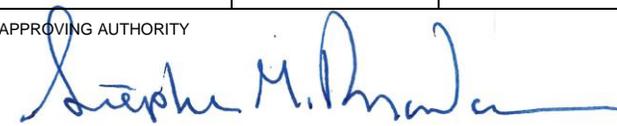


 Corrections and Community Supervision DIRECTIVE	TITLE Refrigerants-Compliance with the Clean Air Act		NO. 3056
			DATE 08/05/2020
SUPERSEDES DIR# 3056 Dtd. 01/23/18	DISTRIBUTION A	PAGES PAGE 1 OF 8	DATE LAST REVISED
REFERENCES (Include but are not limited to) EPA Clean Air Act; 40 CFR Part 82; OMB No. 2060-0256; See Section VIII	APPROVING AUTHORITY 		

I. **PURPOSE:** This directive sets forth the Department’s plans and procedures for following the applicable provisions of Sections 608 and 609 of the Clean Air Act, including the 2016 revised Section 608 Refrigeration Management Regulations, and the related rules of the Environmental Protection Agency (EPA) published in 40 CFR Part 82 – “Protection of Stratospheric Ozone.” A copy of the EPA document, “Complying with the Section 608 Refrigerant Recycling Rule,” is available from the [EPA](#) or the Division of Facilities Planning and Development.

II. **POLICY:** It is the policy of the Department that each facility shall develop and maintain an accurate and current refrigerant program regardless of who actually performs the service (e.g., in house staff or outside contractor). The program shall, at a minimum, consist of the maintenance of the record keeping items outlined in Section VI of this directive.

All Department staff who purchase, maintain, service, or dispose of refrigerants or air conditioning and refrigeration equipment shall comply with all applicable Federal Regulations. This policy covers any class I (CFC) and class II (HCFC) used as a refrigerant, as well as any substitute refrigerants (such as HFCs).

NOTE: No person installing, maintaining, repairing, or disposing of any appliance may knowingly vent or otherwise release into the environment any class I (CFC) or class II (HCFC) substance used as a refrigerant and their substitutes (such as HFCs). Venting is punishable by fine of up to \$37,500.

III. **CERTIFICATIONS**

A. **Technicians:** All mechanics and maintenance personnel who service or repair equipment using refrigerants shall have passed an EPA-approved certification test for the appropriate refrigerated appliance being maintained.

NOTE: Activities reasonably expected to violate the integrity of the refrigerant circuit include, but are not limited to, attaching or detaching hoses and gauges to and from the appliance, adding or removing refrigerant, adding or removing components, and cutting the refrigerant line. Activities such as painting the appliance, rewiring an external electrical circuit, replacing insulation on a length of pipe, or tightening nuts and bolts are not reasonably expected to violate the integrity of the refrigerant circuit.

B. **Equipment:** All refrigerant recovery equipment must be certified for the type of appliance being serviced by an EPA-approved third party testing organization. If recovery equipment is altered it must be resubmitted for certification and will be considered uncertified until the new certification has been received. Obtain a copy of and use the “EPA Refrigerant Recovery or Recycling Device Acquisition Certification Form” (OMB No. 2060-0256) for certifying new or refurbished equipment. The form is available from the [EPA](#) or the Division of Facilities Planning and Development.

