

# EPA's Refrigerant Management Requirements

## What Supermarkets and Property and Facility Managers Need to Know



### What is Section 608?

Section 608 of the Clean Air Act prohibits the knowing release of refrigerant during the maintenance, service, repair, or disposal of air-conditioning (AC) and refrigeration equipment. EPA requires proper refrigerant management practices by those who buy or sell refrigerant, technicians, owners and operators of AC and refrigeration systems, and others. These requirements apply for all refrigerants that contain ozone-depleting substances, e.g., hydrochlorofluorocarbons (HCFCs), and non-exempt substitute refrigerants, e.g., hydrofluorocarbons (HFCs), hydrofluoroolefins (HFOs) and blends thereof.

Some refrigerants are exempt from the refrigerant management requirements. Examples include carbon dioxide, nitrogen, and water. For a full list of exempt refrigerants, see 40 CFR § 82.154(a).

### What are the Section 608 refrigerant management requirements for supermarkets and property and facility managers?<sup>1</sup>

This fact sheet summarizes the leak repair requirements. These provisions recently changed as a result of EPA's 2020 update.

The leak repair regulations apply to industrial process refrigeration (IPR), commercial refrigeration, and comfort cooling and other appliances containing 50 pounds or more of an ozone-depleting refrigerant. These regulations do not apply to appliances containing solely substitute refrigerant such as HFCs.

### Leak Rate Calculations

Owners/operators must calculate the leak rate every time ozone-depleting refrigerant is added to an appliance, unless the addition is made immediately following a retrofit, installation of a new appliance, or qualifies as a seasonal variance.

### Appliance Repairs

- Owners/operators must identify and repair leaks that exceed 30% for IPR, 20% for commercial refrigeration, and 10% for comfort cooling and other appliances within 30 days of when the ozone-depleting refrigerant is added. Leaks must be repaired such that the leak rate is brought below the applicable leak rate.
- Owners/operators must perform and document both an initial and follow-up verification test of leak repairs for appliances that exceed the applicable leak rate.
  - An **initial verification test** must be performed before any additional refrigerant is added to the appliance.
  - A **follow-up verification test** must be performed only after the appliance has returned to normal operating characteristics and conditions. There is no minimum timeframe.

<sup>1</sup> This fact sheet highlights select provisions that may be of most interest to this community. Please see the regulations at <https://go.usa.gov/xpKhq> for the full requirements.

- The verification tests must demonstrate that leaks were successfully repaired. If either the initial or follow-up verification test indicates that repairs were not successful, owners/operators may conduct as many additional repairs and verification tests as needed within the 30 day repair period.
- Owners/operators of IPR, commercial refrigeration, and comfort cooling equipment may request limited extensions to the 30 day repair deadline (120 days if an industrial process shutdown is required).
- If owners/operators fail to bring the leak rate below the threshold leak rate, owners/operators must create and implement a retrofit or retirement plan.

## Leak Inspections

- Owners/operators must conduct leak inspections for appliances that have exceeded the applicable leak rate, according to the schedule in Table 1. Leak inspections must be conducted by a Section 608-certified technician. All visible and accessible components of an appliance must be inspected.

Table 1: Leak Inspection Requirements

Equipment	Full Charge	Frequency of Leak Inspections
<b>Commercial Refrigeration and Industrial Process Refrigeration</b>	> 500 pounds	<i>Once every three months</i> until the owner/operator can demonstrate through leak rate calculations that the leak rate has not exceeded 20% (commercial refrigeration) or 30% (IPR) for four quarters in a row.
	50 to 500 pounds	<i>Once per calendar year</i> until the owner/operator can demonstrate through the leak rate calculations that the leak rate has not exceeded 20% (commercial refrigeration) or 30% (IPR) for one year.
<b>Comfort Cooling</b>	50 or more pounds	<i>Once per calendar year</i> until the owner/operator can demonstrate through the leak rate calculations that the leak rate has not exceeded 10% for one year.

