related requirements and leak rate thresholds, as listed above.

EPA requirements include timing requirements for corrective action if the applicable EPA leak rate thresholds ("triggers") are exceeded.

RCW 70A.60.030 (7)(a), added by the 2021 law, requires ecology to adopt rules that require leaking systems to be repaired within a specified amount of time.

Proposed: The proposed rule amendments would establish timing and other requirements for leak repair, beginning in 2024.

The proposed amendments would require verification tests upon completion of leak repairs, as well as follow-up verification tests within 14 days of reaching normal operating conditions for a system that requires evacuation to conduct a repair.

2.3.2.6 Establishing requirements for retrofit and retirement plans: Baseline: The EPA has existing leak-related requirements and leak rate thresholds, as above.

These leak-related EPA requirements include development of a retrofit or retirement plan within 30 days of detecting a leak in excess of leak thresholds.

Proposed: The proposed rule amendments would require facilities with refrigeration or air conditioning systems with full charge of at least 50 lbs. of high-GWP refrigerant, with leaks that are not capable of [being] repaired within the applicable time frames and are not exempt, to prepare and implement a retrofit or retirement plan.

2.3.2.7 Establishing exemption criteria and process for leak repair, retrofit, and replacement: Baseline: RCW 70A.60.030 (8)(b), added by the 2021 law, authorizes ecology to establish a process for wholesalers, distributors, reclaimers, and equipment operators to apply for an exemption from rule requirements related to leak repair and retrofit or replacement. The statute authorizes ecology to grant such

exemptions on the basis of economic hardship, natural disaster, or based on a calculation of the impact on lifecycle GHG emissions.

Proposed: The proposed rule amendments would add three types of exemptions, with associated eligibility criteria, for which facilities can apply by demonstrating that approval of the requested exemption would not increase overall risk to human health or the environment.

Applicants would also need to demonstrate they made a good faith effort to anticipate, address, and mitigate potential noncompliance.

The proposed rule would establish the application process for an exemption.

2.3.2.8 Establishing reporting requirements: Baseline: RCW 70A.60.030(7), added by the 2021 law, directs ecology to establish annual reporting requirements for facilities.

The statute also directs ecology to require refrigerant wholesalers, distributors, and reclaimers to report annually.

Under RCW 70A.60.030(8), ecology is also authorized to adopt rules establishing service practices for stationary appliances, which may include reporting requirements for technicians.

Proposed: The proposed rule amendments would specify the timing and required contents of annual reports.

The proposed rule amendments would also require refrigerant wholesalers, distributors, and reclaimers to report annually for the previous calendar year, beginning in 2025 for 2024.

2.3.2.9 Establishing recordkeeping requirements: Baseline: The EPA has existing requirements for class I, class II, or nonexempt substitute refrigerants, as above.

EPA requirements include recordkeeping requirements for three years.

RCW 70A.60.030 (7)(e), added by the 2021 law, directs ecology to adopt recordkeeping requirements for facility operators as well as refrigerant wholesalers, distributors, and reclaimers.

Proposed: The proposed rule would require recordkeeping beginning in 2024. Facilities with refrigeration or air conditioning systems with full charge of at least 50 lbs. of high-GWP refrigerant would be required to maintain records on site for at least five years.

The proposed rule would also require refrigerant wholesalers, distributors, and reclaimers to maintain records on site for at least five years.

2.3.4 Proposed amendments to requirements for service technicians: 2.3.4.1 Establishing required service practices: Baseline: RCW 70A.60.030 (8)(a), added by the 2021 law, authorizes ecology to adopt rules establishing required service practices for stationary appliances. The rules may include requirements for service technician certification and prohibitions on practices that are likely to result in releases to the environment.

Service practices are required by the EPA under their phaseout of ozone-depleting substances (ODS) program, for class I and class II controlled substances.

Proposed: The proposed rule amendments would require the same service practices for HFCs as are required under the baseline for other refrigerants that are also ODS. The proposed rule amendments would also require that additional refrigerant charge may not be added to equipment known to have a leak unless the charge is needed to maintain operations while preparing for or conducting repairs.

2.3.6 Making corresponding changes to the air quality fee rule: The proposed rule amendments would add a new section to chapter 173-455 WAC to establish the proposed RMP implementation fees author-

ized by the 2021 law. This [These] proposed rule amendments would facilitate annual updating of the RMP implementation fees.

**COSTS OF COMPLIANCE: EQUIPMENT, SUPPLIES, LABOR, PROFESSIONAL SERVICES, ADMINISTRATIVE COSTS, AND OTHER COSTS:**

Summary	PV Cost (low, fewer businesses)	PV Cost (high, fewer businesses)	PV Cost (low, larger business count)	PV Cost (high, larger business count)
Adding Prohibitions	\$79,558	\$385,211	\$79,558	\$385,211
Refrigeration GWP thresholds	(\$25,812,527)	\$292,536,326	(\$62,836,435)	\$123,645,506
AC GWP thresholds	\$11,104,972	\$11,104,972	\$11,104,972	\$11,104,972
RMP registration	\$375,585	\$375,585	\$1,713,345	\$1,713,345
Fees	\$7,443,265	\$7,443,265	\$78,627,164	\$78,627,164
Leak detection	\$40,239,706	\$47,078,609	\$329,633,817	\$363,986,224
Leak rate thresholds	\$2,072,923	\$2,072,923	\$16,691,009	\$16,691,009
Repair timing	Qualitative	Qualitative	Qualitative	Qualitative
Retrofit requirements	Qualitative	Qualitative	Qualitative	Qualitative
Reporting	\$8,472,992	\$8,472,992	\$87,176,863	\$87,176,863
<b>TOTAL</b>	<b>\$43,976,472</b>	<b>\$369,469,882</b>	<b>\$462,190,293</b>	<b>\$683,330,294</b>

**COMPARISON OF COMPLIANCE COST FOR SMALL VERSUS LARGE BUSINESSES:**

Type of Cost	Small Business Low	Small Business High	Large Business Low	Large Business High
Amending prohibitions on the use of certain substances in specified new products and equipment	\$52.22	\$210.71	\$0.02	\$0.09
Setting GWP thresholds for prohibited substances used in new refrigeration equipment with a refrigerant charge capacity of more than 50 lbs	\$5,414.69	\$5,745.28	\$2.25	\$2.38
Setting GWP thresholds for prohibited substances used in new air conditioning equipment	N/A	N/A	N/A	N/A
Establishing refrigerant management program (RMP) registration requirements	\$2.62	\$2.62	\$0.00	\$0.00
Setting implementation fees and annual fees	\$59.09	\$59.09	\$0.02	\$0.02
Requiring leak detection and monitoring	\$68.05	\$141.49	\$0.03	\$0.06
Setting leak rate thresholds and establishing notification requirements	\$4.56	\$4.56	\$0.00	\$0.00
Establishing requirements for leak repair, timing, and verification	N/A	N/A	N/A	N/A
Establishing requirements for retrofit and retirement plans	N/A	N/A	N/A	N/A
Establishing reporting requirements	\$13.05	\$13.05	\$0.01	\$0.01
<b>TOTAL</b>	<b>\$5,614.28</b>	<b>\$6,176.80</b>	<b>\$2.33</b>	<b>\$2.56</b>

**MITIGATION OF DISPROPORTIONATE IMPACT: Ecology considered:**

- (a) Reducing, modifying, or eliminating substantive regulatory requirements;
- (b) Simplifying, reducing, or eliminating recordkeeping and reporting requirements;
- (c) Reducing the frequency of inspections;
- (d) Delaying compliance timetables;
- (e) Reducing or modifying fine schedules for noncompliance; or
- (f) Any other mitigation techniques including those suggested by small businesses or small business advocates.

We considered all of the above options, the goals and objectives of the authorizing statutes and included the following:

- Businesses that have refrigeration equipment with a refrigerant charge capacity of less than 50 lbs. are not required to comply with the requirements of the rule.
- Exemptions from requirements of the rule may be granted if an exemption will not increase the overall risk to human health and the environment and the facility is a retail food facility or a small business, compliance with the requirements would result in extreme financial hardship, and the applicant has made a good faith effort to mitigate any potential noncompliance.

**SMALL BUSINESS AND LOCAL GOVERNMENT CONSULTATION:**

- Met with Washington Food Industry Association and Air Conditioning Contractors Association representatives in June 2021.
- Presented a rule-making overview at North American Sustainable Refrigeration Council conference in September 2021 (including a session focused on impacts to small businesses) and September 2022.
- Held seven open stakeholder meetings in 2022 and 2023.
- Met with the Washington chapter of the United Association of the Plumbers and Pipefitters Industry.
- Held a webinar on the legislative leak report to review ecology methods for setting leak thresholds in the RMP.
- Met with the Washington Air Conditioning Contractors Association in December 2022.

**NAICS CODES OF INDUSTRIES IMPACTED BY THE PROPOSED RULE:** NAICS definitions and industry hierarchies are discussed at <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?chart=2017>.

NAICS Code	Description
115x	Support Activities for Agriculture and Forestry
221x	Utilities
311x	Food Manufacturing
312x	Beverage and Tobacco Product Manufacturing
313x	Textile Mills
323x	Printing and Related Support Activities
324x	Petroleum and Coal Products Manufacturing
325x	Chemical Manufacturing
326x	Plastics and Rubber Products Manufacturing
327x	Nonmetallic Mineral Product Manufacturing
332x	Fabricated Metal Product Manufacturing
334x	Computer and Electronic Product Manufacturing
335x	Electrical Equipment, Appliance, and Component Manufacturing
336x	Transportation Equipment Manufacturing
339x	Miscellaneous Manufacturing
423x	Merchant Wholesalers, Durable Goods
424x	Merchant Wholesalers, Nondurable Goods
425x	Wholesale Trade Agents and Brokers
441x	Motor Vehicle and Parts Dealers
444x	Building Material and Garden Equipment and Supplies Dealers
445x	Food and Beverage Retailers
488x	Support Activities for Transportation
493x	Warehousing and Storage

NAICS Code	Description
512x	Motion Picture and Sound Recording Industries
518x	Computing Infrastructure Providers, Data Processing, Web Hosting, and Related Services
522x	Credit Intermediation and Related Activities
524x	Insurance Carriers and Related Activities
531x	Real Estate
532x	Rental and Leasing Services
541x	Professional, Scientific, and Technical Services
551x	Management of Companies and Enterprises
561x	Administrative and Support Services
611x	Educational Services
621x	Ambulatory Health Care Services
622x	Hospitals
623x	Nursing and Residential Care Facilities
711x	Performing Arts, Spectator Sports, and Related Industries
712x	Museums, Historical Sites, and Similar Institutions
713x	Amusement, Gambling, and Recreation Industries
721x	Accommodation
722x	Food Services and Drinking Places
811x	Repair and Maintenance
812x	Personal and Laundry Services
813x	Religious, Grantmaking, Civic, Professional, and Similar Organizations

The "x" in the four-digit NAICS codes listed in the table represent subcategories within NAICS codes that described.

**CONSIDERATION OF LOST SALES OR REVENUE, IMPACT ON JOBS:** Low-Cost modeled impacts to output accounting for social cost of carbon (millions of \$):

Cost Impact	2025	2033	2043
Dun & Bradstreet	-\$619	-\$7	-\$6
Data Axle	-\$505	-\$120	-\$79

High-Cost modeled impacts to output accounting for social cost of carbon (millions of \$):

Cost Impact	2025	2033	2043
Dun & Bradstreet	-\$595	\$44	\$66
Data Axle	-\$554	-\$181	-\$122

Low-cost impacts on jobs (Dun & Bradstreet):

Industry	2025 Jobs Impact	2043 Jobs Impact
Whole state	-3219	-16
Retail trade	-586	-3
Construction	-584	5
Food services and drinking places	-153	-1
Real estate	-149	-1
Individual and family services	-49	-1

Low-cost impacts on jobs (Data Axle):

Industry	2025 Jobs Impact	2043 Jobs Impact
Whole state	-2642	-286

Industry	2025 Jobs Impact	2043 Jobs Impact
Construction	-500	1
Retail trade	-360	-26
State and Local Government	-150	-32
Food services and drinking places	-131	-17
Real estate	-118	-13

A copy of the statement may be obtained by contacting Linda Kildahl, Department of Ecology, P.O. Box 47600, Olympia, WA 98504-7600, phone 360-706-3038, Washington relay service or TTY call [711 or] 877-833-6341, email [lindal.kildahl@ecy.wa.gov](mailto:lindal.kildahl@ecy.wa.gov) [[linda.kildahl@ecy.wa.gov](mailto:linda.kildahl@ecy.wa.gov)].

July 13, 2023  
Heather R. Bartlett  
Deputy Director

OTS-4615.4

**Chapter 173-443 WAC**  
**HYDROFLUOROCARBONS (HFCs) AND OTHER FLUORINATED GREENHOUSE GASES**

AMENDATORY SECTION (Amending WSR 21-01-085, filed 12/10/20, effective 1/10/21)

**WAC 173-443-010 Policy and purpose.** (1) Ecology's policy under chapters ((70A.15)) 70A.60 and 43.21A RCW is to provide for the systematic control of air pollution from air contaminant sources. Ecology's policy under chapter ((70A.45)) 70A.60 RCW is to reduce the emissions of hydrofluorocarbons (HFCs) and other fluorinated greenhouse gases.