IV. SERVICE PRACTICES

- A. Small Appliance: Any device which contains and uses a Class I (chlorofluorocarbon; CFC), Class II (hydrofluorocarbon; HCFC) substance or substitute (e.g., hydrofluorocarbon; HFC) as a refrigerant and which is used for household or commercial purposes, including any air conditioner, motor vehicle air conditioner, refrigerator, chiller, or freezer. For a system with multiple circuits, each independent circuit is considered a separate appliance. The EPA interprets this definition to include all air-conditioning and refrigeration equipment except those designed and used exclusively for military purposes.
- B. Motor Vehicle Air Conditioner (MVAC)-like appliance: Mechanical vapor compression, open-drive compressor appliances used to cool the driver's or passenger's compartment of an off-road vehicle, including agricultural and construction vehicles. This definition excludes appliances using HCFC-22 (also called R-22).
- C. Refrigerant Recovery
1. Prior to major repairs on air conditioning or refrigeration equipment, the refrigerant must be evacuated and recovered to the levels specified in EPA regulations. Major repairs include those involving removal of the compressor, condenser, evaporator, or auxiliary heat exchanger coil.
 2. Technicians repairing small appliances such as household refrigerators, household freezers, and water coolers are required to recover 80% (if compressor not running) or 90% (if compressor is running) of the refrigerant in the system.
- D. Recycling: Recovered refrigerant can be returned to the same system or to other systems owned by the Department.
- E. Refrigerant Leaks: All leaks for appliances containing ≥ 50 pounds of refrigerant, must be documented and repaired according to the applicable Federal Requirements as provided in 40 CFR Part 82.156. An initial verification test must be performed and documented (see Section VI below) after repairs but before any additional refrigerant is added to the unit or system. A follow-up verification test must be performed and documented (see Section VI below) after the unit or system has returned to normal operating characteristics and conditions. All repairs and tests must be completed within the 30-day repair period; limited extensions to this 30-day repair deadline can be requested of the EPA.
- F. Monitoring: Quarterly or annual leak inspections, or continuous monitoring devices, are required for refrigeration and air-conditioning equipment that have exceeded the threshold leak rate. Inspections shall be documented as per Section VI below (see Attachment B, "Leak Inspection Requirements," table).
- G. Reporting: A report will be submitted to the EPA if a system containing ≥ 50 pounds of refrigerant leaks 125% or more of its full charge in one calendar year (see Section VII below).
- H. Leak Rate Calculations: The leak rate must be calculated every time a refrigerant is added to an appliance containing ≥ 50 pounds of refrigerant, unless the addition is made immediately following a retrofit, installation of a new appliance, or qualifies as seasonal variance.

- I. **Retrofit and Retirement Plans:** A retrofit, or retirement plan shall be created within 30-days (subject to any EPA extensions) for an appliance leaking refrigerant above the applicable leak rate if:
 1. The equipment will be retrofitted or retired rather than the leak repaired;
 2. The leak cannot be identified and repaired within the 30-day time limit (subject to any EPA extensions); or
 3. The appliance continues to leak above the applicable leak rate after required repairs and verification tests.
- V. **DISPOSAL:** Equipment that is typically dismantled onsite before disposal must have its refrigerant removed and recovered to the specifications established for servicing. Other equipment that enters the waste stream intact may have its refrigerant recovered prior to disposal or by the final person in the disposal chain. Because of the increasing scarcity and cost of refrigerants for existing equipment, it shall be Department policy to recover refrigerants, when feasible, even from small and household-type appliances. If a Department technician recovers the refrigerant, he or she must provide documentation of removal for the final disposer (see Section VI below).
- VI. **RECORD KEEPING:** The records described below are required to be kept by each facility for a minimum of three years. The MP2 system is to be utilized for all records.
 - A. **Service Records:** Records of all maintenance, service, repair or disposal of appliances, whether performed by facility staff or an outside contractor, shall be maintained by the facility on the MP2 system and shall include the following:
 1. Type of equipment serviced;
 2. The procedure performed;
 3. Date of service;
 4. Location of the equipment;
 5. Weight and type of refrigerant removed from the system;
 6. Weight and type of refrigerant charged into the system; and
 7. Verification of test results that leaking equipment has been successfully repaired (is only applicable for appliances containing ≥ 50 pounds of refrigerant).
 - B. **Refrigerant Use:** Each facility shall keep a record of the amount and type of refrigerant purchased and consumed each month (see [Form #3056A](#), "Monthly Refrigerant Inventory and Usage Form," and [Form #3056B](#), "Monthly Refrigerant Usage Log Worksheet").
 - C. **Technician Certification:** Each facility shall keep copies of the certification documents for each of its employees who are certified.
 - D. **Equipment Certification:** Each facility shall create and maintain a certification statement for each piece of recovery or recycling equipment it owns. The certification statement shall include:
 1. The name and address of the facility;
 2. The location of the equipment;
 3. The manufacturer name and model number;
 4. The date of manufacture and the serial number;
 5. A statement that the equipment will be properly used;

