



Proposed Emissions Reduction and Reclamation Program

FACT SHEET

Proposed Rule - Phasedown of Hydrofluorocarbons: Management of Certain Hydrofluorocarbons and Substitutes under Subsection (h) of the American Innovation and Manufacturing Act

The American Innovation and Manufacturing (AIM) Act was enacted on December 27, 2020. The AIM Act authorizes the U.S. Environmental Protection Agency (EPA) to address hydrofluorocarbons (HFCs) in three main ways: (1) phasing down their production and consumption, (2) promulgating certain regulations for purposes of maximizing reclamation and minimizing releases of HFCs from equipment and ensuring the safety of technicians and consumers, and (3) facilitating the transition to next-generation technologies through sector-based restrictions. This proposed rule focuses on the second area.

About HFCs

HFCs are potent greenhouse gases (GHGs) intentionally developed as replacements for ozone-depleting substances (ODS) in several sectors, including the refrigeration, air conditioning, and heat pump and fire suppression sectors. They have global warming potentials (GWPs; a measure of the relative climate impact of a GHG) that can be hundreds to thousands of times greater than that of carbon dioxide (CO₂).

This is the first proposed rule under subsection (h), “Management of Regulated Substances,” of the AIM Act. The primary goal of the proposed rule is to establish an Emissions Reduction and Reclamation Program that reduces emissions of climate-damaging HFCs from equipment such as air conditioner and refrigeration systems, and maximizes the amount of HFCs that can be reclaimed.

Other provisions of the AIM Act direct EPA to phase down the production and consumption of HFCs by 85% from historic baseline levels by 2036. The U.S. phasedown is consistent with the schedule in the Kigali Amendment to the Montreal Protocol, which is a global agreement to phase down HFCs that the United States joined on October 31, 2022. A global HFC phasedown is expected to avoid up to 0.5 degrees Celsius of global warming by 2100. Maximizing reclamation and minimizing releases of HFCs from equipment supports the domestic phasedown of HFCs.

What Does This Rule Propose?

In accordance with the AIM Act, EPA is proposing to promulgate certain regulations to control, where appropriate, any practices, processes, or activities regarding the servicing, repair, disposal, or installation of equipment that involves regulated substances or substitutes for a regulated substance. The proposed rule would establish an Emissions Reduction and Reclamation Program for the management of certain HFCs and their substitutes that would include certain provisions that apply to both new and existing equipment in certain sectors and subsectors.

EPA is not proposing any provisions that would require anyone to stop using their existing equipment. Consistent with subsection (h) of the AIM Act, EPA is proposing these regulations for the purposes of maximizing the reclaiming and minimizing the release of regulated substances from equipment and ensuring the safety of technicians and consumers.

Who May Be Affected by This Proposed Rule?

Companies that may be affected by this rule include those that own, operate, service, repair, recycle, dispose, or install equipment containing HFCs or their substitutes, as well as those that recover, recycle, or reclaim HFCs or their substitutes. Affected companies may also include those that manufacture or sell or otherwise distribute equipment containing HFCs and their substitutes.

How Can I Comment on This Proposed Rule?

EPA will accept comments on this proposal for 60 days after publication in the Federal Register and will hold a virtual public hearing on or about 15 days after publication in the Federal Register. For more information on the rule and how to comment, as well as information on the virtual public hearing, please visit the [Protecting Our Climate by Reducing Use of HFCs website](#).

What Are the Benefits of This Proposed Rule?

For informational purposes, EPA estimates that the proposed rule, if finalized as written, would result in significant GHG emissions reductions benefits while providing cost savings. In the years 2025 – 2050, the proposed provisions would prevent an estimated 142 million metric tons of carbon dioxide equivalent (MMTCO₂e) in HFC emissions beyond the expected benefits from the HFC Phasedown Program that went into effect in 2022. The present value of the net incremental benefits of this rule from 2025 – 2050 is estimated to be at least \$6.1 billion.

What Are Key Provisions of the Rule?