(2) This chapter establishes requirements for the transition to less damaging ((HFCs or suitable)) refrigerants and refrigerant substitutes in the air conditioning and refrigeration, aerosol propellant, and foam end-use categories in Washington in a manner similar to rules adopted under EPA's Significant New Alternative Policy (SNAP) program and refrigerant management and HFC rules adopted ((or proposed for adoption)) by other states around the country ((RCW 70A.45.080)).

[Statutory Authority: Chapters 70A.45 and 70A.15 RCW. WSR 21-01-085 (Order 19-04), § 173-443-010, filed 12/10/20, effective 1/10/21.]

AMENDATORY SECTION (Amending WSR 21-01-085, filed 12/10/20, effective 1/10/21)

**WAC 173-443-020 Applicability.** (~~((+1))~~) The requirements of this chapter apply to ~~((any))~~:

(1) Person who offers for sale, leases, rents, installs, or otherwise causes to enter into Washington commerce any new product or equipment that contains ~~((7))~~ or uses ~~((, or will use HFCs or other substitutes for an end-use))~~ a prohibited substance listed in WAC 173-443-040, Table 1;

(2) A person who offers for sale, leases, rents, installs, or otherwise causes to enter into Washington commerce any new refrigeration or air conditioning system that contains or uses a prohibited substance listed in WAC 173-443-040, Tables 2 and 3, respectively;

(3) A person who sells, offers for sale, or purchases a small container of refrigerant or a nonessential consumer product that contains or uses a prohibited substance listed in WAC 173-443-040, Table 4;

(4) A person who owns or operates a facility that has a refrigeration or air conditioning system;

(5) A person who installs, repairs, maintains, services, replaces, or disposes of a refrigeration or air conditioning system; and

(6) A person who wholesales, distributes, or reclaims a refrigerant with a high global warming potential (GWP).

~~((2) Labeling requirements.~~

~~(a) The labeling requirements in WAC 173-443-070 apply to manufacturers of products or equipment that contains, uses, or will use HFCs as of July 28, 2019, or to manufacturers that introduce such products or equipment into Washington commerce after that date.~~

~~(b) A manufacturer may apply the applicability determination in (a) of this subsection to separate divisions or similar segments of its business based on the end-use that products associated with each division or similar segmentation are intended to serve.)~~

[Statutory Authority: Chapters 70A.45 and 70A.15 RCW. WSR 21-01-085 (Order 19-04), § 173-443-020, filed 12/10/20, effective 1/10/21.]

AMENDATORY SECTION (Amending WSR 21-01-085, filed 12/10/20, effective 1/10/21)

**WAC 173-443-030 Definitions and acronyms.** 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.

"Air conditioning" means the process of treating air to meet the requirements of a conditioning space by controlling its temperature, humidity, cleanliness, or distribution. "Air conditioning" includes the use of chillers, except for purposes of applying a maximum GWP threshold for new air conditioning equipment under WAC 173-443-040, and the use of heat pumps.

"Air conditioning equipment" or "air conditioning system" means the piece(s) of stationary equipment used to provide air conditioning.

"Air conditioning equipment" or "air conditioning system" includes, but is not limited to, room air conditioners and residential and other dehumidifiers; ducted central air conditioners and heat pumps; nonducted air conditioners (both mini and multisplit); packaged roof top units; water source and ground source heat pumps; and remote condensing units used for comfort cooling. "Air conditioning equipment" or "air conditioning system" does not include mobile air conditioning systems, including those used in motor vehicles, rail and trains, aircraft, watercraft, recreational vehicles, recreational trailers, and campers.

"Applicant" means:

(a) Any person who offers to sell, leases, rents, installs, uses, or otherwise causes to enter into Washington commerce any new refrigeration or air conditioning equipment that contains or uses a prohibited substance listed in WAC 173-443-040 (2) or (3) and who applies for a variance under WAC 173-443-095; or

(b) Any person who owns or operates a facility that has a refrigeration or air conditioning system that is subject to the refrigerant management program and who applies for an exemption under WAC 173-443-235.

"Automatic leak detection system" means a calibrated device using continuous monitoring for the purpose of detecting leakage of refrigerants that alerts the operator upon detection of a leak, and may be either:

(a) A direct system that automatically interprets the presence in air of refrigerant leaked from a refrigeration system;

(b) A direct system that automatically interprets measurements (e.g., temperature or pressure) within a refrigeration system that indicates a refrigerant leak in refrigerated cases and other locations in the system.

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

"C" means ((Centigrade)) Celsius.

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

"Capital cost" means an expense incurred in the production of goods or in rendering services including, but not limited to, the cost of engineering, purchase and installation of components or systems and instrumentation, and contractor and construction fees.

"Certified reclaimer" means a person who is a certified reclaimer in accordance with 40 C.F.R. § 82.164.

"Certified refrigerant recovery or recycling equipment" has the same meaning as set forth in 40 C.F.R. § 82.152.

"Certified technician" means a person who holds a current, valid, and applicable certificate in accordance with 40 C.F.R. § 82.40 or 82.161.

"Change in ownership" means the transfer of a legal ownership interest in a facility with a refrigeration or air conditioning system that is subject to this chapter.

"Chiller" means a water or heat transfer fluid chilling equipment package custom built in place or a factory-made and prefabricated assembly of one or more compressors, condensers and evaporators, with



interconnections and accessories including controls, designed for the purpose of cooling or heating water or a heat transfer fluid. A chiller is a machine specifically designed to make use of a vapor compression cycle or absorption refrigeration cycle to transfer heat from a cold water or heat transfer fluid circulating system to the air, a heat transfer fluid, or other heat exchange media. Chillers can be water-cooled, air-cooled, or evaporatively cooled. Chillers include, but are not limited to, rotary chillers, centrifugal chillers, and positive displacement chillers, including reciprocating, scroll, and screw chillers. A chiller used for air conditioning purposes is considered air conditioning equipment except for purposes of applying a GWP threshold under WAC 173-443-040, Table 2. A chiller used for refrigeration in a retail food facility is considered an indirect type of "supermarket system." A chiller used for industrial process refrigeration is considered a type of "other refrigeration" application.

"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 equipment" 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.)~~

"Comfort cooling" means the air conditioning equipment used to provide cooling in order to control heat and/or humidity in occupied facilities including, but not limited to, residential, office, and commercial buildings. Comfort cooling equipment includes, but is not limited to, chillers, commercial split systems, and packaged roof-top units.

"Commercial ice machine" means a nonresidential ice machine or ice maker used in a commercial establishment to produce ice artificially for consumer use including, but not limited to, a hotel, restaurant, or convenience store.

"Component" means a part of a refrigeration or air conditioning system including, but not limited to, condensing units, compressors, 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.

"Consumer" means the ultimate purchaser, recipient, or end-user of a product.

"Cumulative replacement" means the addition of or change in multiple components over time.

"Date of manufacture" means:

(a) For air conditioning and refrigeration equipment, the date displayed on the manufacturer's equipment label indicating the equipment's date of manufacture;

(b) For refrigeration and air conditioning equipment built up and completed on-site (field erected), the date that the refrigerant circuit was completed and initially filled with refrigerant; or

(c) For foam products imported into the state from outside the United States, the date the foam was originally manufactured, or the date of import if the original manufacture date is not known.

"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))~~ substances associated with that product.

"EPA" means the U.S. Environmental Protection Agency.

"Ecology" means the department of ecology.

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

"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.

~~((("Existing product label" means a label adhered or attached to a product, such as a nameplate or sticker, or to the box or packaging enclosing the product that discloses the substitute contained, used, or to be used in the product.))~~

"F" means Fahrenheit.

"Facility" means any property, plant, building structure, stationary source, stationary equipment or grouping of stationary equipment or stationary sources located on one or more contiguous or adjacent properties in actual physical contact or separated solely by a public roadway or other public right of way, and under common operational control, that includes one or more refrigeration systems subject to this chapter. Operators of military installations may classify such installations as more than a single facility based on distinct and independent functional groupings within contiguous military properties.

"Facility identification number" means a unique identification number provided by ecology for each facility with one or more refrigeration system(s) in operation pursuant to WAC 173-443-115.

"Flexible polyurethane" means a nonrigid polyurethane foam including, but not limited to, that used in furniture, bedding, and chair cushions.

"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 substance that functions as a source of gas to generate bubbles or cells in the mixture during the formation of foam.

"Foam system" means a multipart liquid product that expands when mixed to form a foam.

~~((("HFC" means hydrofluorocarbon as the term is defined in RCW 70A.45.010.))~~

"Follow-up verification test" means a test conducted after an initial verification test and after the system has returned to normal operating characteristics and conditions in order to confirm that the repair was successful.

"Force majeure" means a sudden and unforeseeable event involving a clear danger, demanding action to prevent or mitigate the loss of, or damage to, life, health, property, or essential public services, arising from causes beyond the control of the applicant, which delays or prevents the performance of any obligation under this chapter, despite the applicant's best efforts to fulfill the obligation. This includes events where the local government, state, or federal government issues a declaration of emergency, which can include war, natural disasters, or pandemics. This does not include financial inability to comply if the financial hardship is caused by an event that is unrela-

ted to the force majeure event or would otherwise exist in the absence of the force majeure event.

"Full charge," "optimal charge," or "critical charge" means the amount of refrigerant required in the refrigerant circuit for normal operating characteristics and conditions of a refrigeration system or refrigeration equipment, as determined by using one or a combination of the following four methods:

(a) Use of the equipment manufacturer's specifications of the full charge;

(b) Use of appropriate calculations based on component sizes, density of refrigerant, volume of piping, seasonal variances, and other relevant considerations;

(c) Use of actual measurements of the amount of refrigerant added to or evacuated from the refrigeration equipment, including for seasonal variances; or

(d) The midpoint of an established range for full charge based on the best available data regarding the normal operating characteristics and conditions for the system.

"Global warming potential," "GWP," "global warming potential value," or "GWP value" means 100-year GWP value as it appears in WAC 173-441-040, and if not contained in WAC 173-441-040, then the GWP value means the 100-year GWP value published by the Intergovernmental Panel on Climate Change (IPCC) in its Fifth Assessment Working Group 1 Report (AR5) (IPCC, 2013).

"Heat transfer fluid" means any gas or liquid used for the purpose of transmitting heat from one place to another.

"HFCs" or "hydrofluorocarbons" means a class of greenhouse gases that are saturated organic compounds containing hydrogen, fluorine, and carbon.

"High-GWP refrigerant" means a compound used as a heat transfer fluid or gas that is:

(a) A chlorofluorocarbon, hydrochlorofluorocarbon, hydrofluorocarbon, perfluorocarbon, or any compound or blend of compounds with a GWP value equal to or greater than 150; or

(b) A regulated refrigerant as defined in this section.

"Household refrigerators and freezers" means refrigerators, refrigerator-freezers, freezers, and miscellaneous household refrigeration ((appliances)) equipment 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 - Built-in" means any refrigerator, refrigerator-freezer or freezer intended for residential use with 7.75 cubic feet or greater total volume and twenty-four 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.

"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).

"Ice rink" means a frozen body of water, hardened chemicals, or both including, but not limited to, professional ice-skating rinks and

those used by the general public for recreational purposes (RCW 70A.60.010).

"Industrial process refrigeration" means to cool or heat process streams at a specific location in manufacturing and other forms of industrial processes and applications such as chemical production, pharmaceutical, and petrochemical industries. This also includes appliances used in the generation of electricity and for large scale cooling of heat sources such as data centers and data servers. Industrial process refrigeration not using a chiller is considered a type of refrigeration equipment. Industrial process refrigeration using a chiller is considered a type of other refrigeration application. Where one piece of refrigeration equipment is used for both industrial process refrigeration and other applications, it will be considered industrial process refrigeration if 50 percent or more of its operating capacity is used for industrial process refrigeration.

"Integral skin polyurethane" means a self-skinning polyurethane foam including, but not limited to, that used in car steering wheels and dashboards.

"Leak rate calculation" means the rate at which a refrigeration or air conditioning system is losing refrigerant, measured between refrigerant charges or inspections. The leak rate is expressed in terms of the average percentage of the system's full charge lost on a monthly basis over the previous 12 months. The leak rate must be calculated using the 12-month rolling average method as follows:

- (a) Step 1. Take the sum of the pounds of refrigerant added to the system over the previous 365-day period;
- (b) Step 2. Divide the result of step 1 by the pounds of refrigerant the system normally contains at a full charge; and
- (c) Step 3. Multiply the result of step 2 by 100 to obtain a percentage.

"Low temperature refrigeration system" means a commercial or industrial process refrigeration system that maintains food, beverages, or other items at temperatures at or below 32°F (0°C).

"MDI" means metered dose inhaler or medical dose inhaler.

"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 ((70A.45.010) 70A.60.010).

(("New" means:

- ~~(a) Products or equipment that are manufactured after the effective date of this chapter;~~
- ~~(b) Products or equipment first installed for an intended purpose with new or used components;~~
- ~~(c) Products or equipment expanded by the addition of components to increase system capacity after the effective date of this chapter; or~~
- ~~(d) Products or equipment replaced or cumulatively replaced such that the cumulative capital cost after the effective date of this chapter of replacement exceeds fifty percent of the capital cost of replacing the whole system.))~~

"Mothballing" or "system mothballing" means the intentional shutting down of a refrigeration or air conditioning system for longer than 60 days by the owner or operator of the facility, where the refrigerant has been evacuated from the system or affected component, at least to atmospheric pressure.

