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# Section 608 Refrigerant Rule: What Is Your Compliance/Enforcement Risk With Respect to the 2016 Rule and the October 2018 Proposed Rule?

2019 Missouri Air Compliance Seminar - March 7, 2019

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# Agenda

- > Phase Out/Enforcement
- > Rule Review
- > Case Studies
- > EPA Rollback - Latest News!
- > Q&A

# Relevance to Industrial (and Commercial and University) Sites

- > Phase out of HCFCs and HFCs will increase refrigerant costs and accelerate equipment retrofits/replacements (R-22 phase out 2020)
- > Non-compliance with the leak repair provisions can lead to steep penalties & forced retrofits/replacements
  - ❖ Earthgrains Baking Companies - \$10.25 million
  - ❖ Bristol-Myers Squibb - \$3.65 million
  - ❖ American Seafoods Group - \$9-\$15 million
- > Revised leak repair provisions represent significant raising of the bar for recordkeeping

# Refrigerant Servicing Rule Revisions

- > Rule represents overhaul of 40 CFR 82, Subpart F
- > Finalized on 11/18/2016 (81 FR 82272)
- > Includes 3 primary categories of changes
  - ❖ Extension to non-ODS containing substitutes
  - ❖ Revised appliance disposal requirements
  - ❖ Revised leak repair provisions for appliances with full charge  $\geq$  50 lbs
- > Staggered compliance dates of 1/1/2017, 1/1/2018, & 1/1/2019

# Appliance Disposal Requirements - New in 2018

- > Small Appliances ( $\leq 5$  lb) appliances
  - ❖ Option 1 - final processor evacuates and recovers refrigerant
  - ❖ Option 2 - verify that refrigerant has been evacuated previously via A) signed statements or B) contract
  - ❖ Also applies to MVAC and MVAC-like appliances
- > Medium Appliances ( $> 5$  lb and  $< 50$  lb)
  - ❖ Explicit recordkeeping requirements - company name, location of appliance, date of recovery, type of refrigerant recovered, quantity of refrigerant recovered from all appliances/month, quantity of refrigerant transferred for reclamation and/or destruction, person to whom refrigerant is transferred, and date of transfer
  - ❖ Owners/operators required to maintain documentation if directly employ certified technicians

# Appliance Disposal Requirements - Common Problem Areas

- > Not having records associated with appliance disposal events
- > Not providing signed statements or having required contract language in place with scrap recycler
- > Not differentiating between appliances that “leaked out” versus those that required evacuation

# Leak Repair Provisions for $\geq 50$ lb Units - New in 2019

- > Establishes leak inspection requirements if exceed allowable leak rates [82.157(g)]
  - ❖ Commercial/industrial process refrigeration  $\geq 500$  lbs - quarterly, until 4 consecutive quarters w/ no leaks above allowable leak rate
  - ❖ All other units  $\geq 50$  lbs - once per calendar year, until 1 year w/ no leaks above allowable leak rate
  - ❖ Must be performed by certified technicians
  - ❖ Not required if equipped with automatic leak detection system

# Leak Repair Provisions for $\geq 50$ lb Units - New in 2019

- > Reporting required for appliances  $\geq 50$  lbs that leak more than 125% of their full charge in calendar year [82.157(j)]
  - ❖ “Chronic leaker” provision
  - ❖ Calculation = amount added / full charge (do not use standard leak rate calculation methods for this purpose)
  - ❖ Due 3/1 of following year
  - ❖ Keep records for 2019 - **report due 3/1/2020**



# Revisions to Leak Repair Provisions - Common Problem Areas

- > Improper categorization of appliances as IPRAs
- > Failure to identify individual circuits as appliances
- > No documentation of full charge method
- > Assuming HVAC contractor knows what records are required
- > Lack of specific leak location documentation
- > Incomplete leak repair verification testing records (all appliances now)
- > Not calculating leak rates (under approach that all leaks fixed within 30 days)

# Case Study #1: Who is Responsible?

- > Corporate office says, “As long as you have a contractor working on your refrigerant systems, you’re covered.”
- > Facility relies wholly on contractor to complete services. No records are retained on-site.
- > Is this correct?

