



# EPA Section 608 2019 Refrigerant Compliance checklist & guidelines

REFRIGERANT MANAGEMENT FOR CRITICAL COOLING AND REFRIGERATION





## EPA Section 608 2019 Refrigerant Compliance

With revisions of the EPA Refrigerant Recycling and Emissions Reduction Program coming into effect in January 2019, it's important to understand what's required. This document outlines the key requirements for equipment owners within the food retail sector.

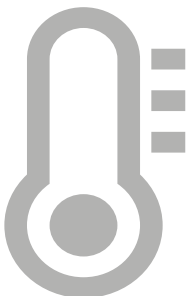
Compliance with evolving legislation can be demanding while also ensuring product quality and the safety of colleagues and customers, reducing operating expense and improving margins, while striving for 24/7/365 equipment uptime.

That's why we've summarized the 2019 regulation changes in a handy checklist for you, so you can focus on your operation while we focus on helping you reduce your refrigerant emissions.

The EPA Refrigerant Recycling & Emissions Reduction Program defines:

- ✓ Robust record keeping
- ✓ Leak rate calculations
- ✓ Equipment leak thresholds
- ✓ Leak repair time frames
- ✓ Leak inspection requirements
- ✓ Retrofit and retirement timescales
- ✓ Chronically leaking appliance reporting

Currently, the above EPA 608 checklist will apply to Class I (CFCs), Class II (HCFCs) or any non-exempt substitute substances (e.g. HFCs, HFOs and PFCs) used as a refrigerant from January 1<sup>st</sup> 2019. On October 1<sup>st</sup> 2018, the EPA submitted a proposed rule to only apply EPA 608 to Class I and Class II substances used as a refrigerant from a compliance standpoint. This is currently under review and we await confirmation.



In the US, the EPA National Recycling & Emissions Reduction Program sets the base level requirements to which all refrigerant users must comply. There are also an increasing number of state-specific regulations that require increased record keeping, reporting standards or swifter response times. If you are an enterprise operating across multiple states, different sites may need to comply with different legislation. There are also voluntary bodies and partnerships that provide best practices, resources, recognition and certification of sustainability in the refrigerant management domain. Going beyond simply your basic legal requirements and affiliating yourself and your business with these organizations will help you demonstrate leadership and values beyond basic equipment operation.



## **01** Robust record keeping

Appliance owners have robust record keeping requirements for appliances, servicing, refrigerant addition and repairs.

For all appliances with **50 or more pounds** of refrigerant, the following records are required:

- ✓ Identity and location of appliance within the site
- ✓ Owner / operator of the appliance
- ✓ Address of the site where the appliance is located
- ✓ Full charge of the appliance, how the full charge is calculated and any supporting records
- ✓ Any changes to the full charge value, date of change and method used

For work carried out on any appliance with **50 or more pounds**, the following records are required:

- ✓ Records documenting date and type of service
- ✓ Invoice or other documentation stating the amount and type of refrigerant added to the appliance and the date it was applied
- ✓ Date, type and result of the initial and follow-up verification tests must be recorded

For appliances with **5 or more pounds** of refrigerant where refrigerant is being removed, the technician must keep the following records:

- ✓ The date of recovery
- ✓ The type and quantity of each refrigerant recovered
- ✓ The person to whom the refrigerant was transferred, and the date of transfer
- ✓ The fate of the refrigerant - reclamation or destruction

NOTE:

All records must be kept for a minimum of 3 years.



# 02 Leak rate calculations

Every time refrigerant is added to an appliance, a re-calculation of the leak rate must be carried out.

Owners or operators of appliances that contain 50 or more pounds of non-exempt substitute refrigerant must calculate the leak rate when refrigerant is added to the appliance. The EPA provide two methods of calculation and you should adopt one method for your enterprise.



## Annualizing method

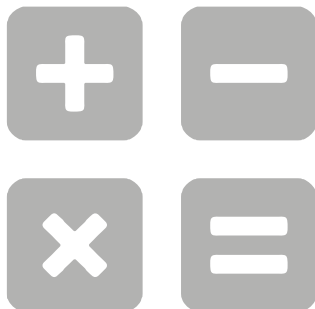
The EPA outlines the following method:

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

## Rolling average method

The EPA rolling average method is calculated as:

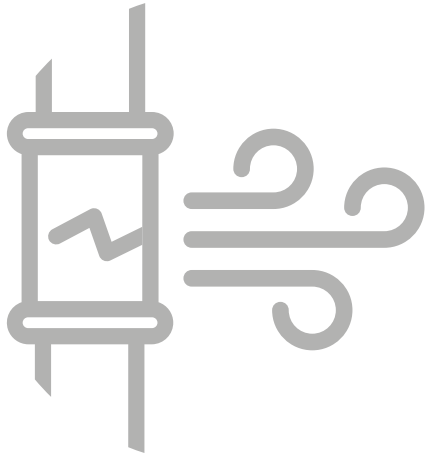
$$\text{Leak rate (\% per year)} = \frac{\text{pounds of refrigerant added over past 365 days}}{\text{pounds of refrigerant in full charge}} \times 100\%$$



See EPA Fact Sheet *2019 Leak Rate Calculations for Appliances that Contain Non-Exempt Substitute Refrigerants*:

[https://www.epa.gov/sites/production/files/2017-10/documents/2019\\_leak\\_rate\\_calculation.pdf](https://www.epa.gov/sites/production/files/2017-10/documents/2019_leak_rate_calculation.pdf)

for further information.