"New air conditioning equipment" means any air conditioning equipment or system manufactured for an end-use listed in WAC 173-443-040, Table 3, that is first installed using new components, used components, or a combination of new and used components, and that is one of the following:

- (a) New construction in a new facility;
- (b) A system in an existing facility that undergoes a retrofit;
- (c) A system in an existing facility with a single condenser and single evaporator that has a new exterior condenser, condensing unit, or remote condensing unit; or
- (d) A system in an existing facility with more than one condenser or more than one evaporator that is modified such that the system undergoes cumulative replacement of 75 percent or more of its indoor evaporator units (by number) and 100 percent of its air source or water source condensing units.

"New products or equipment" means products or equipment manufactured for an end-use listed in WAC 173-443-040, Table 1, that is one or more of the following:

- (a) Manufactured after the effective date of the prohibition;
- (b) First installed with new or used components, or expanded by the addition of components to increase capacity, after the effective date of the prohibition; or
- (c) Replaced or underwent cumulative replacement after the effective date of the prohibition such that the capital cost of replacement exceeds 50 percent of the capital cost of replacing the whole system, excluding display cases.

"New refrigeration equipment" means any refrigeration equipment or system manufactured for an end-use listed in WAC 173-443-040, Table 2, that is first installed using new components, used components, or a combination of new and used components, and that is one of the following:

- (a) New construction in a new facility;
- (b) A system in an existing facility that undergoes a retrofit;
- (c) An addition or modification that increases the nominal compressor capacity of a system in an existing facility;
- (d) New construction in an existing facility not previously used for cold storage, retail food refrigeration, commercial refrigeration, industrial process refrigeration, or ice rinks; or
- (e) A system in an existing facility used for commercial refrigeration or industrial process refrigeration that is modified such that the system undergoes cumulative replacement of 75 percent or more of its evaporators (by number) and 100 percent of its compressor racks, condensers, and connected evaporator loads.

"Nonessential consumer products" means the following products if they are propelled by, contain, or manufactured with a chlorofluorocarbon, hydrochlorofluorocarbon, or hydrofluorocarbon:

- (a) Any plastic party streamer or noise horn including, but not limited to:
    - (i) String confetti;
    - (ii) Marine safety horns;
    - (iii) Sporting event horns;
    - (iv) Personal safety horns;
    - (v) Wall-mounted alarms used in factories or other work areas;
- and
- (vi) Intruder alarms used in homes or cars.

(b) Any cleaning fluid for electronic and photographic equipment for which there is not a low-GWP propellant approved by EPA for its use. This includes, but is not limited to:

- (i) Liquid packaging;
- (ii) Solvent wipes;
- (iii) Solvent sprays; and
- (iv) Gas sprays.

(c) Any plastic foam product, except any plastic foam product blown with CFC-11, but which contains no other Class I substances and where this product is used to provide thermal protection to external tanks for space vehicles.

"Nonretail foam products" means products consisting entirely of foam created solely to be an input for another product or manufacturing purpose resulting in another type of product.

"Normal operating characteristics and conditions" mean a refrigeration or air conditioning system's operating temperatures, pressures, fluid flows, speeds, and other characteristics, including full charge of the refrigeration or air conditioning system that would be expected for a given process load and ambient condition during operation.

"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.

"Online disclosure" means disclosing the (~~substitute~~) substance(s) contained (~~, used, or to be used in products or equipment~~) or used or the compliance status of the product or equipment by ensuring that the information is available on an internet website that is accessible to the public free of charge.

~~("Owner's manual" means a paper or online instructional book that is available for an end-use product, which provides basic information about the product.)~~

"Operate" means to have operational control of the facility.

"Operator" means the person or entity having operational control of the facility.

"Other air conditioning" or "other air conditioning equipment" means any residential or nonresidential air conditioning equipment or air conditioning system not otherwise defined as a room air conditioner, residential dehumidifier, or variable refrigerant flow (VRF) system.

"Other refrigeration" or "other refrigeration equipment" means any stationary, nonresidential refrigeration equipment that is used for an application other than retail food, cold storage, ice rinks, industrial process refrigeration that does not use a chiller, or air conditioning; or is used for two or more applications including retail food, cold storage, ice rinks, industrial process refrigeration, commercial refrigeration, or air conditioning.

"PSI" means pounds per square inch.

"Packaged terminal air conditioner" or "PTAC" means a wall sleeve and a separate unencased combination of heating and cooling assemblies specified by the builder and intended for mounting through a wall.

"Packaged terminal air conditioner" includes a prime source of refrigeration, separable outdoor louvers, forced ventilation, and heating availability by builder's choice of energy.

"Packaged terminal heat pump" or "PTHP" means a packaged terminal air conditioner that utilizes reverse cycle refrigeration as its prime

heat source and can have supplementary heating availability by builder's choice of energy.

"Person" means an individual, partnership, franchise holder, association, corporation, a state, a city, a county, or any subdivision or instrumentality of the state (RCW ((70A.45.010) 70A.60.010)).

"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, a macromolecule formed by the polymerization of olefin monomer units.

"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.

"Polyurethane" means a polymer formed principally by the reaction of an isocyanate and a polyol.

~~(("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.))~~

"Portable air conditioner" means a portable encased assembly, other than a "packaged terminal air conditioner," "packaged terminal heat pump," or "residential dehumidifier," that delivers cooled, conditioned air to an enclosed space, and is powered by a single-phase electric current. It includes a source of refrigeration and may include additional means for air circulation and heating.

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

"Prohibited substance" means a regulated refrigerant or a substitute that is prohibited from being used by or contained in products or equipment manufactured for end-uses described in WAC 173-443-040, Table 1 through Table 4.

"Refrigerant" or "refrigerant gas" means any substance, including blends and mixtures, which is used for heat transfer purposes and provides a warming or cooling effect.

"Refrigerant blend" means a mixture or combination of two or more single-component refrigerants.

"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" or "refrigeration system" means any stationary device that is designed to contain and use a refrigerant ((gas including, but not limited to, retail or commercial refrigeration equipment, household refrigeration equipment, and cold storage warehouses)). "Refrigeration equipment" or "refrigeration system" includes refrigeration equipment used in retail food, cold storage, in-

dustrial process refrigeration and cooling that does not use a chiller, ice rinks, and other refrigeration applications.

"Remote condensing unit(~~(s)~~)" means (~~(retail)~~) refrigeration equipment or units that have a central condensing portion and may consist of one or more compressors, condensers, and receivers 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.

"Residential dehumidifier" means a residential air conditioning system, other than a room air conditioner, that is a self-contained, electrically operated, portable, and mechanically encased assembly consisting of:

(a) A refrigerated surface (evaporator) that condenses moisture from the atmosphere;

(b) A refrigeration system, including an electric motor;

(c) An air circulating fan; and

(d) A means of collecting and disposing of the condensate.

"Retail foam products" means products consisting entirely of foam that are created for the purpose of selling or otherwise providing that product in a finished state that does not involve any additional manufacturing or refinement.

"Retail food refrigeration" means refrigeration that uses equipment designed to store and display chilled or frozen goods for commercial sale or use including, but not limited to, stand-alone units, refrigerated food processing and dispensing equipment, remote condensing units, and supermarket systems.

"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 (~~(70A.45.010)~~) 70A.60.010).

"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 foam in domestic appliances used for insulation.

"Rigid polyurethane commercial refrigeration and sandwich panels" means polyurethane foam used to provide insulation 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 liquid polyurethane foam system sold as two parts (i.e., A-side and B-side) in nonpressurized containers; and is field or factory applied in situ using high-pressure proportioning pumps at 800 - 1600 psi and an application gun to mix and dispense the chemical components.

"Rigid polyurethane low-pressure two-component spray foam" means a liquid polyurethane foam system sold as two parts (i.e., A-side and B-side) in containers that are pressurized to less than 250 psi during manufacture of the system for application without pumps; and are typically applied in situ relying upon a liquid blowing agent and/or gaseous foam blowing agent that also serves as a propellant.



"Rigid polyurethane marine flotation foam" means buoyancy or flotation polyurethane foam used in boat and ship manufacturing for both structural and flotation purposes.

"Rigid polyurethane one-component foam sealants" means a polyurethane foam generally 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 polyurethane foam formed into slabstock insulation for panels and fabricated shapes for pipes and vessels.

"Room air conditioner" includes window units, wall units, packaged terminal air conditioners (PTACs), packaged terminal heat pumps (PTHPs), and portable air conditioners.

"Small business" means any business entity, including a sole proprietorship, corporation, partnership, or other legal entity, that is owned or operated independently from all other businesses, and that has 50 or fewer employees (RCW 19.85.020).

"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.

"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).

"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.

"Stationary" means the system is:

- (a) Installed in a building, structure, or facility;
- (b) Attached to a foundation, or if not attached, will reside at the same location for more than twelve consecutive months; or
- (c) Located intermittently at the same facility for at least two consecutive years and operates at that facility a total of at least ninety days each year.

"Substitute" means a chemical, product substitute, or alternative manufacturing process, whether existing or new, that is used to perform a function previously performed by a class I substance or class II substance and any substitute subsequently adopted to perform that function including, but not limited to, hydrofluorocarbons. "Substitute" does not include 2-BTP or any compound as applied to its use in aerospace fire extinguishing systems (RCW ((70A.45.010)) 70A.60.010).

"Sufficient disclosure" means providing the name of the (~~substitute~~) substance.

"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.

"System identification number" means a unique identification number for each refrigeration or air conditioning system at a facility.

The system identification number is comprised of the facility identification number followed by a three-digit number starting at 001 and sequentially assigned to each unique refrigeration or air conditioning system.

"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.

"Use" means any utilization of a compound or substance including, but not limited to, utilization in a product in Washington, consumption by the end-user in the state of Washington, or in intermediate applications in the state of Washington, such as formulation or packaging for other subsequent applications.

"Variable refrigerant flow (VRF) system" means an engineered direct expansion (DX) multisplit system incorporating the following: A split system air conditioner or heat pump incorporating a single refrigerant circuit that is a common piping network to two or more indoor evaporators each capable of independent control, or compressor units. "VRF systems" contain a single module outdoor unit or combined module outdoor units with at least one variable capacity compressor that has three or more stages, with air or water as the heat source. This includes "variable refrigerant volume (VRV) systems."

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

"Verification test" means a leak test conducted after a repair is finished to verify that a leak has been repaired.

"Very low temperature refrigeration or cooling" means a refrigeration or cooling system that maintains temperatures below -58°F (-50°C) including, but not limited to, medical and laboratory freezers, specialized industrial process cooling applications, and extreme temperature environmental testing.

[Statutory Authority: Chapters 70A.45 and 70A.15 RCW. WSR 21-01-085 (Order 19-04), § 173-443-030, filed 12/10/20, effective 1/10/21.]

## PART I - PROHIBITIONS ON THE USE OF CERTAIN HYDROFLUOROCARBONS

AMENDATORY SECTION (Amending WSR 21-01-085, filed 12/10/20, effective 1/10/21)

### **WAC 173-443-040 List of prohibited ((substitutes)) substances.**

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

~~(2) Prohibitions for the aerosol propellants end-use category)) substances in new products and equipment, as defined in WAC 173-443-030, and the effective date of the prohibition, unless an exemption is provided for in WAC 173-443-050.~~

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

~~(3) Prohibitions for the air conditioning end-use category.~~

<b>End-Use Category: Air Conditioning</b>		
<b>End-Use</b>	<b>Prohibited Substitutes</b>	<b>Effective Date</b>
Centrifugal chillers (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 (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

~~(4) Prohibitions for the refrigeration end-use category.~~

<b>End-Use Category: Refrigeration</b>		
<b>End-Use</b>	<b>Prohibited Substitutes</b>	<b>Effective Date</b>
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
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, R-428A, 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

<b>End-Use Category: Refrigeration</b>		
<b>End-Use</b>	<b>Prohibited Substitutes</b>	<b>Effective Date</b>
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
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

~~(5) Prohibitions for the foams end-use category.~~

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

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

**TABLE 1. Prohibited Substances for New Products and Equipment**

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

<b>End-Use Category: Air Conditioning</b>		
<b>End-Use</b>	<b>Prohibited Substances</b>	<b>Effective Date</b>
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

<b>End-Use Category: Refrigeration</b>		
<b>End-Use</b>	<b>Prohibited Substances</b>	<b>Effective Date</b>
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

<b>End-Use Category: Refrigeration</b>		
<b>End-Use</b>	<b>Prohibited Substances</b>	<b>Effective Date</b>
<u>Household refrigerators and freezers - Compact (New)</u>	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	<u>January 1, 2021</u>
<u>Household refrigerators and freezers - Built-in appliances (New)</u>	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	<u>January 1, 2023</u>
<u>Supermarket systems (Retrofit)</u>	R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R-428A, R-434A, R-507A	<u>January 1, 2020</u>
<u>Supermarket systems (New)</u>	HFC-227ea, R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R-428A, R-434A, R-507A	<u>January 1, 2020</u>
<u>Remote condensing units, except for automatic commercial ice machines (Retrofit)</u>	R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R-428A, R-434A, R-507A	<u>January 1, 2020</u>
<u>Remote condensing units, except for automatic commercial ice machines (New)</u>	HFC-227ea, R-404A, R-407B, R-421B, R-422A, R-422C, R-422D, R-428A, R-434A, R-507A	<u>January 1, 2020</u>
<u>Automatic commercial ice machines - Remote condensing units (New and retrofit)</u>	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	<u>January 1, 2025</u>
<u>Stand-alone units, except for automatic commercial ice machines (Retrofit)</u>	R-404A, R-507A	<u>January 1, 2020</u>
<u>Stand-alone medium-temperature units (New)</u>	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	<u>January 1, 2020</u>
<u>Stand-alone low-temperature units (New)</u>	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)	<u>January 1, 2020</u>
<u>Automatic commercial ice machines - Stand-alone units (New and retrofit)</u>	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	<u>January 1, 2025</u>
<u>Refrigerated food processing and dispensing equipment (New)</u>	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)	<u>January 1, 2021</u>
<u>Vending machines (Retrofit)</u>	R-404A, R-507A	<u>January 1, 2022</u>

