

Climate Friendly Refrigerant Policy and Specifications

These policy measures and procurement specifications will bring you into compliance with U.S. federal requirements and in parts that are noted, go above and beyond. Additional requirements may vary on a state-by-state basis. Please review your state's guidelines and [HFC prohibitions by state and product category](#). Other additions to this policy should be considered depending on organization type, such as U.S. and International refrigerant regulations pertinent to food retailers (which can be found summarized by the Ratio Institute in September 2021 here: "[A Practical Guide to Refrigerant Regulations for Food Retailers](#)").

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I. Policy Preamble

- A. In order to comply with the Environmental Protection Agency (EPA) phase down of the production and consumption of HFCs under the [American Innovation and Manufacturing Act](#) (AIM Act) and Clean Air Act: [Organization] shall pursue actions to limit the purchase of equipment containing HFCs (hydrofluorocarbons) and HFC blends with high global warming potentials (GWPs) and seek out reclaimed refrigerant to service existing equipment whenever possible. These actions shall enable [Organization] to mitigate increased risks attributed with climate change that impact human and environmental health
- B. Where opportunities exist, [Organization] shall pursue complementary energy efficiency measures to maximize the environmental benefits by prioritizing the purchase of equipment certified by ENERGY STAR.
- C. In addition, [Organization] shall pursue actions to manage refrigerants and reduce fugitive emissions by adhering to the measures outlined in the “policy measures and specifications” section of this policy.

II. What and Who this Policy Applies To

- A. As of [effective date], this policy shall apply to all refrigeration, air conditioning, and heat pump (RACHP) products and equipment (P&E) and RACHP P&E installation, servicing (maintenance, repair), end of life, inventorying, tracking, and reporting. The policy applies to RACHP P&E that function as the following end-use categories: Self-contained Refrigeration, Air Conditioning, and Heat Pumps; Residential dehumidifiers; Household/residential/break room and laboratory refrigerators and freezers; compact refrigerators and freezers (i.e., in hotels and dormitories); lab-grade refrigerators and freezers; vending machines; water Coolers (e.g., office coolers); industrial process refrigeration (not using chillers); stand-alone type commercial refrigerators and freezers; retail food refrigeration standalone units, supermarkets, remote condensing units, remote refrigerated food processing and dispensing equipment; refrigerated food processing and dispensing equipment; self-contained automatic commercial ice machines; refrigerated transport; remote automatic commercial ice machines; cold storage warehouses; motor vehicle air conditioning; chillers; data centers, computer room, air conditioning, and information technology equipment cooling; stationary air conditioning and heat pumps (including variable refrigerant flow systems); ice rinks; self-contained residential and commercial AC units – AC units for rooms, packaged terminal AC units, portable AC units, unitary AC Systems (e.g., residential split systems)
- B. The policy applies to [the organization] and all vendors that provide service and equipment on behalf of the organization. All proposals, bids, contracts, service agreements, etc. that solicit goods or services that would be managed by this policy must contain all relevant parts of this policy in the specifications (examples: when procuring new equipment, the “Purchase of Refrigerant and New Equipment” section must be included in the bid solicitation; when hiring services, the “Installation; Preventative Maintenance, Service, and Repair for New and Existing Equipment; End-of-Life Management” must be supplied to service providers; Adherence to all of the measures under “Purchase of Refrigerant and New Equipment” must be incorporated into the initial design for new or expanding facilities; new contracts must include the measures under “Refrigerant inventorying, tracking, and reporting” and existing contracts should attempt to be amended to include those measures). If the organization oversees tenants, all tenant agreements henceforth must contain applicable parts of the policy (for example, tenants agree to utilize qualifying products and report required information). This policy applies to new and existing RACHP P&E, including new equipment and systems being designed and purchased for new construction, whether designed and purchased by the organization or a vendor.
- C. Parties responsible for implementing this policy include: anyone who procures/purchases RACHP P&E; those who perform the following services (such as facility services teams) or hires or contracts for the following services: installation, maintenance, service, repair, destruction, recycling, and removal of RACHP P&E; new or expanding facilities project teams (architect and engineering teams); and sustainability reporting teams.
- D. All parts of this policy, except those marked by an asterisk, should be used as procurement specifications, contract language, Request for Bid or Request for Proposal language, or otherwise supplied to vendors doing service for or providing goods to [the organization]. Sections marked with an asterisk are policy for [the organization] vs procurement specifications, but can be used in procurement specifications if appropriate. Similarly, the parts of the policy that would need to be reworded to apply to a vendor rather than the organization itself, or where the organization’s name would need to be inserted, are signified through brackets. For example, to take the language for a Request for Bid, choose “Provide” instead of “Procure” in a bracket that says “procure/provide” as a vendor would need to provide that service or product, while it is up to [the organization] to procure it (hence the bracket choice of words).