- Quarterly or annual leak inspections are not required on appliances (or portions of appliances) that are continuously monitored by an automatic leak detection system that is audited and calibrated annually.

## Retrofit or Retirement Plans

- Owners/operators must create a retrofit or retirement plan within 30 days<sup>2</sup> of an appliance leaking ozone-depleting refrigerant above the applicable leak rate if:
  - The owner/operator intends to retrofit or retire rather than repair the leak; or
  - The owner/operator fails to identify and repair the leak; or
  - The appliance continues to leak above the applicable leak rate after required repairs and verification tests.
- Retrofit or retirement plans must contain: identification and location of the appliance; type and full charge of the refrigerant in use; type and full charge of the new refrigerant (if retrofitting); itemized procedure for converting the appliance to a different refrigerant, including changes required for compatibility with the new refrigerant (if retrofitting); plan for disposition of recovered refrigerant; plan for disposition of the appliance (if retiring); and a schedule for completion within one year.
- The retrofit or retirement must be completed within one year of the plan's date unless granted extra time.
- Owners/operators must repair all identified leaks as part of any retrofit.

<sup>2</sup> Some extensions may be available, particularly for IPR.

- Owners/operators may request relief from the obligation to retrofit or retire an appliance if they can establish within 180 days of the plan's date that the appliance no longer exceeds the applicable leak rate and agrees in writing to repair all identified leaks within one year of the plan's date.

### Chronically Leaking Appliances

- Owners/operators must submit reports to EPA if any appliance leaks 125% or more of its full charge in one calendar year. This report must describe efforts to identify leaks and repair the appliance.

### Recordkeeping and Reporting Requirements

Owners/operators must maintain hard or electronic copies<sup>3</sup> of:

- Records documenting the full charge of appliances.
- Records, such as invoices, showing when service or maintenance is performed, when refrigerant is added to an appliance (or removed, in the case of disposal), when a leak inspection is performed, and when a verification test is conducted.
- If using an automatic leak detection system, documentation that the system is installed and calibrated annually and records of when the monitoring system identifies a leak and the location of the leak.
- Retrofit and/or retirement plans.
- Requests submitted to EPA to extend the repair or retrofit deadlines.
- If a system is mothballed to suspend a deadline, maintain records documenting when the system was mothballed and when it was brought back on-line (i.e., when refrigerant was added back into the appliance).
- Records to demonstrate a seasonal variance.
- Reports on appliances that leak 125% or more of the full charge in a calendar year.

#### Reporting to EPA

All notifications should be submitted electronically to [608reports@epa.gov](mailto:608reports@epa.gov).

If the notification contains confidential business information, the information should be submitted in hard copy:

via U.S. Postal Service:

Section 608 Program Manager  
Stratospheric Protection Division  
Mail Code: 6205T  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, N.W.  
Washington, DC 20460

via courier: Please contact EPA at [608reports@epa.gov](mailto:608reports@epa.gov) to arrange for receipt.

### Additional Resources

Updates to the Refrigerant Management Requirements:

[www.epa.gov/section608/revised-section-608-refrigerant-management-regulations](http://www.epa.gov/section608/revised-section-608-refrigerant-management-regulations)

EPA's Section 608 Webpage: [www.epa.gov/section608](http://www.epa.gov/section608)

EPA's Section 608 Leak Repair Webpage: [www.epa.gov/section608/stationary-refrigeration-leak-repair-requirements](http://www.epa.gov/section608/stationary-refrigeration-leak-repair-requirements)

EPA's GreenChill Partnership: [www.epa.gov/greenchill](http://www.epa.gov/greenchill)

Contact EPA: [www.epa.gov/section608/forms/contact-us-about-stationary-refrigeration-and-air-conditioning](http://www.epa.gov/section608/forms/contact-us-about-stationary-refrigeration-and-air-conditioning)

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<sup>3</sup> EPA encourages electronic recordkeeping.