<b>End-Use Category: Refrigeration</b>		
<b>End-Use</b>	<b>Prohibited Substances</b>	<b>Effective Date</b>
<u>Vending machines (New)</u>	<u>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</u>	<u>January 1, 2022</u>

<b>End-Use Category: Foams</b>		
<b>End-Use</b>	<b>Prohibited Substances</b>	<b>Effective Date</b>
<u>Rigid polyurethane and polyisocyanurate laminated boardstock</u>	<u>HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof</u>	<u>January 1, 2020</u>
<u>Flexible polyurethane</u>	<u>HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof</u>	<u>January 1, 2020</u>
<u>Integral skin polyurethane</u>	<u>HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, Formacel Z-6</u>	<u>January 1, 2020</u>
<u>Polystyrene extruded sheet</u>	<u>HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, Formacel Z-6</u>	<u>January 1, 2020</u>
<u>Phenolic insulation board and bunstock</u>	<u>HFC-143a, HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof</u>	<u>January 1, 2020</u>
<u>Rigid polyurethane slabstock and other</u>	<u>HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, Formacel Z-6</u>	<u>January 1, 2020</u>
<u>Rigid polyurethane appliance foam</u>	<u>HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, Formacel Z-6</u>	<u>January 1, 2020</u>
<u>Rigid polyurethane commercial refrigeration and sandwich panels</u>	<u>HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, Formacel Z-6</u>	<u>January 1, 2020</u>
<u>Polyolefin</u>	<u>HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, Formacel Z-6</u>	<u>January 1, 2020</u>
<u>Rigid polyurethane marine flotation foam</u>	<u>HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, Formacel Z-6</u>	<u>January 1, 2020</u>
<u>Polystyrene extruded boardstock and billet (XPS)</u>	<u>HFC-134a, HFC-245fa, HFC-365mfc, and blends thereof; Formacel TI, Formacel B, Formacel Z-6</u>	<u>January 1, 2021</u>
<u>Rigid polyurethane high-pressure two-component spray foam</u>	<u>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</u>	<u>January 1, 2020</u>
<u>Rigid polyurethane low-pressure two-component spray foam</u>	<u>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</u>	<u>January 1, 2021</u>
<u>Rigid polyurethane one-component foam sealants</u>	<u>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</u>	<u>January 1, 2020</u>

(2) Table 2 in this section lists prohibited substances in new refrigeration equipment, as defined in WAC 173-443-030, with a refrigerant charge capacity of more than 50 pounds and the effective date of the prohibition, unless an exemption is provided for in WAC 173-443-050.

**TABLE 2. Prohibited Substances for New Refrigeration Equipment**

<b>End-Use</b>	<b>Criteria</b>	<b>Prohibited Substances</b>	<b>Effective Date</b>
<u>Retail food refrigeration including chillers</u>	<u>New refrigeration equipment with a charge capacity of more than 50 pounds</u>	<u>Refrigerants with a GWP of 150 or more</u>	<u>January 1, 2025</u>

<u>End-Use</u>	<u>Criteria</u>	<u>Prohibited Substances</u>	<u>Effective Date</u>
<u>Cold storage warehouses</u>	<u>New refrigeration equipment with a charge capacity of more than 50 pounds</u>	<u>Refrigerants with a GWP of 150 or more</u>	<u>January 1, 2025</u>
<u>Industrial process refrigeration excluding chillers</u>	<u>New refrigeration equipment with a charge capacity of more than 50 pounds</u>	<u>Refrigerants with a GWP of 150 or more</u>	<u>January 1, 2025</u>
<u>Chillers used for industrial process refrigeration</u>	<u>New refrigeration equipment with a charge capacity of more than 50 pounds</u>	<u>Refrigerants with a GWP of 750 or more</u>	<u>January 1, 2025</u>
<u>Ice rinks (New facilities)</u>	<u>New refrigeration equipment with a charge capacity of more than 50 pounds</u>	<u>Refrigerants with a GWP of 150 or more</u>	<u>January 1, 2024</u>
<u>Ice rinks (Existing facilities)</u>	<u>New refrigeration equipment with a charge capacity of more than 50 pounds</u>	<u>Refrigerants with a GWP of 750 or more</u>	<u>January 1, 2024</u>

(3) Table 3 in this section lists prohibited substances in new air conditioning equipment, as defined in WAC 173-443-030, and the effective date of the prohibition, unless an exemption is provided for in WAC 173-443-050.

**TABLE 3. Prohibited Substances for New Air Conditioning Equipment**

<u>End-Use</u>	<u>Criteria</u>	<u>Prohibited Substances</u>	<u>Effective Date</u>
<u>Room air conditioners and residential dehumidifiers</u>	<u>New air conditioning equipment</u>	<u>Refrigerants with a GWP of 750 or more</u>	<u>January 1, 2024</u>
<u>Other types of air conditioning equipment used in residential and nonresidential applications</u>	<u>New air conditioning equipment</u>	<u>Refrigerants with a GWP of 750 or more</u>	<u>January 1, 2028</u>
<u>Variable refrigerant flow (VRF) or volume system</u>	<u>New air conditioning equipment</u>	<u>Refrigerants with a GWP of 750 or more</u>	<u>January 1, 2026</u>

(4) Table 4 in this section lists prohibited substances in small containers of refrigerant and nonessential consumer products, as the terms are defined in WAC 173-443-030, and the effective date of the prohibition.

**TABLE 4. Prohibited Substances for Small Containers of Refrigerant and Nonessential Consumer Products**

<u>End-Use</u>	<u>Prohibited Substances</u>	<u>Effective Date</u>
<u>Small containers of refrigerant</u>	<u>Substitutes with a GWP of 150 or more</u>	<u>July 25, 2021</u>
<u>Nonessential consumer products</u>	<u>Substitutes with a GWP of 150 or more</u>	<u>July 25, 2021</u>

[Statutory Authority: Chapters 70A.45 and 70A.15 RCW. WSR 21-01-085 (Order 19-04), § 173-443-040, filed 12/10/20, effective 1/10/21.]



AMENDATORY SECTION (Amending WSR 21-01-085, filed 12/10/20, effective 1/10/21)

**WAC 173-443-050 Exemptions applicable to WAC 173-443-040, Tables 1 through 3.** ((The following table)) (1) Table 1 in this section lists exemptions to the prohibitions listed in WAC 173-443-040, Table 1.

<b>((End-Use Category</b>	<b>Prohibited Substitutes</b>	<b>Acceptable Uses</b>
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-227ea and HFC-134a	FDA-approved MDIs for medical purposes.
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.))

**TABLE 1. Exemptions for New Products and Equipment**

<u>End-Use</u>	<u>Prohibited Substances</u>	<u>Exemptions</u>
<u>Aerosol propellants</u>	<u>HFC-134a</u>	<p><u>Cleaning products for removal of grease;</u></p> <p><u>Flux and other soils from electrical equipment;</u></p> <p><u>Refrigerant flushes;</u></p> <p><u>Products for sensitivity testing of smoke detectors;</u></p> <p><u>Lubricants and freeze sprays for electrical equipment or electronics;</u></p> <p><u>Sprays for aircraft maintenance;</u></p> <p><u>Sprays containing corrosion preventive compounds used in the maintenance of aircraft, electrical equipment or electronics, or military equipment;</u></p> <p><u>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;</u></p> <p><u>Mold release agents and mold cleaners;</u></p> <p><u>Lubricants and cleaners for spinnerettes for synthetic fabrics;</u></p> <p><u>Duster sprays specifically for removal of dust from photographic negatives, semiconductor chips, specimens under electron microscopes, and energized electrical equipment;</u></p> <p><u>Adhesives and sealants in large canisters;</u></p> <p><u>Document preservation sprays;</u></p> <p><u>FDA-approved MDIs for medical purposes;</u></p> <p><u>Wound care sprays;</u></p> <p><u>Topical coolant sprays for pain relief;</u></p> <p><u>Products for removing bandage adhesives from skin;</u></p> <p><u>Bear spray; and</u></p> <p><u>Pepper spray.</u></p>
<u>Aerosol propellants</u>	<u>HFC-227ea and blends of HFC-227ea and HFC-134a</u>	<u>FDA-approved MDIs for medical purposes.</u>
<u>Air conditioning: Centrifugal chillers Positive displacement chillers</u>	<u>HFC-134a</u>	<u>Military marine vessels where reasonable efforts have been made to ascertain that other alternatives are not technically feasible due to performance or safety requirements.</u>
<u>Air conditioning: Centrifugal chillers Positive displacement chillers</u>	<u>HFC-134a and R-404A</u>	<u>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.</u>
<u>Foams - Except rigid polyurethane spray foam</u>	<u>All substitutes</u>	<u>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.</u>
<u>Rigid polyurethane two-component spray foam</u>	<u>All substitutes</u>	<u>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.</u>

(2) Table 2 in this section lists exemptions for new stationary refrigeration equipment prohibitions listed in WAC 173-443-040, Table 2.

**TABLE 2. Exemptions For New Stationary Refrigeration Equipment**

<b><u>End-Use</u></b>	<b><u>Prohibited Substances</u></b>	<b><u>Exemptions</u></b>
<u>Retail food refrigeration, including chillers</u>	<u>Refrigerants with a GWP of 150 or more</u>	<u>Equipment with 50 pounds or less of refrigerant;</u> <u>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; and</u> <u>Facilities with new refrigeration equipment with a building permit issued before the effective date of this chapter.</u>
<u>Cold storage warehouses</u>	<u>Refrigerants with a GWP of 150 or more</u>	<u>Equipment with 50 pounds or less of refrigerant;</u> <u>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; and</u> <u>Facilities with new refrigeration equipment with a building permit issued before the effective date of this chapter.</u>
<u>Industrial process refrigeration, excluding chillers</u>	<u>Refrigerants with a GWP of 150 or more</u>	<u>Equipment with 50 pounds or less of refrigerant;</u> <u>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;</u> <u>Very low temperature (VLT) refrigeration or cooling uses; and</u> <u>Facilities with new refrigeration equipment with a building permit issued before the effective date of this chapter.</u>
<u>Chillers used for industrial process refrigeration</u>	<u>Refrigerants with a GWP of 750 or more</u>	<u>Equipment with 50 pounds or less of refrigerant;</u> <u>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;</u> <u>Very low temperature (VLT) refrigeration or cooling uses; and</u> <u>Facilities with new refrigeration equipment with a building permit issued before the effective date of this chapter.</u>

(3) Table 3 in this section lists exemptions for new stationary air conditioning equipment prohibitions listed in WAC 173-443-040, Table 3.

**TABLE 3. Exemptions for New Stationary Air Conditioning Equipment**

<b><u>End-Use</u></b>	<b><u>Prohibited Substances</u></b>	<b><u>Exemptions</u></b>
<u>Room air conditioners and residential dehumidifiers</u>	<u>Refrigerants with a GWP of 750 or more</u>	<u>Facilities with new air conditioning equipment with a building permit issued before the effective date of this chapter.</u>

<u>End-Use</u>	<u>Prohibited Substances</u>	<u>Exemptions</u>
<u>Variable refrigerant flow (VRF) or volume system</u>	<u>Refrigerants with a GWP of 750 or more</u>	<u>Facilities with new air conditioning equipment with a building permit issued before the effective date of this chapter.</u>
<u>Other types of air conditioning equipment used in residential and nonresidential applications</u>	<u>Refrigerants with a GWP of 750 or more</u>	<u>Facilities with new air conditioning equipment with a building permit issued before the effective date of this chapter.</u>

[Statutory Authority: Chapters 70A.45 and 70A.15 RCW. WSR 21-01-085 (Order 19-04), § 173-443-050, filed 12/10/20, effective 1/10/21.]

AMENDATORY SECTION (Amending WSR 21-01-085, filed 12/10/20, effective 1/10/21)

**WAC 173-443-060 Prohibitions and additional requirements for new products and equipment listed in Table 1.** (1) Prohibitions. No person may offer for sale, lease, rent, install, or otherwise cause to enter into Washington commerce any new product or equipment, as defined in WAC 173-443-030, that contains ~~((,))~~ or uses ~~((, or will use HFCs or other substitutes prohibited for an end-use))~~ a prohibited substance listed in WAC 173-443-040, Table 1, unless an exemption is provided for in WAC 173-443-050.

(2) Sell through provisions.

~~((a))~~ (a) Products and equipment manufactured prior to the ~~((applicable))~~ effective date of a prohibition in WAC 173-443-040, Table 1, may be sold, leased, rented, imported, exported, distributed, installed, used, or otherwise introduced into Washington commerce after the date of prohibition.

~~((a))~~ (a) For products and equipment imported from outside the United States, the date of import may be considered the date of manufacture.

~~((b))~~ (b) For refrigeration equipment and chillers, the date the manufacturer affixed an equipment label indicating the equipment's date of manufacture is the date of manufacture.

~~((c))~~ (c) Polyurethane foam systems manufactured (blended) before ~~((an applicable))~~ the prohibition date and not yet applied on site may be used after the prohibition date.