III. Policy Measures + Procurement Specifications:

A. Purchase of Refrigerant and New Equipment

1. [Procure/Provide] P&E that abides by the low global warming potential (GWP) limits by certain dates imposed by the EPA's final Technology Transitions rules published in October 2023 ([summary](#); [final rule](#)). [Procure/provide] products with a lowest GWP to the maximum extent practicable where such products are cost-effective (using life cycle-climate performance (LCCP) – see below) and meet form, function, and utility requirements.
2. Where low-GWP options are not yet available, [procure/provide] reclaimed refrigerant, which is existing refrigerant that has been recovered from equipment at end-of-life and then purified before being reused in new equipment. Reclaimed refrigerant must be from an [EPA-certified refrigerant reclaimer](#). For information specific to alternatives used for retrofitting systems, contact the equipment manufacturer.
3. In addition to compliance with the AIM act, selection of refrigerants and their systems must be based on a holistic analysis including energy efficiency and performance attributes, environmental impacts, employee and public safety, and economic considerations. For decisions concerning larger systems that require HFCs, engineers, facilities managers, and others with the appropriate training must be involved in the decision of what equipment to purchase. The following criteria must be applied to the selection of refrigeration and air conditioning equipment and will be used to assess bids for products:
 - a) Optimal charge size and capacity for the intended operation.
 - b) Technical Performance, including cooling capacity (measured in TONs, BTUs, etc.), energy efficiency (measured as Energy Efficiency Ratio (EER), Coefficient of Performance (COP), Seasonal Energy Efficiency Rating (SEER), etc.), and reliability (lubricant and materials compatibility, duty cycles);
 - c) Life Cycle Climate Performance (LCCP) or Life Cycle Carbon Footprint (LCCP): Measure, on a carbon-equivalent basis over the lifecycle of the product, direct greenhouse gas refrigerant emissions, indirect fossil fuel or biomass emissions for electricity consumption, and if possible, embodied emissions from manufacture, transport, and recycle at end of product life.
 - d) Life Cycle Financial Ownership Cost: Calculate the cost of purchase, transport, installation, maintenance, operation, and retirement (recycle of material, recovery and reuse or destruction of ozone-depleting or GHG refrigerants).
 - e) The ability of the equipment to be serviced and recharged by existing or new contracts for service and the purchase of refrigerants
4. [Quotes/receipts] for new equipment containing refrigerant and refrigerant must include refrigerant type, quantity, reclaimed status, and GWP information in order to evaluate them for compliance with this policy and EPA Technology Transitions compliance.

B. Installation; Preventative Maintenance, Service, and Repair for New and Existing Equipment; End-of-Life Management

1. **Technician certification:** Under EPA regulations in [40 CFR Part 82, Subpart F](#), technicians who maintain, service, or repair equipment that may release refrigerants must possess [608 Technician Certification](#). Technicians disposing of a motor vehicle air conditioning (MVAC) system must possess the [Section 609 Technician Certification](#). All service professionals must provide a copy of their Section 608 or 609 certification that the organization will keep on file. Technicians who install air conditioning equipment must follow original equipment manufacturer instructions, industry-wide best practices, and when applicable, the [Quality Installation standards issued by the Air Conditioning Contractors of America](#).
2. **Reclaimed usage:** Servicing and/or repair of certain RACHP equipment with reclaimed HFCs is required for supermarket systems, refrigerated transport, and automatic commercial ice makers by January 1, 2029 to achieve the Federal minimum requirements for reclaimed refrigerant use ([pursuant to the AIM act final rule](#)). To exceed the federal minimum, [Organization and vendors] shall use reclaimed refrigerant to service existing equipment and provide proof of purchase from a certified reclaimer (or one of their distributors), as [listed on the Environmental Protection Agency's list of certified refrigerant reclaimers](#).