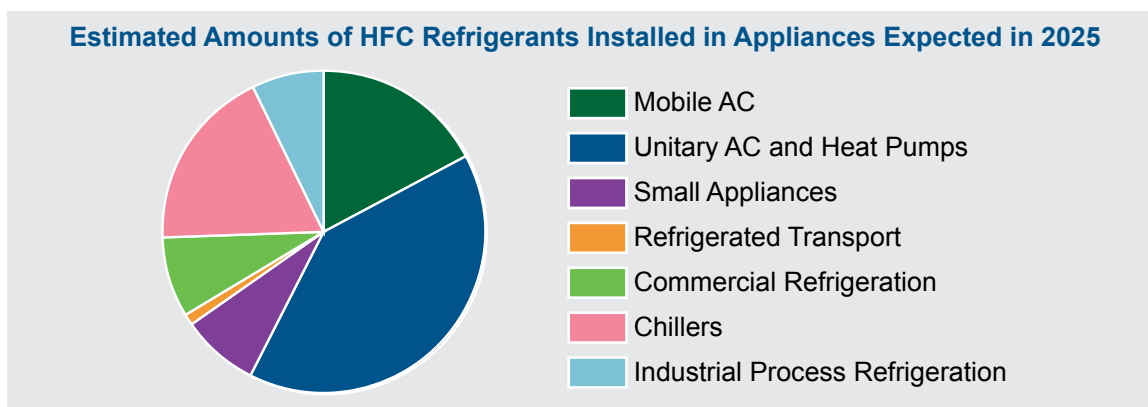
To implement the proposed Emissions Reduction and Reclamation Program for the management of HFCs and their substitutes, EPA is proposing:

- Leak repair provisions for certain appliances;
- Use of automatic leak detection for certain new and existing equipment;
- A proposed reclamation standard;
- Requirements for the use of reclaimed HFCs for certain types of equipment in certain refrigeration, AC, and heat pump (RACHP) subsectors;
- Requirements for the use of recycled HFCs in fire suppression equipment;
- Certain provisions for equipment in the fire suppression sector, including technician training;
- Recovery of HFCs from disposable cylinders, prior to disposal;
- Container tracking for HFCs that could be used in the servicing, repair, and/or installation of refrigerant-containing equipment or fire suppression equipment; and
- Recordkeeping, reporting, and labeling.

EPA is also proposing the following: alternative recycling criteria for ignitable used refrigerants, including some HFCs and their equivalents, under the authority of the Resource Conservation and Recovery Act.

Where Are HFCs Used?

In the United States, HFCs are primarily used in the RACHP sector in appliances used in homes, commercial buildings, industrial operations, refrigerated transport, motor vehicle air conditioning, and more. As of 2018, about 75% of total HFC use occurs in refrigeration and air conditioning equipment in homes, commercial buildings, and industrial operations. The figure below provides the estimated breakdown of HFCs, in metric tons, contained in various types of installed appliances in the RACHP sector expected in 2025. Unitary air conditioning (AC) and heat pumps (HP) is anticipated to have the greatest volume of HFCs in installed appliances in 2025. This includes appliances such as residential air conditioning systems.



What Other Actions is EPA Taking under the AIM Act?

EPA established a program phasing down HFC production and consumption by 85% from baseline levels by 2036 through an allowance allocation program. In July 2023, EPA finalized a rule under that program that establishes the methodology for allocating allowances to produce or consume HFCs beginning in 2024. Additionally, an EPA rulemaking under subsection (i) of the AIM Act, titled “Technology Transitions,” will implement sector-based transitions through restrictions on higher-GWP HFCs in aerosol, foams, and RACHP products and equipment. For more information on regulatory actions under the AIM Act, please visit the [Protecting Our Climate by Reducing Use of HFCs website](#).

