



## 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<br>*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<br>*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<br>*Appliance owners/operators                                  | 1-1-2018<br><br>1-1-2019 | ◆HFC appliances must be evacuated to same evacuation levels that apply to HCFC and CFC before being opened for servicing<br><br>◆Lower allowable leak rates apply to all refrigerant appliances containing 50 or more lbs.<br>◆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)<br>◆Leak repair verification test required for all refrigerant appliances that exceed the allowable leak rate<br>◆Must provide equipment owners with invoices that include the amount of refrigerant added<br>◆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<br>◆Must comply with lower allowable leak rates<br>◆Must repair leaks in an affected appliance until the appliance is below the allowable leak rate<br>◆Must have the leak(s) repaired within 30 days of determining that the leak rate exceeds the allowable rate<br>◆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)<br>◆Must develop a retrofit or replacement plan if allowable leak rate cannot be achieved within allotted time<br>◆Must perform initial and follow up verification after a leak(s) has been repaired to confirm the repair(s) worked<br>◆Must retain records on amount of refrigerant added to an appliance<br>◆Must retain records of results of leak inspection and verification tests<br>◆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)<br>◆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<br>◆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>APPLIANCE INFORMATION</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<br>Owner/Operator<br>Owner/Operator<br>Owner/Operator<br>Owner/Operator<br>Owner/Operator<br>Owner/Operator | Owner/Operator<br>Technician<br>Owner/Operator<br>Technician<br>Technician<br>Technician<br>Technician |
| <b>APPLIANCE DISPOSAL</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<br>Technician<br>Technician<br>Technician<br>Technician<br>Technician   | Technician<br>Technician<br>Technician<br>Technician<br>Technician<br>Technician                       |
| <b>LEAK INSPECTION (if applicable)</b>   | <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<br>Owner/Operator<br>Owner/Operator<br>Owner/Operator<br>Owner/Operator                                     | Technician<br>Technician<br>Owner/Operator<br>Technician<br>Technician                                 |
| <b>VERIFICATION TEST (if applicable)</b> | <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<br>Owner/Operator<br>Owner/Operator<br>Owner/Operator<br>Owner/Operator                                     | Technician<br>Technician<br>Technician<br>Technician<br>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