3. **Leak Detection and Repair:** [Technicians/vendors] must follow best practices for all preventative maintenance checks, servicing, repairs, and leak prevention for commercial refrigeration systems (if applicable). Best practices are defined in US EPA's GreenChill [Refrigerant Leak Prevention through Regular Maintenance](#) and [Commercial Refrigeration Leak Prevention & Repair](#). [Technicians/vendors] shall perform regular leak prevention checks at a schedule appropriate for the equipment end-use and determined by the [Organization] or as required by law. [The AIM Act Final Rule](#) sets applicable appliances and leak rate thresholds that the organization must comply with by January 1, 2026: Refrigerant-containing appliances with a full charge of 15 pounds or more of a refrigerant that contains an HFC or a substitute for an HFC with a GWP greater than 53 must repair leaks to bring leak rate below applicable threshold. Leak rate thresholds are: Industrial process refrigerant (IPR) 30% (which includes industrial ice machines, appliances used directly in the generation of electricity, and ice rinks); Commercial refrigeration 20%; Comfort cooling, refrigerated transport, and other appliances not covered: 10%. See regulatory text at 40 CFR 84.106 for further information on definitions, leak repair requirements, including applicable leak rates, the timeline for leak repair, and associated recordkeeping and reporting. Appliances in the residential and light commercial air conditioning and heat pumps sector are not included in these provisions. Categories of refrigerant-containing appliances related to the applicable leak thresholds are defined at 40 CFR 84.102.
4. **Automatic Leak Detection:** In accordance with AIM act 40 CFR 84.108 (which should be referenced for full requirements), installation and use of Automatic Leak Detection (ALD) systems is required starting January 1, 2026 (within 30 days of installation) for new commercial and industrial process refrigeration appliances installed with a full charge size of 1,500 pounds or more that contain an HFC or a substitute for an HFC with a GWP above 53. Installation and use of ALD systems is required for existing commercial and industrial process refrigeration appliances installed on or after January 1, 2017, and before January 1, 2026, with a full charge size of 1,500 pounds or more that contain an HFC or a substitute for an HFC with a GWP above 53; January 1, 2027.
5. **Recovery:** [Under Section 608 of the Clean Air Act and the implementing regulations at 40 Code of Federal Regulations \(CFR\) Part 82 Subpart F](#), intentionally venting [ozone-depleting substances \(ODS\)](#) or their [substitutes](#) refrigerant is prohibited. R-600A (isobutane), R-441A (a blend of ethane, propane, n-butane and isobutane) in household refrigerators, freezers, and combination refrigerators and freezers, and R-290 (propane) in retail food refrigerators and freezers (stand-alone units only) are exempt from the venting prohibition. See other very few exemptions that exist in 40 CFR 82.154(a). Refrigerant must be recovered during service and, pursuant to 40 CFR 82.155, at equipment end-of-life. All refrigerants must be recovered and reclaimed using certified refrigerant reclaimers, as listed on the [Environmental Protection Agency's list of certified refrigerant reclaimers](#) and defined in 40 CFR 82.164, or properly destroyed using approved destruction methods (see 40 CFR 82(a)) and in accordance with applicable state and local regulations. For small appliances (e.g., refrigerators, window AC units) refrigerants can be recovered by a technician, appliance recycling facility, or through the vendor supplying the replacement appliance. In some instances, the intentional discharge of flammable refrigerants during appliance disposal may be subject to hazardous waste or other regulations.
6. **Disposal:** [Vendor/organization technician] removing old appliances must properly dispose of them by using a Partner in the [US EPA's Responsible Appliance Disposal program](#) (RAD). Small appliances must be disposed of through the Responsible Appliance Disposal (RAD) program as well. Vendors shall implement best practices for the recycling/disposal of the collected refrigerant appliances (as required to be stated in procurement solicitations to comply with the RAD program: [Example Language for Procuring Refrigerated Appliance Recycling Services Using Best Environmental Practices](#)). Recycling facilities servicing RAD partners can be found [here](#). If no RAD Partners are available locally, [Vendor/organization technician] is encouraged to become a Partner or an Affiliate (as appropriate) in the EPA's RAD program.

C. Refrigerant inventorying, tracking, and reporting:

1. All contractors and technicians, including those hired as service vendors, must track and report on the types and quantities of refrigerants, including HFCs and HFC blends, added or removed during routine installation, maintenance, service, repair, and disposal of all equipment, appliances, and supplies. High-GWP refrigerants may have stricter reporting requirements than low-GWP refrigerants.
2. All currently possessed refrigerants and equipment containing refrigerants owned by and operated on site by [the organization/the tenant/the contracted service provider] must be inventoried.
3. All new purchases of refrigerant and refrigerant-containing equipment may use a separate account code or otherwise have to be separately tracked and purchasing records maintained. This applies to direct purchases including by all departments, purchases made by a vendor for the organization, and purchases made by tenants.
4. Inventories, reports, and logs required above must contain at least the type and quantity of refrigerant and reclaimed status (or the nameplate pre-charged type and capacity on equipment containing refrigerant) and the date of purchase or service. [The organization] reserves the right to supply a specific reporting template that must be used. The inventory must be shared with a person or unit identified by the main responsible party for this policy or the person at the organization in charge of EPA reporting compliance.
5. All other EPA required record-keeping requirements must be followed, per [40 CFR 82.157\(l\)](#).