Effective Compliance & Recordkeeping Strategies for Refrigerant Containing Assets

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Outline

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4. Lessons Learned—Risk Reduction
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Objective

- Improve compliance monitoring, record keeping, and reporting of Ozone Depleting Substances (ODS) at Hill AFB by:
  - Implementing more thorough refrigerant data management techniques
  - Reducing the risk of non-compliance involving recordkeeping for ODS
Hill AFB—a large facility:

- Main Base: 6,600 acres
- UTTR: 1,000,000 acres
  (11,000,000 acres of military operating space)
Hill AFB ODS Background

- 16 refrigerant recycling processes
- Nearly 200 appliances 50 lbs or greater subject to 40 CFR 82
- Largest units:
  - Two 1,200 lb units supporting mission-critical applications at the Defense Information Systems Agency

Hill AFB-owned refrigerant recycling unit
Hill AFB ODS Background

**ODS Regulatory Drivers:**

- **Montreal Protocol of 1987:**
  - Intent to cease production of ODS
  - Incorporated into Clean Air Act (CAA)

- **Title VI of the CAA 1990 amendments, “Stratospheric Ozone Protection”:**
  - Encourages using safer chemicals
  - Requirements incorporated into 40 CFR 82
Hill AFB ODS Background

- ODS Regulatory Drivers, cont’d:
    - Addresses the handling, recycling and disposal of ODS-containing appliances
  - Hill AFB Title V Air Quality Operating Permit:
    - Requires Hill AFB to adhere to 40 CFR 82 requirements
Hill AFB ODS Background

- ODS Compliance Drivers, cont’d:
- AFD-070613-041, *Air Force Refrigerant Management Handbook* does NOT address:
  - Recent Green House Gas (GHG) inventory regulations
  - EPA’s Significant New Alternatives Policy (SNAP) covering phase-out and alternative products
Hill AFB ODS Background

- Nation-wide increased focus on ODS compliance during EPA multi-media inspections
- Common ODS violations:
  - Inadequate recordkeeping associated with equipment/technician certifications
  - Inadequate recordkeeping involving servicing details, leak checks, and leak rates
- Air Force Material Command initiated Notice to Airmen (NOTAM):
  - Prompted facilities to proactively gather data to illustrate ODS compliance in case of inspection
Improving ODS Procedures

- Partially in response to the NOTAM, Hill AFB data collection and management efforts include:
  - Inventorying certain equipment subject to Title VI requirements
  - Creating a refrigerant leak rate calculation algorithm, and archiving refrigeration technician certification documents in the AF-approved air quality data management system

- Data collection methods:
  - Using existing appliance information
  - Conducting inspections and research
Improving ODS Procedures

Hill AFB improvements to the existing air quality data management system include:

- Better identification of ODS recovery/recycling equipment
- Increased inspection frequency for refrigerant equipment from annually to semi-annually
- Improved checklists for ODS source inspections
- Identification of refrigerant-containing equipment maintenance contractors to ensure compliance with 40 CFR 82
- Identification of construction projects with new equipment subject to 40 CFR 82
The improved system will house:

- Equipment model numbers and serial numbers
- Charge capacities
- Service dates
- Net refrigerant loss
- Annualized leak rates
- Amounts of refrigerant recovered and added
- Types of refrigerants used
- Technicians’ names
Improving ODS Procedures

The improvements will support:

- Leak rate recordkeeping and reporting
- 5-year records archive:
  - Technician credentials
  - Equipment certifications
  - Equipment maintenance logs
  - Repair reports

Air Conditioning Repair in Progress
Lessons Learned--Risk Reduction

- ODS compliance risks:
  - Maintenance and repair contractors
  - Leak rate calculation and reporting
  - New/Modified appliances
  - Missing technician certification records
- By improving ODS recordkeeping, the AF-approved air quality data management system will reduce risk

Convenience Store Cooler
Summary

- EPA is cracking down on ODS non-compliance
- There are many compliance risks associated with ODS
- To improve ODS data management, Hill AFB is improving their air data management system
- Hill AFB is currently inventorying ODS equipment
- The AF-approved air quality data management system will improve recordkeeping and ease reporting for ODS
Questions?