

# WASHINGTON STATE REGULATIONS HFC REGULATIONS FROM WA DEPT. OF ECOLOGY

In November 2023, Washington State's Department of Ecology finalized new regulations necessary to meet emissions reductions under the state's Hydrofluorocarbons (HFC) – Emissions Reduction law. The new HFC refrigerant regulations affect both existing and new food retailing stores.



### **GWP<sup>†</sup> LIMITS IN EQUIPMENT STARTING JANUARY 1, 2025**

## OVERVIEW OF WA DEPT. OF ECOLOGY REGULATIONS

- Prohibit any refrigerant with a GWP<sub>100</sub> of more than 150 in new refrigeration equipment\* with more than 50 lbs. in new facilities, including retail locations and cold storage warehouses.
- Prohibit any refrigerant with a  $GWP_{100}$  of more than 150 as a retrofit into existing equipment with more than 50 lbs. starting January 1, 2029.

### **REFRIGERANT MANAGEMENT**

- Mandatory leak detection, registration, reporting
- Started in Jan. 2024 for systems with more than 1,500 lbs. of refrigerant
- \* "New refrigeration equipment" means any refrigeration equipment or system...that is one of the following:
  - (a) New construction in a new facility;
  - (b) An addition or modification that increases the nominal compressor capacity of a system in an existing facility;
  - (c) New construction in an existing facility not previously used for cold storage, retail food refrigeration, commercial refrigeration, industrial process refrigeration, or ice rinks; or (d) A system in an existing facility used for commercial refrigeration or industrial process refrigeration that is modified such that the system undergoes cumulative replacements of 75 percent or more of its evaporators (by number) and 100 percent of its compressor racks, condensers, and connected evaporator loads.

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### EXISTING FACILITIES - REFRIGERANT MANAGEMENT PROGRAM

Ecology has also created a refrigerant management program like California's. This includes the following parts:

- Registration and labeling
- · Leak detection and monitoring
- Leak repair requirements
- Retrofit or replacement plans for leaking equipment
- Annual reporting and recordkeeping requirements

The table at the bottom summarizes the registration, labeling and leak detection requirements.

Annual facility reports are due on March 15, each year following the year the facility is registered.

#### LEAK RATE THRESHOLDS

The owner/operator of a facility with a system that exceeds the 12-month rolling average leak rate thresholds in the table at right must notify Ecology by email at HFC@ecology.wa.gov within 30 days of determining the exceedance, followed by leak repair verification tests as required.

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

### GWP COMPARISON OF COMMON REFRIGERANTS

Refrigerant	EPA 100- Year GWP (AR4)	Safety Group
R-507A	3985	A1
R-404A	3922	A1
R-407A	2107	A1
R-410A	2088	A1
R-407F	1825	A1
R-449A	1397	A1
R-448A	1387	A1
R-513A	631	A1
R-454A	239	A2L
R-454C	148	A2L
R-471A	148	A1
R-290	3	A3
R-1234ze(E)	7	A2L
R-1234yf	4	A2L
R-744 (CO2)	1	A1

IENII) IISE	LEAK RATE THRESHOLD
Cold Storage Warehouse or Retail Food Refrigeration	16%
Industrial Process Refrigeration (IPR)	24%
Air Conditioning	8%

#### REFRIGERANT MANAGEMENT PROGRAM DETAILS

System Size (charge)	Leak Inspection Requirement	Start Date for Leak Inspection Requirement	Registration & Labeling Compliance Date	Annual Fee (per facility)
1500+ lbs.	Conduct leak inspection once per month (not required with automatic leak detection system)	Jan. 1, 2024		
1500+ lbs.	Must install automatic leak detection system by June 1st, 2025 (unless the refrigeration system will be replaced or retrofitted to a low-GWP refrigerant before January 1st, 2027)	Jan. 1, 2025	Jan. 1 – Mar. 15, 2024	\$370
200 - 1499 lbs.	Conduct leak inspection once every three months (not required with automatic leak detection system)	Jan. 1, 2026	Jan. 1 - Mar. 15, 2026	\$170
50 - 199 lbs.	Conduct leak inspection once every year (not required with automatic leak detection system)	Jan. 1, 2028	Jan. 1 - Mar. 15, 2028	None
Any size	Conduct system leak inspection each time refrigerant is added in amount of 5 lb. or 1% of full charge, whichever is greater	Same dates as above		

Link to Washington's HFC Rule Informational Guidebook: <a href="https://apps.ecology.wa.gov/publications/documents/2314025.pdf">https://apps.ecology.wa.gov/publications/documents/2314025.pdf</a>



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