6. A statement that each individual authorized to perform service is trained and certified; and
7. A statement that the information is true and correct.
- E. Equipment Inventory: Each facility shall create and maintain an inventory of all equipment which uses refrigerants to include the following items:
1. Type of equipment;
 2. Make, model, and serial number; and
 3. Type and weight of refrigerant used.
- F. Disposer Record: Facilities disposing of small appliances (containing between 5 and 50 pounds of refrigerant) from which refrigerant has been removed must maintain copies of signed statements from the technicians performing the recoveries. The statements should include date of recovery, and the name, address, and signature of the technician. A copy of such statement shall accompany each small appliance from which refrigerant has been removed when it is delivered to a disposer (landfill, recycler, etc.). Additional recordkeeping requirements for small appliances:
1. Company name, location of the appliance, date of recovery, and type of refrigerant recovered for each appliance;
 2. Amount of refrigerant (by type) recovered from all disposed appliances in each calendar month; and
 3. Quantity of refrigerant (by type) transferred for reclamation and/or destruction, the person to whom it was transferred, and the date of transfer.
- G. Trigger Rates: The leak repair requirements, promulgated under Section 608 of the Clean Air Act, require that when an owner or operator of an appliance that normally contains a refrigerant charge of ≥ 50 pounds discovers that refrigerant is leaking at a rate that would exceed the applicable trigger rate during a one-calendar year period, the owner or operator must take corrective action (see Attachment A).
- H. Leak Rate Calculations: For appliances containing ≥ 50 pounds of refrigerant to which refrigerant has been added. The leak rate can be calculated in one of two ways:

1. Annualizing Method

$$\text{Leak rate (\% per year)} = \frac{\text{pounds of refrigerant added}}{\text{pounds of refrigerant in full charge}} \times \frac{365 \text{ days/year}}{\text{shorter of: \# days since refrigerant last added or 365 days}} \times 100\%$$

Or

2. Rolling Average Method

$$\text{Leak rate (\% per year)} = \frac{\text{pounds of refrigerant added over past 365 days (or since leaks were last repaired, if that period is less than one year)}}{\text{pounds of refrigerant in full charge}} \times 100\%$$

I. Reports of Leaks to EPA:

1. If the calculated leak rate is greater than the trigger leak rates and the leak cannot be repaired within 30 days, the EPA must be notified within 30 days of discovering the leak. If repairs are delayed, records of the dates, types, and results of all initial (after start-up) and follow-up (30 days after the initial test) verification tests that are performed must be submitted to the EPA within 30 days after conducting each test.
NOTE: No leak reports are required to be submitted if the repairs are completed and the appliance passes both the initial and follow-up verification tests within the regulatory time frame. In addition, leak reports are not required for leak rates greater than the trigger point of 10 percent for comfort cooling appliances.
2. If any of the repairs fail the follow-up verification test, onsite documentation must be maintained, and the following information reported to the EPA within 30 days after the failed follow-up verification test:
 - a. The identification of the facility;
 - b. The leak rate and the method used to determine the leak rate and full charge;
 - c. The date of discovery that the leak rate was above the trigger point;
 - d. The location of leaks to the extent determined to date;
 - e. Any repair work that has already been completed;
 - f. The date when that work was completed; and
 - g. The date(s), type(s), and results of the failed follow-up verification test(s).
3. In addition, a retrofit or retirement plan must be developed within 30 days after a failed follow-up verification test. This plan does not have to be submitted to the EPA unless an additional extension of time is required beyond one year.
4. If additional time is required to repair leaks due to regulatory delay or delay in receiving repair parts, then, within 30 days after making the determination that extra time is needed, report to the EPA and document the reasons why more than 30 days are needed to complete the work with an estimate of when the repairs will be completed. This is in addition to any previous reports.