# Revisions to Leak Repair Provisions for ≥ 50 lb Units - Clarifies Who is Responsible for Servicing Records [82.157(l)(2)]

(2) Owners or operators must maintain a record including the following information for each time an appliance with a full charge of 50 or more pounds is maintained, serviced, repaired, or disposed of, when applicable. If the maintenance, service, repair, or disposal is done by someone other than the owner or operator, that person must provide a record containing the following information, with the exception of (l)(2)(vii) and (viii) of this section, to the owner or operator:

- > Similar language in leak inspection (l)(3) and verification testing (l)(5) recordkeeping provisions

# Case Study #2: Chronic Leaker

- > Facility has a large, complex unit with ~7 compressors that impacts 4 different industrial processes.
- > Designed/built in the 1970s; retrofitted from R-22 to R-134a in the 1990s
- > Full charge estimated at 30,000 lb, but no one has an actual measurement or accurate calculation of total charge.
- > System is maintained by on-site personnel who are not certified for refrigerants.
- > Facility budgets for 10,000 lb loss per year.

# What are the problems/exposure pathways?

- > Certified technicians required as of 1/1/2018.
- > Full charge and full charge method are unknown.
- > Leaks required to be repaired to bring unit below 30% starting 1/1/2019.
- > Facility refuses to consider implementation of a “preemptive” retrofit/retirement plan.

# Case Study #3: Recordkeeping

- > Employee retired in 2018.
- > Records of refrigerant services were maintained on the employee's computer in a proprietary system. The computer was removed from service/erased two months prior to anyone realizing that the records were not available.
- > Facility has a Title V permit.

# Title V and Intermediate Permit Language

## 40 CFR Part 82 Protection of Stratospheric Ozone (Title VI)

- 1) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  - a) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to 40 CFR §82.106.
  - b) The placement of the required warning statement must comply with the requirements of 40 CFR §82.108.
  - c) The form of the label bearing the required warning statement must comply with the requirements of 40 CFR §82.110.
  - d) No person may modify, remove, or interfere with the required warning statement except as described in 40 CFR §82.112.
- 2) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B of 40 CFR Part 82:
  - a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices described in 40 CFR §82.156.

# Title V and Intermediate Permit Language

- b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment described in 40 CFR §82.158.
  - c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR §82.161.
  - d) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with the record keeping requirements of 40 CFR §82.166. ("MVAC-like" appliance as defined at 40 CFR §82.152).
  - e) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to 40 CFR §82.156.
  - f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR §82.166.
- 3) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
  - 4) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements contained in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.
  - 5) The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR Part 82.*



# Case Study #4: IPRA Records

- > Facility has multiple IPRA units with multiple circuits.
- > Previous service records were retained in a company-specific system (online).
- > Previous service records did not identify the specific circuit that was repaired.

# What are the problems/exposure pathways?

- > No way to determine which service events were completed on which circuits
- > Not able to calculate leak rates

# Late Breaking News - New EPA Proposal

- > Stems from 8/10/2017 letter from EPA to two industry groups
- > Proposed rule issued on 10/1/2018
  - ❖ Proposing to limit leak repair provisions to ODS refrigerants
  - ❖ Requesting comment on:
    - ◆ Full roll back for non-ODS refrigerants (all but the venting prohibition)
    - ◆ 6-12 month extension to 1/1/2019 compliance date for non-ODS refrigerants if rule not finalized in reasonable time prior to 1/1/2019

Does NOT impact rule as it relates to ODS refrigerants!

# How Should Facilities Prepare for Subpart F Revisions?

- > Use EPA required work practices previously reserved for ODS-containing refrigerants (e.g., R-12, R-22) on non-ODS substitutes (e.g., R-134a, R-410A)
  - ❖ Certified technicians
  - ❖ Certified recovery/recycling equipment
  - ❖ Required refrigerant evacuation levels
- > Implement changes to appliance disposal recordkeeping system
- > Implement new leak repair provisions on  $\geq 50$  lb units
  - ❖ Conduct initial and follow-up verification testing for all leaks
  - ❖ Implement system to maintain new records

# Key Components of Refrigerant Compliance Program

- > High-level procedure/policy
- > Accurate appliance inventory
  - ❖ Focus on large ( $\geq 50$  lb) appliances
- > Comprehensive service/repair form
- > Comprehensive appliance disposal form
- > Leak repair tracking tool
- > Refrigerant transfer tracking tool

# Questions?

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## EQ article provided at:

<https://www.trinityconsultants.com/news/federal/refrigerant-rule-revisions--is-your-facility-prepared>

## Complete summary table in PDF format provided at:

<http://www.trinityconsultants.com/Documents/Summary-of-Key-Revisions-to-Refrigerant-Management->