



# Department of Defense Ozone Depleting Substances Reserve



# The DoD Ozone Depleting Substances Reserve



Only Source for Weapon Systems Support

Halons

Refrigerants

Solvents



War Stoppers

# Background



- Montreal Protocol - 1987 - International Agreement to Phase Out Production of ODS
  - Halons and Refrigerants Contain Bromine and Chlorine that Deplete Ozone Layer
- Manufacture Ceased - 1994/1996
- Strict Controls on Imports and Exports
- No Longer Available Locally



# Class I ODSs



Halons  
Fire Suppression  
1202  
1211  
1301



Refrigerants  
Cooling  
R-11            R-12  
R-114          R-500  
R-502



Solvents  
Cleaning  
113  
1,1,1

# Weapon Systems Applications



## Halon

- Armored Vehicle Crew Spaces and Airframe Fire Protection
- Fuel Tank Inerting
- Flight Line Fire Protection

## Refrigerants

- Ship Refrigeration/Cooling
- Electronics Cooling



# Building The Reserve



- Service Requirements
  - Internal Recycling
  - New Acquisitions
- Halon
  - Production Ended 31 Dec 93
  - Anticipated Product Throughput - 10M+ lbs.
- Refrigerants
  - Production Ended 31 Dec 95
  - Anticipated Product Throughput - 10M+ lbs.
- Solvents
  - Shelf-Life Issue
  - Strict Asset Acquisition Control
  - Not Accepting “Used” Product From Customers

# Accessing The Reserve

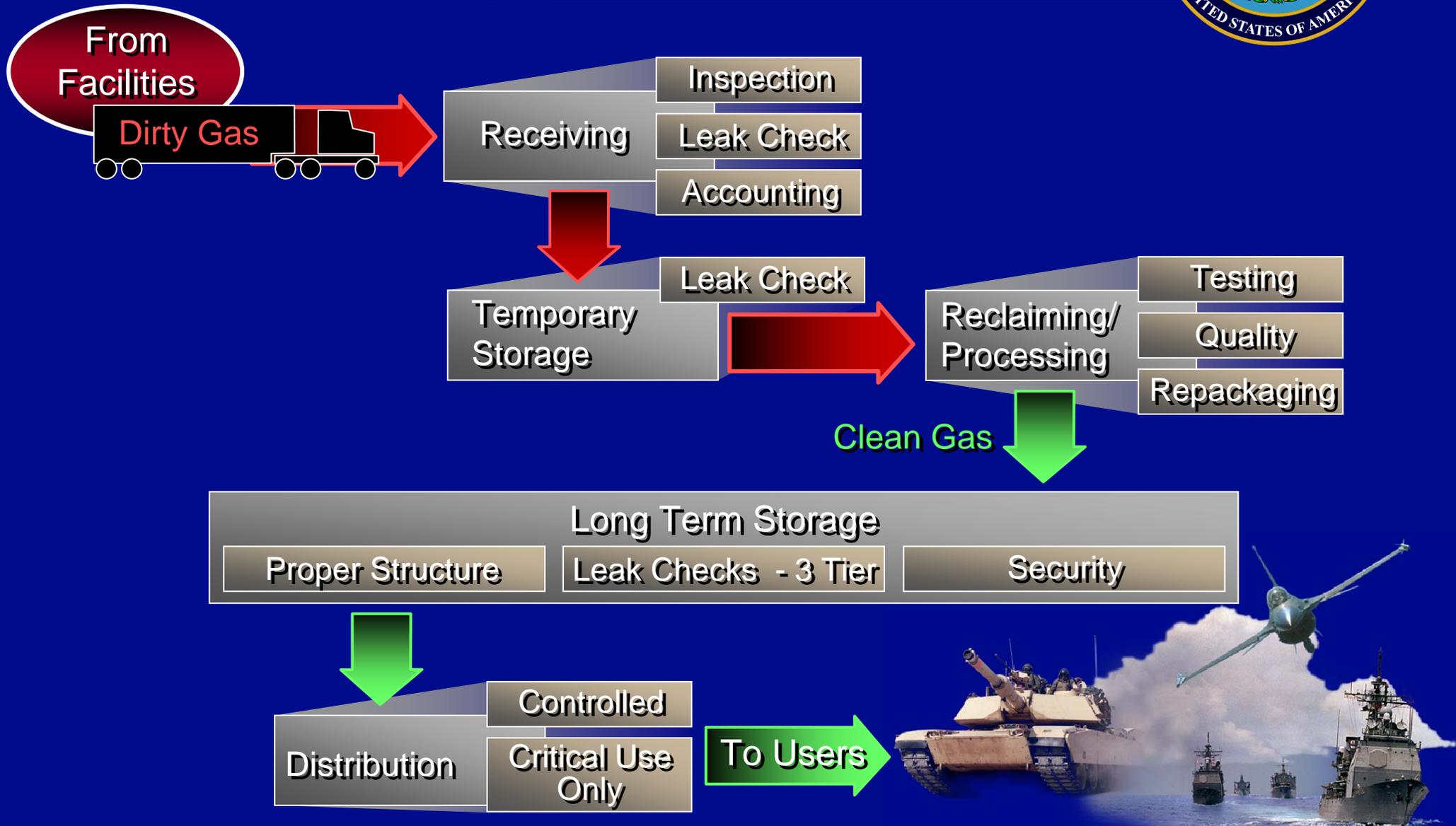


- Combat Activities Authorized by Their Service to Requisition ODS - Free Issue
- Review by Each Service Monthly
- Any Activity Can Requisition Empty Cylinders for Recovery and Turn-In - Free Issue





