

BULLETIN: Refrigerant Leak Management Requirements for Appliances ≥15 lbs.

Effective Date: January 1, 2026

Applicability

These requirements apply to refrigerant-containing appliances with a full charge of 15 or more pounds where the refrigerant is:

- A regulated substance, or
- A substitute with a GWP greater than 53 (per table 1 of § 84.64(b))

Notwithstanding the criteria above, the following are exempt:

- Appliances containing solely an ozone-depleting substance (per 40 CFR part 82, subpart A)
- Residential and light commercial AC and heat pump equipment

Leak Rate Thresholds

Owners or operators must repair leaks in refrigerant-containing appliances with a leak rate over the applicable leak rate. If the owner or operator elects to repair leaks but fails to bring the leak rate below the applicable leak rate, the owner or operator must create and implement a retrofit or retirement plan.

| Appliance Type | Leak Rate Trigger |
|---|-------------------|
| Commercial Refrigeration | 20% |
| Industrial Process Refrigeration | 30% |
| Comfort Cooling, Refrigerated Transport, & All Others | 10% |

Leak Rate Calculation

Owners/operators must calculate the leak rate every time refrigerant is added, except after a retrofit, new installation, or seasonal variance.

- **Annualizing method (first-time calculation after 1/1/2026):** Substitute 365 days as the period since last addition.
- **Rolling average method (first-time calculation after 1/1/2026):** Substitute pounds added since 1/1/2026.

Switching methods are only permitted upon acquisition of a facility using a different method, provided no appliance exceeds the applicable leak rate under either method. The change must be documented.

Note: Purged refrigerant destroyed at $\geq 98\%$ efficiency may be excluded from leak rate calculations.

Repair Requirements

When an appliance exceeds the applicable leak rate, owners/operators must act:

Option 1: Repair

- Deadline: 30 days from the triggering refrigerant addition (or 120 days if industrial process shutdown is required).
- A certified technician must perform a leak inspection and conduct all repairs.
- Repairs must reduce the leak rate below the applicable threshold.

Verification Tests (Required for All Repairs)

| Test | Timing | Purpose |
|------------------|--|---|
| Initial | Within the 30/120-day repair window | Confirm repairs are held <i>before</i> adding refrigerant |
| Follow-up | Within 10 days of successful initial test (or 10 days of reaching normal operating conditions) | Confirm long-term repair success |

Repairs are presumed successful if no refrigerant is added and no leaks are found for 12 months following a successful follow-up test.

Option 2: Retrofit or Retire

If the owner/operator elects not to repair — or if repairs fail — a retrofit or retirement plan must be created within 30 days and completed within one year.

Repair Deadline Extensions

Extensions beyond 30/120 days are available when:

- Radiological contamination or safety concerns exist
- Other federal, state, local, or tribal regulations prevent timely repair
- Replacement components are unavailable (max extension: **180 days / 270 days** for industrial process shutdown)

Requests must be submitted electronically to EPA within the initial 30/120-day period and signed by an authorized company official. Requests are deemed approved unless EPA responds otherwise.

Post-Repair Leak Inspections

After a successful follow-up verification test:

| Appliance Type | Charge Size | Inspection Frequency | Duration |
|---------------------------------|-------------|----------------------|--|
| Commercial / Industrial Process | ≥500 lbs | Quarterly | Until 4 consecutive quarters below leak rate |
| Commercial / Industrial Process | 15–499 lbs | Annually | Until 1 year below leak rate |
| Comfort Cooling & Others | ≥15 lbs | Annually | Until 1 year below leak rate |

- Inspections must cover all visible and accessible components.
- Components that are insulated, underground, behind walls, elevated >2 meters, or unsafe to access are exempt.
- Automatic leak detection systems (audited/calibrated annually and meeting § 84.108 requirements) may substitute for quarterly/annual inspections for monitored portions of the appliance.

Retrofit or Retirement Plans

Plans must include:

- Appliance identification & location
- Current refrigerant type and charge; new refrigerant type and charge (if retrofitting)
- Conversion procedure and recovered refrigerant disposition
- Appliance disposition plan (if retiring)
- Completion schedule (not to exceed 1 year)

Plans must be signed by an authorized company official and available on-site for EPA inspection.

Relief option: Within 180 days, if the appliance no longer exceeds the leak rate, the owner/operator may request EPA relieve the retrofit/retirement obligation (deemed approved unless EPA responds within 60 days).

Retrofit/Retirement Extensions (Industrial Process Refrigeration)

Additional time beyond one year is available for regulatory conflicts, custom-built equipment with >30-week lead times, or radiological hazards. Requests must be submitted within 7 months of discovering the exceedance.

Chronically Leaking Appliances

Appliances leaking $\geq 125\%$ of full charge in a calendar year must be reported to EPA by March 1 of the following year, including detailed identification, leak data, repair actions, and any retrofit/retirement plans.

Mothballing

All repair, retrofit, and retirement deadlines are suspended while an appliance is mothballed. Deadlines resume when refrigerant is next added.

Recordkeeping Summary

All records must be maintained for at least 3 years (electronic or paper) unless otherwise noted.