J. Inspections: Quarterly or annual appliance inspection records of appliances; see Attachment B.

K. Leak Detection Systems: Calibration and auditing records for continuous leak detection systems. Records of when the monitoring system identifies a leak, and the location of the leak.

L. Extension Requests: Requests submitted to EPA to extend the repair or retrofit deadlines.

M. Seasonal Variance: Records to demonstrate a seasonal variance.

N. Mothballed Systems: Records documenting when the system was mothballed and when it was brought back online (i.e., when refrigerant added to the appliance).

O. Retrofit and Retirement Plans: Any retrofit or retirement plans that were created for appliances or systems containing refrigerant.

For additional information, visit the [EPA Ozone Depletion Website](#).

VII. NOTIFICATIONS AND REPORTS: All notifications must be submitted electronically to 608reports@epa.gov. Reports must be submitted no later than March 1st of the following year. If the notification contains confidential business information, the information should be submitted to:

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

VIII. ADDITIONAL RESOURCES

- A. [The EPA's Section 608 Webpage](#)
- B. [Update to the Refrigerant Management Requirements Final Rule \(February 26, 2020\)](#)
- C. [Section 608 Technician Certification](#)
- D. [The EPA's Updated Refrigerant Management Requirements \(September 2016\)](#)

TRIGGER RATES

The leak repair requirements, promulgated under Section 608 of the Clean Air Act, require that when an owner or operator of an appliance that normally contains a refrigerant charge of more than 50 pounds discovers that refrigerant is leaking as a rate that would exceed the applicable rate during a 12-month period, the owner or operator must take corrective action.

Trigger Rates

For all appliances that have a refrigerant charge of more than 50 pounds, the following leak rates for a one-calendar year period are applicable.

Appliance Type	Trigger Leak Rate
Commercial refrigeration	20%
Industrial process refrigeration	30%
Comfort cooling	10%
All other appliances	15%

In general, owners or operators must either repair leaks within 30-days from the date the leak was discovered or develop a dated retrofit/retirement plan within 30-days and complete actions under that plan within one year from the plan's date. However, for industrial process refrigeration equipment and some federally owned chillers, additional time may be available.

Industrial process refrigeration is defined as complex customized appliances used in the chemical, pharmaceutical, petrochemical, and manufacturing industries. These appliances are directly linked to the industrial process. This sector also includes industrial ice machines, appliances used directly in the generation of electricity, and ice rinks. If at least 50 percent of the appliance's capacity is used in an industrial process refrigeration application, the appliance is considered industrial process refrigeration equipment and the trigger rate is 30%.

Industrial process refrigeration equipment and federally owned chillers must conduct initial and follow-up verification tests at the conclusion of any repair efforts. These tests are essential to ensure that the repairs have been successful. In cases where an industrial process shutdown is required, a repair period of 120-days is substituted for the normal 30-day repair period. Subject to EPA approval of an extension request. Any appliance that requires additional time may be subject to recordkeeping/reporting requirements.

LEAK INSPECTION REQUIREMENTS

Leak Inspection requirements for equipment that have exceeded the applicable leak rate.

Leak inspections must be conducted by a certified technician. All visible and accessible components of an appliance must be inspected.

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.

Equipment	Full Charge	Frequency of Leak Inspections
Commercial Refrigeration and Industrial Process Refrigeration	> 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% (industrial process refrigeration) 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% (industrial process refrigeration) for one year.
Comfort Cooling	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.