Summary of Proposed Requirements and Effective Dates

Table 1: Leak Repair

Proposed Requirements	Proposed Effective Date
Leak repair of appliances containing 50 pounds or more of a refrigerant that contains an HFC or a substitute for an HFC with a GWP greater than 53	60 days after final rule is published
Leak repair of appliances containing between 15 and 50 pounds of a refrigerant that contains an HFC or a substitute for an HFC with a GWP greater than 53	One year after final rule is published

Table 2: Automatic Leak Detection (ALD) Systems

Proposed Requirements	Proposed Effective Date
Installation of ALD systems on commercial refrigeration and Industrial Process Refrigeration appliances installed prior to effective date of the final rule with a charge size of 1,500 lbs or more	Within one year after the date of final rule publication
Installation of ALD systems on commercial refrigeration and Industrial Process Refrigeration appliances installed on or after the effective date the final rule with a charge size of 1,500 lbs or more	Within 30 days of appliance installation

Table 3: Use of Reclaimed HFCs for RACHP

Proposed Requirements	Proposed Effective Date
Use of reclaimed HFCs for initial charge (installation) of certain RACHP equipment: <ul style="list-style-type: none"> • residential and light commercial AC and heat pumps • cold storage warehouses • industrial process refrigeration • stand-alone retail food refrigeration • supermarket systems • refrigerated transport • automatic commercial ice makers 	January 1, 2028
Use of reclaimed HFCs for servicing and/or repair of certain RACHP equipment: <ul style="list-style-type: none"> • stand-alone retail food refrigeration • supermarket systems • refrigerated transport • automatic commercial ice makers 	January 1, 2028

Table 4: Equipment in Fire Suppression Sector

Proposed Requirements	Proposed Effective Date
Use of recycled HFCs for the initial charge of fire suppression equipment, including both total flooding systems and streaming applications	January 1, 2025
Use of recycled HFCs for the servicing and/or repair of fire suppression equipment, including both total flooding systems and streaming applications	January 1, 2025
One-time, required training for fire suppression technicians	January 1, 2025
Reporting of certain HFC data by entities subject to the rule	Report annually by February 14 of each year

Table 5: Refrigerant Removal from Disposable Cylinders

Proposed Requirements	Proposed Effective Date
Send disposable cylinders to either a reclaimer certified under Clean Air Act section 608 or a fire suppressant recycler for its remaining contents to be removed	January 1, 2025
A reclaimer certified under Clean Air Act section 608 or a fire suppressant recycler who receives a disposable cylinder must remove all remaining contents from the disposable cylinder prior to disposal	January 1, 2025

Table 6: Container Tracking Registration

Proposed Tracking System	Proposed Effective Date
Any person who produces, imports, reclaims, recycles for fire suppression uses, repackages, or fills into a container regulated substances must register in the tracking system to generate machine-readable tracking identifiers	No later than the first time required to generate a machine-readable tracking identifier
Any person who purchases, sells, distributes, or offers for sale or distribution, regulated substances that could be used in the servicing, repair, or installation of refrigerant-containing equipment or fire suppression equipment must register with EPA	No later than the first time required to update tracking information in the system

Table 7: Container Tracking Requirements

Proposed Requirements	Proposed Effective Date
Producers and importers: Require tracking on all containers of HFCs that could be used in servicing, repair, or installation of refrigerant-containing equipment or fire suppression equipment that are imported, sold, or distributed or offered for sale or distribution by producers and importers	January 1, 2025
Repackagers: Require tracking on all containers of HFCs that could be used in servicing, repair, or installation of refrigerant-containing equipment or fire suppression equipment that are filled, sold or distributed, or offered for sale or distribution, by all other repackagers and cylinder fillers in the United States, including reclaimers and fire suppressant recyclers	January 1, 2026
Producers, importers and repackagers: Require tracking on every container of HFCs that could be used in servicing, repair, or installation of refrigerant-containing equipment or fire suppression equipment that are sold or distributed, offered for sale or distribution, purchased or received, or attempted to be purchased or received	January 1, 2027



Additional Resources

Protecting Our Climate by Reducing Use of HFCs:
www.epa.gov/climate-hfcs-reduction

EPA Certified Reclaimers:
www.epa.gov/section608/epa-certified-refrigerant-reclaimers

Contact EPA: spdcomment@epa.gov

