USAREUR Facilities Class I ODC Elimination Program

Integrating Class I ODC Elimination with Project Programming
USAREUR Facilities Class I ODC Elimination Program

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DA Policy - Elimination of Class I ODCs at Army Installations

- Policy
  - Class I ODCs must be eliminated from all facilities on Army Installations by the end of FY 2003*

- Installation Commanders
  - Responsible for Class I ODC Elimination

- Tenant Commanders
  - Responsible for Complying with Installation Class I ODC Policies

* As of 22 Nov 2002 Elimination of Class I ODC no longer required
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Legal background

– Class I ODCs on USAREUR Installations are restricted by
  • US Federal Laws
  • Army Regulations
  • European Union Guidelines
  • Host Nation Laws
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Legal background

– US-Public Law 102-484
– Final Governing Standards (FGS)
– European Regulations 3613/00 and 2037/00
– German “FCKW Halon-Verbots-Verordnung”
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Background

– USAREUR, ODCSENGR – Environmental Branch
  • Develop plans and funding projects for the elimination of Ozone Depleting Chemicals (Class I ODCs) throughout Europe

– US Army Corps of Engineers, Europe District
  • Contracting Agent
  • Technical Review

– Buchart-Horn GmbH
  • Local Knowledge
  • Environmental Expertise
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• Method
  – Single Task Order
  – USAREUR Wide
  – 3 Major Activities
    • Identification
    • Programming
    • Reporting
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Requirements

– Investigate legal and regulatory background
– Identify Class I ODC containing equipment
– Determine replacement & retrofitting projects
– Estimate replacement removal costs
– Prioritize equipment and prepare plans
– Enter Class I ODC replacement projects into EPR
– Prepare EPR Roll-up files
– Submit Class I ODC Elimination Plans
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Identify Class I ODC Equipment

– The program execution included a prototype phase

• Prototype phase tested
  – initial standards
  – procedures

• Prototype phase allowed the Government Working Group to refine the methodology
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Identify Class I ODC Equipment

– 21 Base Support Battalions (BSB)
– 120+ Installations

• Germany
• Belgium
• Netherlands
• Italy
Identify Class I ODC Equipment

- Inspection
  - Physical inspection
  - Existing record review
- Simultaneous Visits by Survey Teams at each BSBs
- Approximately 1 week per BSB
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Identify Class I ODC Equipment

– Typical equipment
  • Refrigeration
  • Air Conditioning
  • Fire Extinguishing Units
Identify Class I ODC Equipment

– What was found
  • 2900+/- pieces of Class I ODC containing equipment
  • Containing more than 3400 kg (7480 lbs) Class I ODCs
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Typical Equipment

Cooling Unit

Walk-in Fridge
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Typical Equipment

6 Door Refrigerator

Cooling Unit
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Project Programming

– Equipment assessment:
  • Review of maintenance records
    – Maintenance History
    – Leak Rate
    – Class I ODC Refill
    – Other
  • Visible inspection of the units
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Project Programming

– Equipment Condition Assessment Categories
  • Out of operation
  • Poor
  • Average
  • Good
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Project Programming

– Out of operation
  • Replaced
  • Removed

– Poor Condition
  • Retrofitted

– 150 pieces of equipment were replaced or retrofitted
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Project Programming

– Cost Estimating

• Each piece of equipment
• Market Research/Current Prices
• Local Currency
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Project Programming

– Enter Projects into EPR
– Prepare EPR Roll-up files
– Data entry
  • Project information
  • Narrative description
  • Regulatory information
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Reporting

– Elimination Plans each ASGs/BSBs
– Elimination plan contains clear guidance for Class I ODC elimination
  • Responsibilities
  • Procedures
  • Resources
  • requirements
– Developed for use as follow up tool to track Class I ODC elimination
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Reporting

– Elimination Plans consist of 7 Chapters:
  • Information about the Installation
  • Elimination Team
  • Inventory
  • Rules and Regulations
  • Recovery and Turn in
  • Responsibilities
  • Funding Resources
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Summary

- USAREUR, ODCSENGR successfully conducted an integrated Class I ODC inventory and elimination program at 21 BSBs in 4 Countries
- Identification, planning and programming activities were combined into a single task order resulting in
  - Rapid Execution
  - Consistency in Reporting/Procedures
  - Solid Basis for Class II survey and Class I resurvey
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Future Outlook - USAREUR

– Class II ODC Elimination Program
– Verify Progress of Class I Elimination Program
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Integrating Class I ODC Elimination with Project Programming
Retrofitting Work Sequence of Activities

- A valve is attached to the flow tube. Valve remains in place for future use.
- R 12, or R 502 is pumped from the reservoir.
- Oil is removed from the reservoir and filter.
- New oil is installed according to the freon selected.
- Close off oil system and low pressure pump for final refrigerant evacuation.
- The cooling system is then cleaned and dried.
- New freon (R 401a, or R402a) is pumped in.
- Standard practice is to fill the gases removed from the refrigeration unit tanks into separate cylinders. Once full, these cylinders are transported to an incineration facility for destruction.
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Retrofitting Work Sequence of Activities

Typical valve

Typical valve & label
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Retrofitting Work Sequence of Activities

Pump Equipment set up

Pumping ODC to cylinder
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Retrofitting Work Sequence of Activities

Refill unit w/new refrigerant
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Typical Equipment

Centralized cooling facility

Cooling Room