(3) Other allowances. Except where ~~((an))~~ existing ~~((system))~~ equipment is retrofit, nothing in this chapter requires a person ~~((that))~~ who acquired a product or equipment ~~((containing))~~ that contains or ~~((using))~~ uses a prohibited ~~((substitute))~~ substance prior to the effective date of a prohibition in WAC 173-443-040 to cease use of that product or equipment.

(4) Product labeling and disclosure.

(a) Except as provided in (d) and (e) of this subsection and for products and equipment listed as exempt in WAC 173-443-060, a manufacturer of any new product or equipment listed in Table 1 must disclose the substance(s) contained or used through labeling the product(s) or equipment in accordance with this subsection.

(b) Effective date. The effective date for product labeling and disclosure is January 10, 2021, or one year from the effective date of an applicable prohibition, whichever is later.

(c) Disclosure methods.

(i) A manufacturer of aerosol propellant products must disclose the substance(s) contained or used in such products through one of the following methods:

(A) For aerosol products regulated by the U.S. Consumer Product Safety Commission, the U.S. Food and Drug Administration excluding prescription drug products, or products that are not covered by

(c) (i) (B) of this subsection:

(I) New dedicated label;

(II) On-packaging label;

(III) A label required by another jurisdiction that discloses the substance(s) used or the compliance status of the product; or

(IV) On-product or on-packaging symbol or code; and online disclosure.

(B) For aerosol products regulated by EPA under the Federal Insecticide Fungicide and Rodenticide Act, aerosol products regulated by the Occupational Safety and Health Administration, or aerosol products regulated by the U.S. Food and Drug Administration:

(I) Any option in (c) (ii) (A) through (D) of this subsection; or

(II) A product document, such as a Safety Data Sheet (SDS), that complies with 29 C.F.R. § 1910.1200; and online disclosure if the SDS is not posted online.

(ii) A manufacturer of refrigeration equipment (including refrigeration equipment that contains foam) must disclose the substance(s) contained or used in such equipment through one of the following methods:

(A) For the refrigerant used in household refrigerators and freezers - Compact, and household refrigerators and freezers - Built-in:

(I) New dedicated label;

(II) Underwriters laboratories or equivalent safety label;

(III) A label required by another jurisdiction that discloses the substance(s) used or the compliance status of the equipment; or

(IV) On-product 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) Underwriters laboratories or equivalent safety label;

(III) Owner's manual; or

(IV) On-equipment symbol or code; and online disclosure.

(C) For the refrigerant used in commercial refrigeration equipment:

(I) New dedicated label;

(II) Underwriters laboratories or equivalent safety label;

(III) A label required by another jurisdiction that discloses the substance(s) used or the compliance status of the equipment; or

(IV) On-product 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) Underwriters laboratories or equivalent safety label;

(III) Owner's manual; or

(IV) On-equipment symbol or code; and online disclosure.

(iii) A manufacturer of centrifugal or positive displacement chillers must disclose the substance(s) contained or used in such equipment through one of the following methods:

(A) For the refrigerant used in centrifugal and positive displacement chillers:

(I) New dedicated label;

(II) Underwriters laboratories or equivalent safety label;

(III) A label required by another jurisdiction that discloses the substance(s) used or the compliance status of the equipment; or

(IV) 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) Underwriters laboratories or equivalent safety label;

(III) Owner's manual;

(IV) A label required by another jurisdiction that discloses the substance(s) contained or the compliance status of the equipment; or

(V) On-product symbol or code; and online disclosure.

(iv) A manufacturer of foam products must disclose the substance(s) contained or used in such products through one of the following methods:

(A) For nonretail foam products, the following methods may be used on a unit or on each individual product within a unit:

(I) New dedicated label;

(II) On-packaging label;

(III) A label required by another jurisdiction that discloses the substance(s) used or the compliance status of the product; or

(IV) On-product or on-packaging symbol or code; and online disclosure.

(B) For retail foam products:

(I) New dedicated label;

(II) On-packaging label;

(III) A label required by another jurisdiction that discloses the substance(s) used or the compliance status of the product; or

(IV) On-product or on-packaging symbol or code; and online disclosure.

(C) For the foam blowing agent used in polyurethane foam systems, including spray foam systems:

(I) New dedicated label on the canister or cylinders;

(II) Existing product label on the canister or cylinders;

(III) On-packaging label;

(IV) A label required by another jurisdiction that discloses the substances(s) used or the compliance status of the product;

(V) On-packaging symbol or code; and online disclosure.

(v) Online disclosure may occur through online publication of an owner's manual, safety data sheet, or other documentation that provides information about the product to the end-user of the product.

(d) Alternative disclosure methods.

(i) A manufacturer may request approval to use an alternative disclosure method in lieu of the labeling options listed in (c) of this subsection by submitting a written statement to ecology. The written statement must:

(A) Describe the condition(s) or circumstance(s) that make it infeasible to comply with the labeling requirements of this subsection; and

(B) Propose an alternative disclosure method that satisfactorily communicates the substance(s) used or the compliance status of the product(s) or equipment.

(ii) Ecology will provide a written response to a manufacturer's request to use an alternative disclosure method by approving or deny-

ing the request, or requesting additional information, within 30 days of receipt.

(iii) Ecology may approve the request if it determines that the use of a label meeting the requirements in (c) of this subsection is not feasible for the particular product(s) or equipment.

(iv) If ecology approves the request, the effective date of the approval is the date the manufacturer received written confirmation from ecology that its proposed alternative disclosure method may be used to satisfy this subsection.

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

(5) Manufacturer reporting.

(a) A manufacturer of a product or equipment that contains or uses prohibited substance(s) as of July 28, 2020, for an end-use listed in Table 1 of this subsection, or a representative of the manufacturer, must report to ecology consistent with (b) and (c) of this subsection.

(i) It is only necessary for one person to report on behalf of the manufacturer for a particular product or equipment.

(ii) In the event of a manufacturer's failure to provide a complete, accurate, and timely report, ecology will require the submittal of the information from related persons or entities in the following order:

(A) The person or entity that manufactured, produced, or assembled the product or equipment, unless that person or entity has no presence in the United States.

(B) The person or entity that marketed the product or equipment under its name or trademark, unless that person or entity 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.

(iii) This subsection in no way limits the liability of any manufacturer, as defined in WAC 173-443-030, associated with the product or equipment from enforcement under chapter 70A.15 RCW.

(b) Initial status notification.

(i) By December 31, 2019, a 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 or uses any prohibited substance(s) listed in WAC 173-443-040, Table 1.

(ii) 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.

(iii) A manufacturer must submit an annual status notification using ecology's notification form. The current form is available on ecology's website. This initial status notification must provide:

(A) Contact information for the manufacturer;

(B) The name of the person authorized to represent the manufacturer for purposes of providing initial status notifications and status updates;

(C) All products and equipment within each applicable end-use;

(D) Which HFCs or other prohibited substance(s) are being used within each applicable end-use; and

(E) Signature and certification by the authorized representative for the manufacturer.

(c) Updated status notifications.

(i) Within 120 days after the effective date of a prohibition listed in WAC 173-443-040, a manufacturer affected by the prohibition must provide ecology with an updated status notification using ecology's form.

(ii) Within 120 days of a manufacturer's introduction into Washington commerce of a new or modified product or equipment that contains or uses a prohibited substance(s) listed in WAC 173-443-040, the manufacturer must provide ecology with an updated status notification using ecology's form.

(iii) The updated status notification required by (c)(i) and (ii) of this subsection must include:

(A) Whether the manufacturer has ceased use of the prohibited substance(s) listed in WAC 173-443-040 for each applicable product(s) or equipment within each end-use;

(B) What, if any, prohibited substance(s) remain in use; and

(C) Updated responses on all information requested in the initial status notification required in (b) of this subsection.

[Statutory Authority: Chapters 70A.45 and 70A.15 RCW. WSR 21-01-085 (Order 19-04), § 173-443-060, filed 12/10/20, effective 1/10/21.]

#### NEW SECTION

**WAC 173-443-065 Prohibitions and additional requirements for new refrigeration equipment listed in Table 2.** (1) Prohibitions. No person shall offer for sale, lease, rent, install, or otherwise cause to enter into Washington commerce any new refrigeration equipment, as defined in WAC 173-443-030, that contains or uses a prohibited substance listed in WAC 173-443-040, Table 2, unless an exemption is provided for in WAC 173-443-050.

(2) Labeling and disclosure. Beginning one year from the effective date of this chapter, a manufacturer of new refrigeration equipment, as defined in WAC 173-443-030, that is intended for sale or other entry into Washington commerce, must disclose the substance(s) contained or used in its equipment by labeling the equipment in accordance with this subsection.

(a) The following information must be disclosed in the form of an on-product label:

(i) Chemical name, or American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE) designation, of the substance(s) used or contained in the equipment;

(ii) The GWP, labeled as "global warming potential," of the substance(s) used or contained in the equipment;

(iii) The date of manufacture, or at a minimum, the year of manufacture. For field charged or field erected equipment, this is the date of first charge; and

(iv) Full refrigerant charge size in ounces, pounds, or kilograms.

(b) Existing labels meeting the above requirements may be used.

(3) Recordkeeping. As of the effective date of this chapter, a manufacturer of any new refrigeration equipment, as defined in WAC 173-443-030, must maintain for a minimum of five years, and make available upon request by ecology, a copy of the following records:

(a) Sector or subsector of the equipment;



- (b) Refrigerant type the equipment is designed to use;
- (c) Date of manufacture or import;
- (d) Name of company or entity to whom the equipment was sold or otherwise distributed;
- (e) The bill of lading; and
- (f) The invoice.

[]

NEW SECTION

**WAC 173-443-075 Prohibitions and additional requirements for new air conditioning equipment listed in Table 3.** (1) Prohibitions. No person shall offer for sale, lease, rent, install, or other cause to enter into Washington commerce any new air conditioning equipment, as defined in WAC 173-443-030, that contains or uses a prohibited substance listed in WAC 173-443-040, Table 3, unless an exemption is provided for in WAC 173-443-050.

(2) Labeling and disclosure. Beginning one year from the effective date of this chapter, a manufacturer of any new air conditioning equipment, as defined in WAC 173-443-030, that is intended for sale or other entry into Washington commerce, must disclose the substance(s) contained or used in its equipment by labeling the equipment in accordance with this subsection.

(a) The following information must be disclosed in the form of an on-product label:

(i) Chemical name, or American Society of Heating and Air Conditioning Engineers (ASHRAE) designation, of the substance(s) used or contained in the equipment;

(ii) The GWP, labeled as "global warming potential," of the substance(s) used or contained in the equipment;

(iii) Date of manufacture or import; and

(iv) Refrigerant charge size in ounces, pounds, or kilograms.

(b) Existing labels meeting the above requirements may be used.

(3) Recordkeeping. As of the effective date of this chapter, a manufacturer of any new air conditioning equipment, as defined in WAC 173-443-030, must maintain for a minimum of five years, and make available upon request by ecology, a copy of the following records:

(a) The sector or subsector of the equipment;

(b) Refrigerant type the equipment is designed to use and its GWP value;

(c) Date of manufacture or import;

(d) Model and serial number;

(e) Name of company or retailer to whom the equipment was sold or otherwise distributed;

(f) The bill of lading; and

(g) The invoice.

[]

NEW SECTION

**WAC 173-443-085 Prohibitions for small containers of refrigerant and nonessential consumer products listed in Table 4.** Prohibitions. No person shall sell, offer for sale, or purchase a small container of refrigerant or a nonessential consumer product that contains or uses a prohibited substance listed in WAC 173-443-040, Table 4, unless an exemption is provided for in WAC 173-443-050.

[]

NEW SECTION

**WAC 173-443-095 Variances.** (1) An applicant may apply to ecology for a variance from the prohibitions of WAC 173-443-040, Table 2 or Table 3. Ecology may grant a variance if it determines that the request meets the conditions identified in subsection (2) of this section and the applicant has complied with subsection (3) of this section.

(2) Types of variances.

(a) Impossibility. Ecology may grant a variance if the applicant demonstrates that the requested exemption will not increase the overall risk to human health or the environment and all of the following apply:

(i) A substance that complies with the applicable threshold is not currently or potentially available; and

(ii) The applicant has made a good faith effort to anticipate, address, and mitigate any potential noncompliance.

(b) Force majeure. Ecology may grant a variance if the applicant demonstrates that the requested exemption will not increase the overall risk to human health or the environment and all of the following apply:

(i) The applicant cannot comply with the applicable prohibitions due to a force majeure event; and

(ii) The applicant has made a good faith effort to anticipate, address, and mitigate the impacts of any force majeure event.

(c) Economic hardship. Ecology may grant a variance if the applicant demonstrates that the requested exemption will not increase the overall risk to human health or the environment and all of the following apply:

(i) The applicant owns or operates a retail food facility or a small business, as defined in WAC 173-443-030;

(ii) Compliance with the applicable prohibitions would result in closure of the entire retail food facility or small business, or a large portion thereof, or a substantial loss of revenue from the retail food facility or small business; and

(iii) The applicant has made a good faith effort to anticipate, address, and mitigate any potential noncompliance.

