



## SECTION 608 REGULATORY CHANGES

**OVERVIEW: Extends existing regulations for CFCs and HCFCs to HFCs and non-exempt substitutes**

TOPIC	Who is Affected	When	Requirement
<b>REFRIGERANT RECLAMATION</b>	*Technicians *Appliance owners/operators	1-1-2017	◆Used HFC, HCFC, and CFC refrigerants must be reclaimed by an EPA certified reclaimer before they can be used in a different owner's system
<b>REFRIGERANT SALES RESTRICTION</b>	*All refrigerant purchasers *All refrigerant sellers	1-1-2018	◆Only certified technicians can purchase HFC refrigerants (already required for HCFC and CFC refrigerants); does not apply to EPA exempted substitutes
<b>TECHNICIAN CERTIFICATION</b>	*Persons who service, maintain repair or dispose of appliances (technicians)	1-1-2018	◆Technicians must be certified to open HFC appliances (already applicable to HCFC and CFC appliances); a technician must be certified to perform required leak inspections (a leak inspection is required if the system is known to be leaking above the allowable annual leak rate)
<b>SERVICE PRACTICES</b>	*Technicians *Appliance owners/operators	1-1-2018	◆HFC appliances must be evacuated to same evacuation levels that apply to HCFC and CFC before being opened for servicing
		1-1-2019	◆Lower allowable leak rates apply to all refrigerant appliances containing 50 or more lbs. ◆Leak inspection required for all refrigerant application that exceed the allowable leak rate (it is up to the technician to determine the appropriate method to detect leaks) ◆Leak repair verification test required for all refrigerant appliances that exceed the allowable leak rate ◆Must provide equipment owners with invoices that include the amount of refrigerant added ◆Must provide equipment owners with the results of leak inspection and verification tests
	*Appliance owners/operators	1-1-2019	◆Must calculate leak rate each time refrigerant is added to an appliance containing 50 lbs. or more of refrigerant ◆Must comply with lower allowable leak rates ◆Must repair leaks in an affected appliance until the appliance is below the allowable leak rate ◆Must have the leak(s) repaired within 30 days of determining that the leak rate exceeds the allowable rate ◆Must notify EPA if more than 30 days are needed to complete a repair (e.g. replacement component will not be available within 30 days) ◆Must develop a retrofit or replacement plan if allowable leak rate cannot be achieved within allotted time ◆Must perform initial and follow up verification after a leak(s) has been repaired to confirm the repair(s) worked ◆Must retain records on amount of refrigerant added to an appliance ◆Must retain records of results of leak inspection and verification tests ◆Must submit report to EPA no later than March 1 if an appliance leaks 125% or more of its full charge in one calendar year (chronically leaking appliance) ◆Must include in report to EPA efforts to identify and repair chronically leaking appliance
<b>APPLIANCE DISPOSAL</b>	*Technicians	1-1-2018	◆HFC appliances destined for disposal must be properly evacuated prior to disposal ◆Records must be maintained for disposed appliances that contained between 5 and 50 lbs. of refrigerant (this already applies to appliances that contained 50 lbs. or more)



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**RECORDKEEPING---All records must be maintained for 3 years**