# Halon Recycling Process



# Receiving Cylinders



## **WARNING**

**A pressurized cylinder is VERY dangerous!  
If discharged and not secured it will become a projectile causing  
death, serious injury, and property damage.  
The cryogenic effect of escaping gas can cause severe burns.**

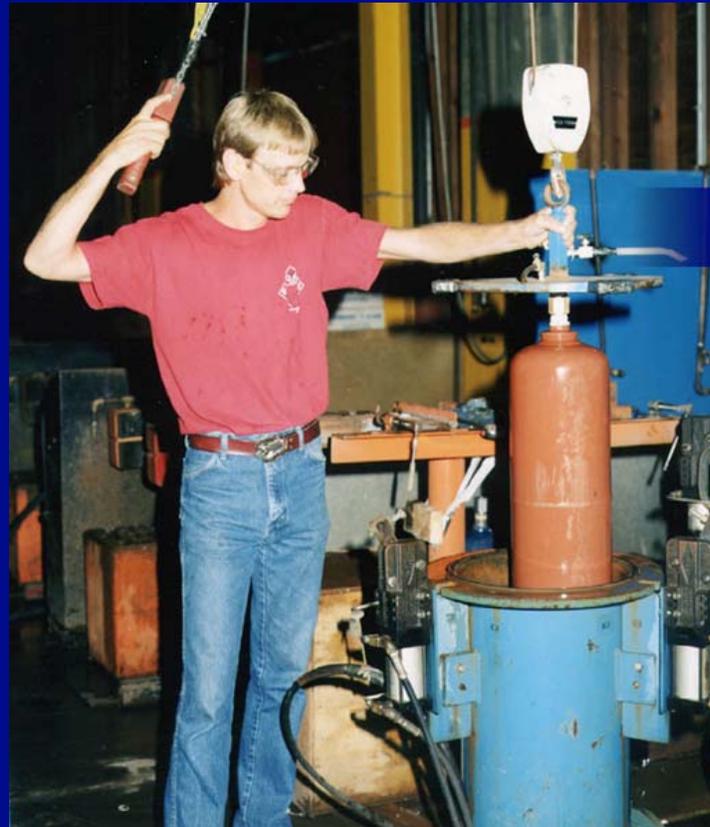
## Important Safety Procedures for Receiving Cylinders

- Use hand-held leak detector check for leaks
- Inspect each cylinder for valve type and integrity
- Always assume cylinder is fully pressurized, regardless of gauge reading!

# Cylinder Reclamation



- Visual Inspection
- Sand Blast
- Prime
- Hydrostatic Test
- Clean Interior
- Pressurize in Chamber
- Check Expansion
- Steam Dry
- Certify Facility & Workers



# Sites



- Operations - Richmond - Operates as a reparable process--Send Us Dirty Halons or Refrigerants...We Provide Clean
- Satellite (Security) Storage
  - Naval Weapons Station Yorktown, VA
  - Defense Depot San Joaquin, CA Sharpe Site
  - AUSTRALIA – 2 Sites
- Consolidation (Turn In) Activities
  - Germany/Netherlands
  - Pearl Harbor
  - Japan



# Lessons Learned



- Priority Mission
- System Cylinders
  - Must be Handled with Strict Adherence to Procedures
  - Safety Guide for Decommissioning Halon Systems
- Leak Monitoring Paramount
- Sharing Knowledge with Foreign Militaries and Countries



# Executing The “Plan”



- Many Battles Won, but the “War Is Not Over”
- Customers - Army, Navy, Air Force, Marines, and Coast Guard Pleased with DLA Performance
- Supply Required to 2048
- Future Inventory Relies on Turn Ins from Non Critical Applications
- Now Accepting R-22 Refrigerant for Post 2020 Critical Uses

# DoD ODS Reserve on DSCR Website



- Web Address

[www.dscr.dla.mil/externalweb/userweb/aviationengineering/ozone/index.htm](http://www.dscr.dla.mil/externalweb/userweb/aviationengineering/ozone/index.htm)

- Turn-In Procedures
- Requisitioning Procedure
- Safe Decommissioning Halon System Cylinders

Halon Specific Guidance

# Summary



- Halon Banking is only one part of a Total Compliance program
- It is also necessary to:
  - Identify Equipment Using ODS
  - Choose Appropriate Replacements
  - Identify Mission Critical Uses
  - Monitor Progress
- Rules are necessary to operate a Halon Bank
  - Limit halon to mission critical uses and control issues
  - Safety, Safety, Safety - Unsecured halon vessels can kill!
  - Leak detection and physical security protect your halon
- Most of the halon you will get, you already own - recycle it!

# ODS Reserve POCs



Commercial 804-279-xxxx

DSN 695-xxxx

Program Manager	- Steve Thien	3064
Sr. Project Officer	- Joe Schmierer	5202
Project Officers:	- Bobby Carwile	5203
	- Alex Stuart	5004
	- John Monroe	6451

## Contract Support

	- Jerry Beasley	1789
	- Vicky Goforth	6102
	- Ron Sibley	4525

Email: [dscr.odsreserve@dla.mil](mailto:dscr.odsreserve@dla.mil)