(3) Application process. To apply for a variance, the applicant must submit an application that meets the requirements of (a) through (i) of this subsection:

(a) Applicant name, ownership status, address, telephone number, and email address;

(b) Description of business activity or product description;

- (c) The specific prohibition(s) for which a variance is requested;
- (d) An explanation of the reasons for seeking a variance;
- (e) Evidence demonstrating how the variance request meets the criteria identified in subsection (2)(a) or (b) or (c) of this section;
- (f) Length of variance requested and the earliest date when compliance can be achieved;
- (g) A description of the damage or harm that will result from having to comply with the applicable prohibition(s) within the required time frame;
- (h) A proposed compliance plan describing how and when compliance with the applicable prohibition(s) will be achieved after the variance is granted. The compliance plan must include all of the following:
  - (i) The method(s) by which compliance will be achieved;
  - (ii) Milestone achievements;
  - (iii) Milestone dates; and
  - (iv) A proposed mitigation plan that demonstrates how the applicant will reduce greenhouse gas emissions while the variance is in place. The mitigation plan must include all calculations used to determine emissions estimates.
- (i) 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

- (4) Approval and disapproval process.
  - (a) Ecology will determine whether the variance application is complete and will notify the applicant of its completeness determination within 30 days of receipt of the application. Only complete applications will be considered.
  - (b) Within 60 days of determining that a variance application is complete, ecology will notify the applicant of the decision in writing, and if approved, will specify the terms and conditions of the variance in a letter to the applicant. The applicant and ecology may mutually agree to a longer time period for ecology's review period.
  - (c) During the review period, ecology may request, and the applicant must provide, more information as needed to reach a decision.
  - (d) Ecology will grant a variance only to the applicant. The variance is not transferable.
  - (e) Ecology will not approve a variance retroactively to any date prior to receipt of the application.
  - (f) An applicant adversely affected by ecology's denial of a variance or by the terms and conditions of an approved variance may appeal ecology's decision to the pollution control hearings board pursuant to chapter 43.21B RCW.
- (5) Failure to comply with the terms and conditions of an approved variance.
  - (a) An applicant must comply with the terms and conditions of an approved variance to maintain its approved status.
  - (b) Ecology may revoke or modify the variance approval if it determines that an applicant no longer meets the criteria specified in the variance approval letter.

(c) An applicant adversely affected by an ecology decision to revoke or modify an approved variance may appeal ecology's decision to the pollution control hearings board pursuant to chapter 43.21B RCW.

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## PART II - REGRIGERANT MANAGEMENT PROGRAM

### NEW SECTION

**WAC 173-443-105 Refrigerant management program (RMP) purpose and applicability.** (1) The purpose of the RMP is to reduce greenhouse gas emissions from stationary commercial refrigeration and air conditioning systems and from the installation and servicing of stationary refrigeration and air conditioning systems using high-GWP refrigerants.

(2) The RMP requirements apply to:

(a) Any owner or operator of a facility that has a refrigeration or air conditioning system with a full charge greater than or equal to 50 pounds of a high-GWP refrigerant;

(b) Any person who installs, repairs, maintains, services, or disposes of refrigeration or air conditioning equipment; and

(c) Any person who wholesales, distributes, or reclaims any amount of high-GWP refrigerants in Washington.

[]

### NEW SECTION

**WAC 173-443-115 Registration requirements for facilities with refrigeration or air conditioning systems.** (1) Full charge of 1,500 pounds or greater. The owner or operator of a facility that has a refrigeration or air conditioning system with a full charge greater than or equal to 1,500 pounds of a high-GWP refrigerant must register with ecology by providing the information specified in subsection (6) of this section as follows:

(a) By March 15, 2024, for refrigeration or air conditioning systems that begin operations on or before January 1, 2024; or

(b) By March 15th of the calendar year after the year in which the system begins operations for systems that begin operating after January 1, 2024.

(2) Full charge of 200 to 1,499 pounds. The owner or operator of a facility that has a refrigeration or air conditioning system with a full charge greater than 199 pounds, but less than 1,500 pounds of a high-GWP refrigerant must register with ecology by providing the information specified in subsection (6) of this section as follows:

(a) By March 15, 2026, for refrigeration or air conditioning systems that begin operations on or before January 1, 2026; or

(b) By March 15th of the calendar year after the year in which the system begins operations for systems that begin operating after January 1, 2026.

(3) Full charge of 50 to 199 pounds. The owner or operator of a facility that has a refrigeration or air conditioning system with a full charge greater than or equal to 50 pounds, but less than 200 pounds of a high-GWP refrigerant must register with ecology by providing the information specified in subsection (6) of this section as follows:

(a) By March 15, 2028, for refrigeration or air conditioning systems that begin operations on or before January 1, 2028; or

(b) By March 15th of the calendar year after the year in which the system begins operations for systems that begin operating after January 1, 2028.

(4) New owners. If there is a change of ownership of a facility that has been registered in accordance with this section, the new owner or operator must register with ecology by March 15th of the calendar year after the change of ownership occurred.

(5) New facilities. The owner or operator of a newly constructed facility, or a facility that is converted for a use that is subject to this chapter, must register the facility with ecology within three months of beginning operations.

(6) Registration information. To register, the owner or operator must provide the following information through the Washington RMP reporting system:

(a) Facility information:

(i) Facility identification number. The identification number for each facility will be assigned by the WA RMP data reporting system;

(ii) Name of facility;

(iii) Name of owner(s);

(iv) Name of operator(s), if different than the owner(s);

(v) North American Industry Classification System (NAICS) code;

(vi) Facility mailing address including street address, city, state, and zip code;

(vii) Facility physical address including street address, city, state, and zip code;

(viii) Facility contact person; and

(ix) Facility contact person's phone number and email address.

(b) Refrigeration or air conditioning system information:

(i) System identification number. The identification number for each system will be assigned by the WA RMP data reporting system;

(ii) System type. The system type must include whether it is a refrigeration or air conditioning system and the specific end-use;

(iii) Equipment manufacturer;

(iv) Equipment model and model year;

(v) Equipment serial number. If the equipment is part of an assembly without a serial number or the serial number is not accessible after assembly, the physical location of the equipment must be recorded;

(vi) Temperature classification. Refrigeration systems must be identified as a very low-temperature, low-temperature, or medium-temperature system, or other;

(vii) Full charge the system is designed for in order to maintain normal operating characteristics; and

(viii) Type of high-GWP refrigerant(s) used.

(7) Change of ownership. Prior to any change of ownership of a facility that has been registered in accordance with this section, the seller must ensure all of the following are completed:

(a) The seller must confirm that the registered refrigeration or air conditioning system is free of refrigerant leaks through a leak inspection performed by a technician certified by EPA under 40 C.F.R. § 82.161;

(b) The seller must inform the prospective buyer of the registration requirements of this section; and

(c) The seller must submit a change of ownership notification to ecology that includes all of the following:

(i) Seller information:

(A) Facility identification number as it appears in the WA RMP data reporting system;

(B) Name of owner or operator; and

(C) Name of facility.

(ii) Prospective buyer information:

(A) Name of owner(s);

(B) Name of operator(s), if different than the owner(s);

(C) Name of facility;

(D) Facility mailing address, including street address, city, state, and zip code;

(E) Facility contact person; and

(F) Facility contact person phone number and email address.

[]

#### NEW SECTION

**WAC 173-443-125 Registration requirements for refrigerant wholesalers, distributors, and reclaimers.** (1) By March 15, 2024, a refrigerant wholesaler, distributor, or reclaimer that sells, supplies, distributes, or reclaims any amount of high-GWP refrigerant in Washington for any purpose, other than those listed in subsection (2) of this section, must register with ecology by providing the information specified in subsection (3) of this section.

(2) This section does not apply to the sale, supply, distribution, or reclamation of high-GWP refrigerants for the sole purpose of either:

(a) Selling to a refrigerant distributor or wholesaler for eventual resale; or

(b) Providing to a person for reclamation or destruction.

(3) (a) Registration information. A refrigerant wholesaler, distributor, or reclaimer must provide the following information to ecology through the Washington RMP reporting system:

(b) Facility information:

(i) Name of facility;

(ii) Name of owner(s);

(iii) North American Industry Classification (NAICS) code;

(iv) Facility mailing address, including street address, city, state, and zip code;

(v) Facility physical address, including street address, city, state, and zip code;

(vi) Facility contact person;

(vii) Facility contact person's phone number and email address;

(viii) Name and physical address of each wholesale, distribution, or reclaim facility under the registrant's operational control; and

(ix) Name and email address of contact person for each wholesale, distribution, or reclaim facility under the registrant's operational control.

(4) Change of ownership. Prior to any change of ownership of an entity that has been registered pursuant to this section, the seller must ensure all of the following are completed:

(a) The facility must be registered in accordance with this section;

(b) The seller must inform the prospective buyer of the registration requirements of this section; and

(c) The seller must submit a change of ownership notification to ecology that includes all of the following:

(i) Seller information:

(A) Name of facility;

(B) Facility identification number; as it appears in the WA RMP data reporting system; and

(C) Name of person selling the facility;

(ii) Prospective buyer information:

(A) Name of person(s) buying the facility;

(B) Facility mailing address including a street address, city, state, and zip code;

(C) Facility contact person; and

(D) Facility contact person's phone number and email address.

[]

#### NEW SECTION

**WAC 173-443-135 Implementation fees for facilities with refrigeration or air conditioning systems.** (1) Initial implementation fee. An initial implementation fee must be paid by each owner or operator of a facility that has a refrigeration or air conditioning system with a full charge greater than or equal to 1,500 pounds of a high-GWP refrigerant.

(a) The initial implementation fee is due and payable to ecology within 30 days of receipt of the invoice.

(b) The amount of the initial implementation fee is \$150.

(2) Annual implementation fee. An annual implementation fee must be paid by each owner or operator of a facility that has a refrigeration or air conditioning system with a full charge greater than or equal to 200 pounds of a high-GWP refrigerant.

(a) The annual implementation fee is due and payable to ecology no later than 30 days of receipt of the annual invoice, beginning with the year in which the initial implementation fee is required under subsection (1) of this section.

(b) The amount of the annual implementation fee is determined by this subsection. If the facility has more than one refrigeration or air conditioning system, the amount of the fee is based on the refrigeration or air conditioning system operating at the facility with the largest charge size.

(i) Systems with a full charge of 1,500 or more pounds.

(A) Beginning January 1, 2024, the annual implementation fee for facilities that have a refrigeration or air conditioning system with a full charge of 1,500 pounds or greater is \$370.

(B) Beginning January 1, 2025, and each year thereafter, the amount of the annual implementation fee will be established in accordance with WAC 173-455-160.

(ii) Systems with a full charge of 200 to 1,499 pounds.

(A) Beginning January 1, 2026, the annual implementation fee for facilities that have a refrigeration or air conditioning system with a full charge of 200 to 1,499 pounds is \$170.

(B) Beginning January 1, 2027, and each year thereafter, the amount of the annual implementation fee will be established in accordance with WAC 173-455-160.

(3) There are no implementation fees for refrigerant wholesalers, distributors, or reclaimers.

[ ]

#### NEW SECTION

##### **WAC 173-443-145 Leak detection and monitoring requirements.** (1)

Leak inspection requirements for year-round refrigeration and air conditioning systems with a full charge capacity greater than or equal to 1,500 pounds.

(a) By January 1, 2024, the owner or operator of a facility that has a refrigeration or air conditioning system with a full charge capacity greater than or equal to 1,500 pounds of a high-GWP refrigerant, that is intended to operate year-round, must do all of the following:

(i) Conduct a leak inspection of the full system each month using a calibrated refrigerant leak detection device, or bubble test, unless an automatic leak detection system that meets the requirements of subsection (2)(b) or (c) of this section is installed and functioning correctly on the system.

(ii) Conduct a leak inspection of the full system at the time of verification test or follow-up verification test following a leak repair.

(iii) Conduct a leak inspection of the full system each time refrigerant is added to the system in an amount equal to or greater than five pounds, or one percent of the full charge, whichever is greater.

(iv) Conduct a leak inspection of the full system each time oil residue is observed on any refrigerant circuit component indicating a refrigerant leak.

(2) Automatic leak detection requirements for refrigeration systems with a full charge of 1,500 pounds or more.

(a) The owner or operator of a refrigeration system with a full charge capacity greater than or equal to 1,500 pounds of a high-GWP refrigerant, that is intended to operate year-round, must do the following:

(i) By January 1, 2025, install an automatic leak detection system that meets the requirements of (b) or (c) of this subsection if:

(A) The refrigerant circuit is located entirely within an enclosed building or structure; or



(B) The compressor, evaporator, condenser, or any other component of the refrigeration system is located inside an enclosed building or structure.

(ii) Installation of an automatic leak detection system under (b) or (c) of this subsection is not required if the refrigeration system will be replaced or retrofitted to use a low-GWP refrigerant before January 1, 2027. Written documentation of the intent to transition and the anticipated timeline for the transition must be signed by the facility's representative and kept in accordance with WAC 173-443-195.

(b) For an automatic leak detection system that detects the presence of a high-GWP refrigerant in the air, the automatic leak detection system must be annually audited and calibrated using the manufacturer-recommended procedures so that it:

(i) Accurately detects a concentration level of 10 parts per million of vapor of the specific refrigerant(s) used in the refrigeration system; and

(ii) Alerts the operator when a refrigerant concentration of 100 parts per million of vapor of the refrigerant(s) is reached.

(c) For an automatic leak detection system that interprets measurements to indicate a refrigerant leak, the automatic leak detection system must be annually audited and calibrated using manufacturer-recommended procedures so that it will alert the owner or operator when measurements indicate a loss of 50 pounds of refrigerant or 10 percent of the system's full charge, whichever is less.