## ☑ 03

### Equipment leak thresholds

If the amount of refrigerant added exceeds the applicable allowable leak rate, defined by the type of equipment, the leak must be repaired or the appliance retrofitted or retired.

From January 1<sup>st</sup> 2019, the EPA 608 equipment categories and leak thresholds reduce to:

- ✓ 30% (from 35%) industrial process refrigeration
- ✓ 20% (from 35%) commercial refrigeration equipment
- ✓ 10% (from 15%) comfort cooling appliances



## ☑ 04

### Leak repair time frames

Repairs, inspections and verifications must be completed within 30 days for commercial applications or 120 days for industrial process refrigeration.

Within the 30 day time frame, you must carry out:

- ✓ Leak inspection
- ✓ Repair any leaks found
- ✓ Initial verification of repairs (carried out before any additional refrigerant is added)
- ✓ Follow up verification of repairs (within 10 days of initial verification and carried out at operating conditions)

All servicing must be completed by technicians with appropriate certification. For further information on Section 608 Technician Certification, please see:

 <https://www.epa.gov/section608/section-608-technician-certification-0>

## 05 Leak inspection requirements

If the appliance exceeds the applicable allowable leak rate, leak inspections are due. All leak inspections must be carried out by a certified technician.

### For commercial or industrial applications:

If the equipment charge >500 pounds, inspections are required once every 3 months

- ✓ If the equipment charge is between 50 and 500 pounds, inspections are required every 12 months

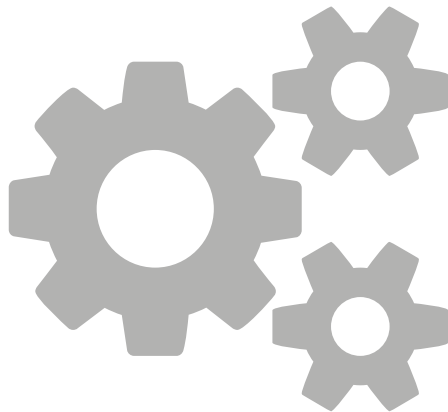
### For comfort cooling applications:

- ✓ If the equipment charge is over 50 pounds, inspections are required every 12 months

NOTE: Inspections are not required for appliances or portions of appliances covered by automated leak detection, calibrated every 12 months.



## 06 Retrofit & retirement timescales



If repairs do not bring the appliance under the target threshold, the appliance must be retrofitted or retired with specific target deadlines.

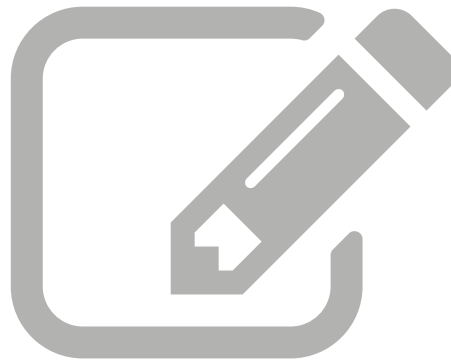
- ✓ Retrofit / retirement plans are due within 30 days of the decision to retire or retrofit. There are specific rules on what must be included
- ✓ All work to deliver the retrofit or retirement plan must be completed within 1 year of the plan creation date

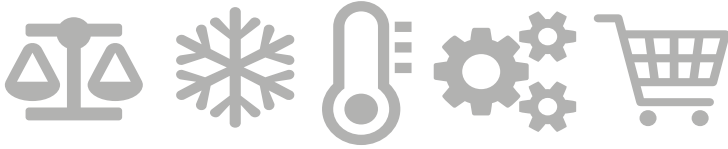


## 07 Chronically leaking appliance reporting

Equipment with leak rates over 125% are classed as 'chronically leaking' and must be reported to the EPA.

- ✓ Chronically leaking equipment that leaks 125% or more of its full charge in 12 months must have a report submitted to the EPA by the owner / operator
- ✓ The report should describe actions to identify leaks and repair them
- ✓ The report must be submitted by March 1<sup>st</sup> of the subsequent year





## For refrigerant compliance call for a consultation now

Our vision is to empower teams to effortlessly collaborate to achieve compliance and become leaders of environmental sustainability.

Bacharach's **Refrigerant Detectors** are renowned in the food retail industry for their leading 1PPM minimum detection level and accuracy. Identifying refrigerant leaks as early as possible in grocery stores and supermarkets enables the lowest refrigerant emissions, protection of refrigerant investments as well as inventory, employees, and customers.

Our enterprise-scale **Refrigerant Tracking & Compliance software** guides and steers users through all events and record keeping required for compliance with EPA608. You can be confident you

are complying with all the details of your relevant regulations across your enterprise while focusing on actions and managing your assets.

We recognize that not everyone has the team or resources to implement an effective refrigerant management strategy. Our tiered **Professional Services** can support and guide you, your team and your contractors so all is being done to comply with legislation while internal teams can be dedicated to your strategic projects and initiatives.

To find out more, give us a call or visit our website:



**540-543-3041**



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### Industry Participation and Leadership



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