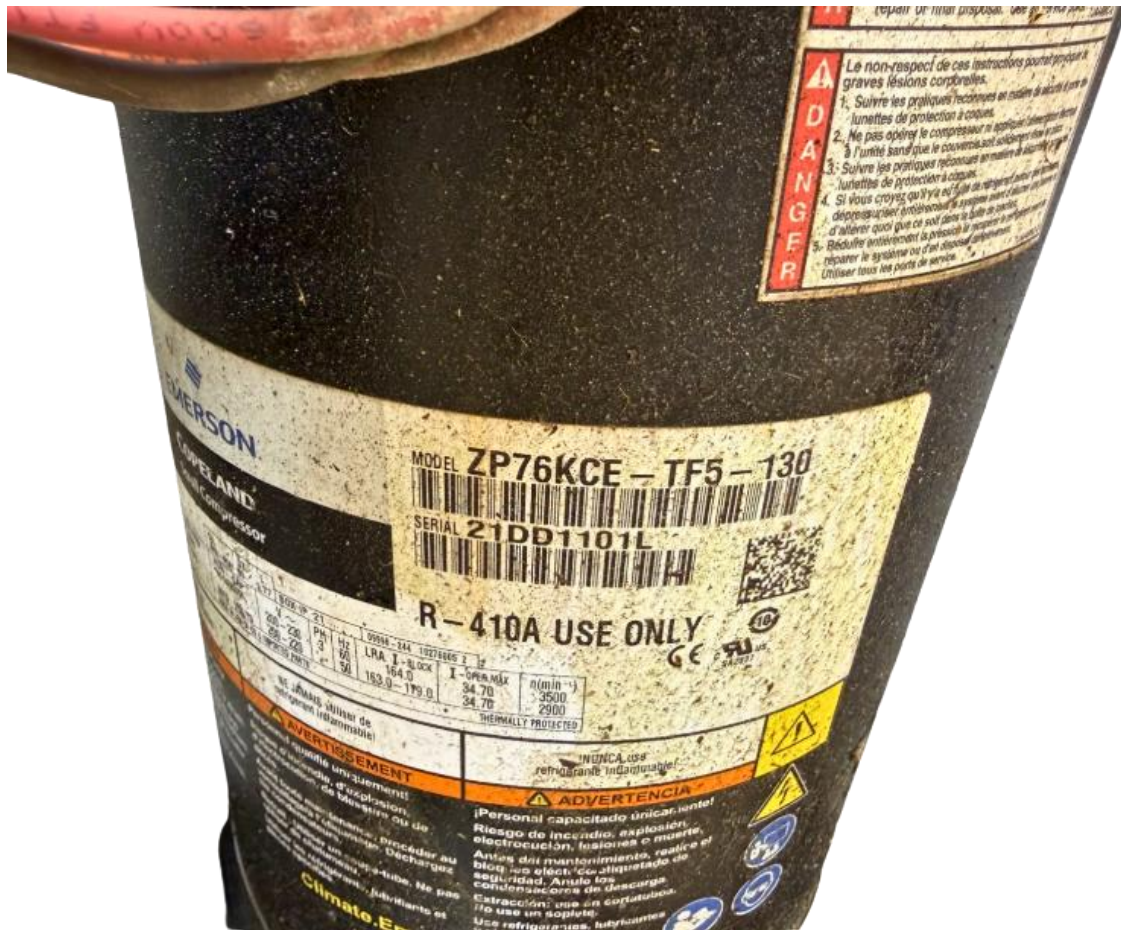
| Record Type | Retention |
|--|--|
| Full charge determination & appliance info | Until 3 years after appliance retirement |
| Service, repair, installation, disposal events | 3 years |
| Leak rate calculation method changes | 3 years |
| Leak inspections & verification tests | 3 years |
| Automatic leak detection system records | 3 years |
| Retrofit/retirement plans & extension requests | 3 years |
| Mothballing documentation | 3 years |
| Purged refrigerant destruction records | 3 years |
| Seasonal variance exclusion records | 3 years |
| Reports submitted to EPA & EPA responses | 3 years |

Service providers must provide documentation to owners/operators after any installation, service, repair, or disposal event.

EPA Reporting Requirements

All submissions must be made electronically via EPA's applicable reporting platform:

1. **Repair extension requests** — within 30/120 days of exceedance
2. **Relief from retrofit/retirement obligation** — per § (h)(5)(ii)
3. **Retrofit/retirement extension requests** — within 7 months of exceedance
4. **Chronically leaking appliance reports** ($\geq 125\%$ loss) — by March 1 annually
5. **Purged refrigerant destruction exclusion notification** — within 60 days of first use



References

Code of Federal Regulations (eCFR) – Title 40, Section 84.106 (Leak Repair)
– <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-C/part-84/subpart-C/section-84.106>

FMHero – Refrigerant Management Platform <https://www.fmhero.com/>

Library of Congress – S.2754 – 116th Congress (2019-2020): American Innovation and Manufacturing Act of 2019 – <https://www.congress.gov/bill/116th-congress/senate-bill/2754/text>

This bulletin is a summary for informational purposes. Refer to the full regulatory text for complete compliance requirements.