(d) If an automatic leak detection system alerts the owner or operator of a leak, a leak inspection must be performed on the system within 24 hours of the alert. The leak inspection must be conducted using a calibrated refrigerant leak detection device or a bubble test to confirm a refrigerant leak and determine the location.

(3)(a) Leak inspection requirements for year-round refrigeration and air conditioning systems with a full charge greater than or equal to 200 pounds but less than 1,500 pounds.

(b) By January 1, 2024, the owner or operator of a facility that has a refrigeration or air conditioning system with a full charge greater than or equal to 200 pounds but less than 1,500 pounds, that is intended to operate year-round, must do all of the following:

(i) Conduct a leak inspection of the full system at least once every three months using a calibrated refrigerant leak detection device, or bubble test, unless an automatic leak detection system that meets the requirements of subsection (2)(b) or (c) of this section is installed and functioning correctly on the system.

(ii) Conduct a leak inspection of the full system at the time of verification test or follow-up verification test following a leak repair.

(iii) Conduct a leak inspection of the full system each time refrigerant is added to the system in an amount equal to or greater than five pounds, or one percent of the full charge, whichever is greater.

(iv) Conduct a leak inspection of the full system each time oil residue is observed on any refrigerant circuit component indicating a refrigerant leak.

(4)(a) Leak inspection requirements for year-round refrigeration and air conditioning systems with a full charge greater than or equal to 50 pounds, but less than 200 pounds.

(b) By January 1, 2024, the owner or operator of a facility that has a refrigeration or air conditioning system with a full charge greater than or equal to 50 pounds, but less than 200 pounds, that is intended to operate year-round must do all of the following:

(i) Conduct a leak inspection of the full system at least once each year using a calibrated refrigerant leak detection device, or bubble test, unless an automatic leak detection system that meets the requirements of subsection (2)(b) or (c) of this section is installed and functioning correctly on the system.

(ii) Conduct a leak inspection of the full system at the time of verification test or follow-up verification test following a leak repair.

(iii) Conduct a leak inspection of the full system each time refrigerant is added to the system in an amount equal to or greater than five pounds, or one percent of the full charge, whichever is greater.

(iv) Conduct a leak inspection of the full system each time oil residue is observed on any refrigerant circuit component indicating a refrigerant leak.

(5) Leak inspection requirements for refrigeration and air conditioning systems not operated year-round.

(a) The owner or operator of a facility that has a refrigeration or air conditioning system that is not intended to operate year-round must conduct a leak inspection of the full system within 30 days after starting each operation of the system, and once every three months thereafter until the system is shut down.

(b) The leak inspections must be conducted using a calibrated refrigerant detection device, or bubble test.

(6) Leak detection and monitoring during system mothballing. The requirements of this section do not apply during the time that a system is undergoing mothballing. The requirements of this section will apply on the day the mothballed system resumes operation.

[ ]

#### NEW SECTION

**WAC 173-443-155 Leak rate thresholds and notification requirements.** (1) The owner or operator of a facility that has a refrigeration or air conditioning system with a full charge greater than or equal to 50 pounds of a high-GWP refrigerant must ensure that the leak rate of the system is calculated during each leak inspection and each time refrigerant is added to the system.

(2) The leak rate must be calculated using the 12-month rolling average method, as defined in WAC 173-443-030, and the results of each calculation must be kept on file in accordance with WAC 173-443-195.

(3) The owner or operator of a facility that has a refrigeration or air conditioning system that exceeds the applicable leak rate threshold, based on the 12-month rolling average, must notify ecology, through the WA RMP data reporting system, within 30 days of determination of the exceedance. The leak rate thresholds are as follows:

(a) Sixteen percent for a commercial or retail refrigeration system;

(b) Twenty-four percent for an industrial process refrigeration system; or

(c) Eight percent for an air conditioning system.

(4) Following the notification required by subsection (3) of this section, the owner or operator of a facility that has a refrigeration or air conditioning system that exceeds the applicable leak rate

threshold must also notify ecology of the following information by the specified deadlines:

(a) The results of a verification test required under WAC 173-443-165(5), no later than 30 days after expiration of the leak repair time frame under WAC 173-443-165 (7) (a);

(b) The results of a follow-up verification test, if required under WAC 173-443-165(6), no later than 30 days after completing the follow-up verification test; and

(c) Within 30 days of completion of all work described in a retrofit or retirement plan prepared in accordance with WAC 173-443-175.

[ ]

#### NEW SECTION

**WAC 173-443-165 Leak repair requirements.** (1) Beginning January 1, 2024, the owner or operator of a facility that has a refrigeration or air conditioning system with a refrigerant charge greater than or equal to 50 pounds of a high-GWP refrigerant must ensure that all detected refrigerant leaks are repaired as provided in this section and must maintain records of all repairs in accordance with WAC 173-443-195.

(2) Fourteen-day requirement. A refrigerant leak must be repaired by a certified technician, as defined in WAC 173-443-030, within 14 calendar days of its detection, except when a longer period is allowed under subsection (3) or (4) of this section.

(3) Forty-five-day allowance. The time period for repair of an identified refrigerant leak is up to 45 days if one or more of the following conditions apply:

(a) A certified technician is not available to complete the repair or replace the component(s). A written record must be kept in accordance with WAC 173-443-195, documenting that the owner or operator exercised due diligence in seeking the services of a certified technician immediately following detection of the leak and that no certified technician was available to complete the repair within 14 calendar days of the initial leak detection;

(b) The parts necessary to repair a leak are unavailable. A written record must be kept in accordance with WAC 173-443-195, documenting that the necessary parts were unavailable within 14 calendar days of the initial leak detection. The written record must include a written statement from the certified technician regarding the necessity of the parts and a written statement from the manufacturer regarding the availability of the parts; or

(c) The leak repair requires an industrial process shutdown that results in an industrial process temporarily ceasing to manufacture the desired product. A written record must be kept in accordance with WAC 173-443-195, documenting why the repair requires an industrial process shutdown and how long the shutdown would last.

(4) One hundred twenty-day allowance. The time period for a repair of an identified refrigerant leak is up to 120 days if all of the following conditions apply:

(a) The facility owner or operator is an entity subject to the mandatory reporting of greenhouse gas emissions under chapter 173-441 WAC;

(b) The leaking system is an industrial process refrigeration system;

(c) The leak repair requires an industrial process shutdown that results in ceasing to manufacture the desired product; and

(d) The owner or operator maintains written records documenting that the conditions in (a) through (c) of this subsection are met, in accordance with WAC 173-443-195.

(5) Verification test. A verification test must be conducted upon completion of any leak repair.

(6) Follow-up verification test. If a refrigeration or air conditioning system is evacuated during a leak repair, a follow-up verification test must be conducted within 14 days of the system reaching normal operating conditions.

(7) Refrigerant leak repair requirements after an unsuccessful verification test. If an initial or follow-up verification test indicates that a refrigerant leak is still occurring, and there is not an approved exemption in place under WAC 173-443-235, the owner or operator must do one of the following:

(a) Ensure the leak is repaired through a subsequent repair attempt(s) within a second time frame that equals the same number of days allowed under subsections (2) through (4) of this section; or

(b) Prepare a retrofit or retirement plan in accordance with WAC 173-443-175.

(8) Leak repair requirements during system mothballing. The requirements of this section do not apply during the time that a refrigeration or air conditioning system is undergoing mothballing. The requirements of this section will apply on the day the mothballed system resumes operation.

[ ]

#### NEW SECTION

**WAC 173-443-175 Requirements to prepare and implement a retrofit or retirement plan.** (1) The owner or operator of a facility that has a refrigeration or air conditioning system with a full charge greater than or equal to 50 pounds of a high-GWP refrigerant that is not repaired within the time frame provided in WAC 173-443-165 (2) through (4), and does not have an approved exemption under WAC 173-443-235, must prepare and implement a retrofit or retirement plan that meets all of the following conditions:

(a) The plan must establish a schedule to retrofit or retire a leaking refrigeration or air conditioning system for no later than six months after expiration of the second leak repair time frame under WAC 173-443-165 (7)(a). All work must be completed in this six-month period;

(b) The plan must be kept at the facility with the leaking refrigeration or air conditioning system in accordance with WAC 173-443-195;

(c) The plan must describe the retrofitted system, or the new system if an existing system is being replaced, and include the following:

(i) System identification number as it appears in the WA RMP reporting system registration;

(ii) System type;

(iii) Equipment manufacturer;  
 (iv) Equipment model or description;  
 (v) Temperature classification. A refrigeration system must be identified as a very low, low, medium, or other temperature system;  
 (vi) Full refrigerant charge;  
 (vii) Type of refrigerant to be used;  
 (viii) A timetable that includes the expected beginning date and completion date for the installation, construction, or retrofit; and  
 (ix) A signature by a representative of the facility and date signed.

(2) A retrofit or retirement plan prepared in accordance with subsection (1) of this section must be submitted to ecology if the applicable leak rate threshold, based on the 12-month rolling average, is exceeded. The plan must be submitted no later than 90 days following expiration of the leak repair time frame in WAC 173-443-165

(7) (a).

(3) Retrofit or retirement plans during system mothballing. The requirements of this section do not apply during the time that a refrigeration or air conditioning system is undergoing mothballing. The requirements of this section will apply on the day the mothballed system resumes operation.

[ ]

#### NEW SECTION

**WAC 173-443-185 Reporting requirements.** (1) The owner or operator of a facility that has a refrigeration or air conditioning system with a full charge greater than or equal to 200 pounds of a high-GWP refrigerant must submit an annual facility refrigeration or air conditioning report (annual report) to ecology each year.

(2) Annual reports must be submitted to ecology by March 15th for the previous calendar year the refrigeration or air conditioning system was in operation and must continue each calendar year thereafter. Annual reports must be submitted by the following dates:

(a) By March 15, 2025, for a refrigeration or air conditioning system with a full charge greater than or equal to 1,500 pounds that begins operation before January 1, 2024.

(b) For a refrigeration or air conditioning system with a full charge greater than or equal to 1,500 pounds that begins operation on or after January 1, 2024, the annual report must be submitted by March 15th of the year after the calendar year in which the system begins operation.

(c) By March 15, 2027, for a refrigeration or air conditioning system with a full charge greater than or equal to 200 pounds, but less than 1,500 pounds, that begins operation before January 1, 2026.

(d) For a refrigeration or air conditioning system with a full charge greater than or equal to 200 pounds, but less than 1,500 pounds, that begins operation on or after January 1, 2026, the annual report must be submitted by March 15th of the year after the calendar year in which the system begins operation.

(3) Annual reports must include the following information for the previous calendar year for each refrigeration or air conditioning system with a full charge greater than or equal to 200 pounds of a high-GWP refrigerant:

- (a) System information.
  - (i) System identification number as it appears in the WA RMP reporting system registration;
  - (ii) System type;
  - (iii) Equipment manufacturer;
  - (iv) Equipment model or description and model year;
  - (v) Equipment serial number. If the equipment is part of an assembly without a serial number, or the serial number is not accessible after assembly, the physical location of the equipment must be identified;
  - (vi) Temperature classification. A refrigeration system must be identified as a very low, low, medium, or other temperature system;
  - (vii) Total refrigerant charge of system;
  - (viii) Type of high-GWP refrigerant(s) used; and
  - (ix) Date of initial installation.
- (b) Service and leak repair information.
  - (i) Annual leak rate as calculated based on 12-month rolling average method;
  - (ii) Date of each leak inspection;
  - (iii) Date of each leak detection;
  - (iv) Date of service(s) or leak repair(s) completed;
- (c) Refrigerant purchases and use information.
  - (i) Total weight in pounds of each type of high-GWP refrigerant purchased;
  - (ii) Total weight in pounds of each type of high-GWP refrigerant charged into the system;
  - (iii) Total weight in pounds of each type of high-GWP refrigerant recovered from the system;
  - (iv) Total weight in pounds of each type of high-GWP refrigerant 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
  - (v) Total weight in pounds of any high-GWP refrigerant that was shipped by the owner or operator for reclamation and for destruction.

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#### NEW SECTION

**WAC 173-443-195 Recordkeeping requirements.** (1) Beginning January 1, 2024, the owner or operator of a facility that has a refrigeration or air conditioning system with a full charge greater than or equal to 50 pounds of a high-GWP refrigerant must maintain the following records for a minimum of five years:

- (a) All registration information required in WAC 173-443-115;
- (b) Documentation of all leak detection systems, leak inspections, and annual audit and calibrations for automatic leak detection systems;
- (c) 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 under WAC 173-443-165 (3) or (4);
- (d) Any retrofit or retirement plan required under WAC 173-443-175;
- (e) All reports required by WAC 173-443-185;

(f) Any application for an exemption under WAC 173-443-235 and any ecology notification of approval, denial, revocation, or modification of an exemption;

(g) Any plan or other written documentation required under WAC 173-443-145 (2) (a) (ii), signed by the facility's representative, indicating that the refrigeration or air conditioning system will be replaced or retrofitted to a low-GWP refrigerant before January 1, 2027;

(h) Invoices of all high-GWP refrigerant purchases;

(i) Records of all shipments of high-GWP refrigerants for reclamation or destruction. The records must include all of the following information:

(i) Name and address of the person the refrigerant was shipped to;

(ii) Date of shipment;

(iii) Type of refrigerant shipped;

(iv) Purpose of shipment (e.g., reclamation or destruction); and

(j) Records of all refrigeration or air conditioning systems component data, measurements, calculations, and assumptions used to determine the full charge.

(2) The records in subsection (1) of this section must be kept at the facility where the refrigeration or air conditioning system is in operation and must be made available to an authorized representative of ecology's HFC program upon request.