Record Type	What Must be Included	Who Must Retain the Records	Record Source
<b><i>APPLIANCE INFORMATION</i></b>	<ul style="list-style-type: none"> <li>◆ Documentation of each appliance's full charge</li> <li>◆ Amount of refrigerant added to or removed from an appliance each time</li> <li>◆ Calculation of leak rate</li> <li>◆ When a leak inspection is performed</li> <li>◆ When verification is conducted</li> <li>◆ When service or maintenance is performed</li> <li>◆ Automatic leak detection system information if applicable</li> </ul>	Owner/Operator Owner/Operator Owner/Operator Owner/Operator Owner/Operator Owner/Operator Owner/Operator	Owner/Operator Technician Owner/Operator Technician Technician Technician Technician
<b><i>APPLIANCE DISPOSAL</i></b>	<ul style="list-style-type: none"> <li>◆ Name of company disposing of appliance</li> <li>◆ Location of appliance</li> <li>◆ Date of recovery and type of refrigerant recovered from appliance</li> <li>◆ Total quantity of refrigerant by type recovered from all disposed appliances/month</li> <li>◆ Quantity and type of recovered refrigerant sent for reclamation or destruction</li> <li>◆ Name of company recovered refrigerant was transferred to and date of transfer</li> </ul>	Technician Technician Technician Technician Technician Technician	Technician Technician Technician Technician Technician Technician
<b><i>LEAK INSPECTION</i></b> <i>(if applicable)</i>	<ul style="list-style-type: none"> <li>◆ Date of leak inspection</li> <li>◆ Method(s) used to detect leaks</li> <li>◆ Calculation of leak rate</li> <li>◆ Location of each leak identified during inspection</li> <li>◆ Certification statement indicating that all visible and accessible parts were inspected</li> </ul>	Owner/Operator Owner/Operator Owner/Operator Owner/Operator Owner/Operator	Technician Technician Owner/Operator Technician Technician
<b><i>VERIFICATION TEST</i></b> <i>(if applicable)</i>	<ul style="list-style-type: none"> <li>◆ Location of appliance</li> <li>◆ Date of verification test</li> <li>◆ Location of each repaired leak that was tested</li> <li>◆ Type of verification test used</li> <li>◆ Result of each verification test</li> </ul>	Owner/Operator Owner/Operator Owner/Operator Owner/Operator Owner/Operator	Technician Technician Technician Technician Technician

**TECHNICANS ARE REQUIRED TO PROVIDE THE FOLLOWING INFORMATION TO APPLIANCE OWNERS/OPERATORS:**

**For any Maintenance, Service Repair, or Disposal of an Appliance:**

- ◆ Identity and location of appliance
- ◆ Date and type of maintenance, etc., performed including: location of repair, leak inspections or verification tests, if applicable
- ◆ Name and contact information of person performing maintenance, etc.
- ◆ Amount of refrigerant added to or removed from an appliance



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**ALLOWABLE LEAK RATES** – Only applies to appliances containing 50 lbs. or more of a refrigerant

Appliance Type	Current Leak Rate	New Leak Rate Effective 1/1/2019
Industrial Process Refrigeration	35%	30%
Commercial Refrigeration	35%	20%
Comfort Cooling	15%	10%

- LEAK DETECTION**
- ◆ EPA does not require a specific method for detecting leaks
  - ◆ Leak inspection must be conducted on all visible and accessible components of an appliance
  - ◆ What is not considered visible or accessible:
    - Insulated components
    - Components iced over
    - Components that are underground, behind walls or otherwise inaccessible
    - Components that are located in a position that requires the technician to be elevated more than 6.5 feet
    - Components that are located on the equipment where it would be unsafe for the technician to inspect

**EXCEPTION** ◆ An equipment owner can choose to install an Automatic Leak Detection system that continuously monitors a whole appliance or portions of the appliance in lieu of performing required periodic inspections

- LEAK REPAIR**
- ◆ Required to repair leak(s) when allowable leak rate is exceeded
  - ◆ Must demonstrate that the repair resulted in the appliance no longer exceeding the allowable leak rate
  - ◆ Must perform initial verification test that leak is repaired before adding refrigerant back into the repaired appliance
  - ◆ Must conduct follow-up verification test after the repaired appliance returns to normal operating performance and condition
  - ◆ Must perform periodic leak inspections of visible and accessible components and parts:

Appliance	Full Charge Size	Frequency of Leak Inspections
Commercial Refrigeration & Industrial Process Refrigeration	≥ 500 lbs.	1x/3mos. until leak rate has not exceeded threshold for four consecutive quarters
	50 to <500 lbs.	1x/calendar year until leak rate has not exceeded threshold for one year
Comfort Cooling	≥ 50 lbs.	1x/calendar year until leak rate has not exceeded threshold for one year

- ◆ Leak Repairs and inspections must be documented with the following information:
  - date of leak inspection
  - method(s) used to detect leaks
  - location of each leak identified during inspection
  - certification statement indicating that all visible and accessible parts were inspected