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#### NEW SECTION

**WAC 173-443-205 Required service practices.** 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 high-GWP refrigerant must comply with all of the following conditions:

(1) The person must hold a current, valid, and applicable certificate issued under 40 C.F.R. § 82.161 (as amended November 18, 2016);

(2) In preparing equipment for recycling or disposal, the person may not intentionally disrupt the refrigerant circuit resulting in a discharge to the atmosphere unless an attempt to recover the refrigerant is made using certified refrigerant recovery equipment;

(3) The person must evacuate the equipment in accordance with 40 C.F.R. § 82.156 when evacuation is required before opening equipment to atmospheric conditions. Refrigerant may be returned to the equipment from which it is recovered or to another piece of equipment owned by the same person without being recycled or reclaimed;

(4) The person may not add an additional refrigerant charge unless the refrigerant being added:

(a) Consists wholly of a regulated refrigerant as defined in WAC 173-443-030;

(b) Is an acceptable alternative under the EPA Significant New Alternatives Policy (SNAP) program for the specific equipment;

(5) The person may not add an additional refrigerant charge to equipment known to have a refrigerant leak unless the additional charge is needed to maintain operations while preparing for or conducting a leak repair.

(6) The person must use refrigerant recovery or recycling equipment certified by EPA under 40 C.F.R. § 82.158 (as amended November 18, 2016).

(7) 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

(8) The person must satisfy job site evacuation of refrigerants during recycling, recovering, reclaiming, or disposing in accordance with Title 40 C.F.R. § 82.156 (as amended November 18, 2016).

[ ]

#### NEW SECTION

**WAC 173-443-215 Reporting requirements for refrigerant wholesalers, distributors, and reclaimers.** (1) Refrigerant distributors or wholesalers.

(a) A refrigerant distributor or wholesaler that sells, supplies, or distributes any amount of high-GWP refrigerant in Washington for any purpose, other than those listed in (b) of this subsection, must submit an annual report to ecology in accordance with this subsection.

(b) This subsection does not apply to the sale, supply, or distribution of high-GWP refrigerants for the sole purpose of either:

(i) Selling to a refrigerant distributor or wholesaler for eventual resale; or

(ii) Providing to a person for reclamation or destruction.

(c) The annual report must be submitted by March 15, 2025, for the previous calendar year and must continue to be submitted by March 15th of each year thereafter for the previous calendar year.

(d) The annual report must cover all facilities in Washington under the operational control of the refrigerant distributor or wholesaler.

(e) The annual report must provide annual statewide aggregated data and must include all of the following information:

(i) Contact information:

(A) Name of refrigerant wholesaler or distributor facility;

(B) Facility identification number as it appears in the WA RMP data reporting system;

(C) Mailing address, including street address, city, state, and zip code;

(D) Name of contact person;

(E) Contact person's phone number and email address;

(F) Name of each distributor or wholesaler facility under operational control;

(G) Address of each distributor or wholesaler facility under operational control; and

(H) Contact person's name, phone number, and email address for each refrigerant distributor or wholesaler facility under operational control.

(ii) Refrigerant distribution information:

(A) Total statewide annual aggregated weight in pounds of each type of high-GWP refrigerant purchased or received for subsequent resale or delivery; and



(B) Total statewide annual aggregated weight in pounds of each type of high-GWP refrigerant sold or distributed to a facility in Washington.

(2) Refrigerant reclaimers.

(a) A certified refrigerant reclaimer that reclaims any high-GWP refrigerant in Washington must submit an annual report to ecology in accordance with this subsection;

(b) The annual report must be submitted by March 15, 2025, for the previous calendar year, and must continue to be submitted by March 15th of each year thereafter for the previous calendar year;

(c) The annual report must cover all facilities in Washington under the operational control of the certified refrigerant reclaimer;

(d) The annual report must provide annual statewide aggregate data and must include all of the following information:

(i) Contact information:

(A) Name of certified reclaimer facility;

(B) Facility identification number as it appears in the WA RMP data reporting system;

(C) Mailing address including street address, city, state, and zip code;

(D) Name of contact person;

(E) Email address of contact person;

(F) Name of each refrigerant reclaiming facility under operational control;

(G) Address of each refrigerant reclaiming facility under operational control; and

(H) Contact person's name, address, phone number, and email address for each reclaiming facility under operational control.

(ii) Refrigerant reclamation information:

(A) Total statewide annual aggregated weight in pounds of high-GWP refrigerant that was received by the certified reclaimer for reclamation or destruction;

(B) Total statewide annual aggregated weight in pounds of high-GWP refrigerant that was shipped out of Washington for reclamation; and

(C) Total statewide annual aggregated weight in pounds of high-GWP refrigerant that was shipped out of Washington for destruction.

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#### NEW SECTION

**WAC 173-443-225 Recordkeeping requirements for refrigerant wholesalers, distributors, and reclaimers.** (1) Beginning January 1, 2024, a refrigerant distributor, wholesaler, or reclaimer of a high-GWP refrigerant must keep all of the following records for a minimum of five years:

(a) Annual reports submitted pursuant to WAC 173-443-215;

(b) Invoices of all high-GWP refrigerant(s) received through sale or transfer and all high-GWP refrigerant distributed for sale or transfer. These invoices must include all of the following information:

(i) Name of the purchaser;

(ii) Date of sale or transfer;

(iii) Quantity sold or transferred; and

(iv) Type of high-GWP refrigerant(s) purchased, sold, or transferred.

(2) A refrigerant distributor or wholesaler selling a high-GWP refrigerant 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.

(3) The records identified in subsections (1) and (2) of this section must be kept at the facility of the refrigerant distributor or wholesaler and must be made available to an authorized representative of ecology's HFC program upon request.

[ ]

#### NEW SECTION

**WAC 173-443-235 Exemptions.** (1) The owner or operator of a facility that has a refrigeration or air conditioning system may apply to ecology for an exemption from the requirements of WAC 173-443-165 or 173-443-175. Ecology may grant an exemption if it determines the request meets the conditions identified in subsection (2) of this section and the applicant has complied with subsection (3) of this section.

(2) Types of exemptions.

(a) Impossibility. Ecology may grant an exemption if the applicant provides clear and convincing documentation that the requested exemption will not increase the overall risk to human health or the environment and that at least one of the following criteria is met:

(i) The component(s) or parts needed to complete a leak repair are not currently or potentially available; or

(ii) 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.

(b) Force majeure. Ecology may grant an exemption if the applicant provides clear and convincing documentation that the requested exemption will not increase the overall risk to human health or the environment and that all of the following criteria are met:

(i) The applicant cannot comply with the applicable requirements due to a force majeure event; and

(ii) The applicant has made a good faith effort to anticipate, address, and mitigate the impacts of any force majeure event.

(c) Economic hardship. Ecology may grant an exemption if the applicant provides clear and convincing documentation that the requested exemption will not increase the overall risk to human health or the environment and that all of the following criteria are met:

(i) The facility is a retail food facility or a small business, as defined in WAC 173-443-030;

(ii) 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

(iii) The applicant has made a good faith effort to anticipate, address, and mitigate any potential noncompliance.

(3) Application process.

(a) Applicant. 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.

(b) To apply for an exemption, the applicant must submit an application that meets the requirements of (b)(i) through (vii) of this subsection:

(i) Applicant contact information:

(A) Name of facility;

(B) Facility owner(s);

(C) Facility operator(s), if different than the owner;

(D) Type of business or business activity;

(E) Facility address, including street address, city, state, and zip code;

(F) Facility contact phone number and email address;

(ii) The specific requirement(s) for which an exemption is requested;

(iii) An explanation of the reasons for seeking an exemption;

(iv) Documentation that the criteria for one or more of the types of exemptions listed in subsection (2)(a) or (b) or (c) of this section is met;

(v) Length of time for which the exemption is requested and the earliest date when compliance can be achieved;

(vi) A description of the damage or harm that will result from having to comply with the applicable requirements within the required time frame; and

(vii) A proposed compliance plan describing how and when compliance with the applicable requirements will be achieved if the exemption is granted. The compliance plan must include all of the following:

(A) The method(s) by which compliance will be achieved;

(B) Milestone achievements;

(C) Milestone dates; and

(D) A proposed mitigation plan that demonstrates how the applicant will reduce greenhouse gas emissions while the exemption is in place. The mitigation plan must include all calculations used to determine emissions estimates.

(c) 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

(4) Approval and disapproval process.

(a) Ecology will determine whether the exemption application is complete and will notify the applicant of its completeness determination within 30 days of receipt of the application. Only complete applications will be considered.

(b) Within 60 days of determining that the application is complete, ecology will determine if and under what conditions the exemption will be permitted. The applicant and ecology may mutually agree to a longer time period for ecology's review and evaluation.

(c) During the review period, ecology may request, and the applicant must provide, more information, if necessary, to reach a decision.

(d) Ecology will notify the applicant of the decision in writing, and if approved, will specify the terms and conditions of the exemp-

tion 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.

(e) Ecology will grant an exemption only to the applicant who applied for the exemption. The exemption is not transferrable.

(f) Ecology will not approve an exemption retroactively prior to receipt of the application.

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

(5) Failure to comply with the terms of an approved exemption.

(a) The applicant must comply with the terms and conditions of an approved exemption to maintain its approved status.

(b) Ecology may revoke or modify an exemption approval if it determines the applicant no longer meets the criteria specified in the exemption approval letter.

(c) An applicant adversely affected by 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.

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#### NEW SECTION

**WAC 173-443-245 Enforcement.** (1) Any violation of this chapter is a violation of chapter 70A.15 RCW and subject to enforcement as provided in that chapter.

(2) In enforcing the requirements of this chapter, ecology will adhere to the provisions of chapter 43.05 RCW regarding site inspections, technical assistance visits, notices of correction, and the issuance of civil penalties, to the extent that these provisions are not in conflict with federal requirements described in RCW 43.05.901.

(3) Ecology may elect to refrain from or cease administering or enforcing a requirement of this chapter if EPA adopts requirements that:

(a) Are substantially duplicative of the requirements of this chapter and that negate the additional emission reduction benefits of state implementation of any requirement of this chapter; or

(b) Preempt state authority under this chapter.

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#### NEW SECTION

**WAC 173-443-255 Confidentiality.** (1) Information submitted to ecology under this chapter is a public record subject to the Washington Public Records Act (chapter 42.56 RCW).

(2) A person submitting information to ecology under this chapter who believes that the information is confidential business or proprietary information, or is otherwise exempt from public disclosure under the Washington Public Records Act (chapter 42.56 RCW), may request

ecology keep said information confidential pursuant to RCW 70A.15.2510.

(3) All requests for confidentiality must meet the requirements of RCW 70A.15.2510 and be approved by the director.

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#### NEW SECTION

**WAC 173-443-265 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.

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#### REPEALER

The following sections of the Washington Administrative Code are repealed:

WAC 173-443-070	Product labeling and disclosure requirements.
WAC 173-443-080	Manufacturer notification.
WAC 173-443-090	Initial notification.
WAC 173-443-100	Status update notification.
WAC 173-443-110	Severability.

#### **OTS-4619.2**

#### NEW SECTION

**WAC 173-455-160 Refrigerant management program fees.** (1) **Entities subject to fees.** Each owner or operator of a refrigeration system or an air conditioning system with a full charge greater than or equal to 200 pounds of a high GWP refrigerant, as defined in WAC 173-443-030, in a single refrigerant circuit is subject to fees under the refrigerant management program.

(2) **Types of fees.** Ecology will charge fees to cover the direct and indirect costs of administering and enforcing the refrigerant management program.

(a) Initial implementation fee. Ecology will charge a one-time fee of \$150 for each refrigeration or air conditioning system with a full refrigerant charge greater than or equal to 1,500 pounds.

(b) Annual implementation fee. Ecology will charge an annual implementation fee each year based on the refrigeration or air conditioning system's refrigerant charge size. For a facility with multiple refrigeration and/or air conditioning systems, the owner or operator

must pay an annual implementation fee for each system pursuant to (b)(i) and (ii) of this subsection.

(i) The annual implementation fee is \$370 for a refrigeration or air conditioning system with a refrigerant charge greater than or equal to 1,500 pounds.

(ii) The annual implementation fee is \$170 for a refrigeration or air conditioning system with a refrigerant charge greater than or equal to 200 pounds, but less than 1,500 pounds.

(3) All fees collected under this section will be deposited into the refrigerant emission management account in accordance with RCW 70A.60.050.

(4) **Fee modifications.** Ecology may adjust the amount of the annual implementation fees set forth in subsection (2)(b) of this section based on the sufficiency of funds generated by the program over the previous year, as needed to cover program costs for the following year. Before changing a fee, ecology will:

(a) Prepare a draft workload analysis and budget that reflects the anticipated cost of administering and enforcing the refrigerant management program over the coming year compared to the total fees collected under this section during the previous year;

(b) Post the draft workload analysis, budget, and proposed fee change on ecology's website by August 1st of the year before the calendar year in which the change will take effect;

(c) Provide a 30-day public comment period on the draft workload analysis, budget, and proposed fee change; and

(d) Post the final workload analysis, budget, and new annual implementation fee by December 1st of the year before the new fee takes effect.

(5) **Payment of fees.** Fees identified in this section must be paid within 30 calendar days of receipt of ecology's billing statement. All fees must be made payable to the Washington state department of ecology. Ecology may assess a late fee surcharge for any fee payment received after 60 calendar days past the due date.

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