

# Meeting DNSC's Mercury Challenge



Presented to  
**Mercury Stakeholder Meeting**

**June 14, 2007**

# Briefing Outline

- Who we are
- Stockpile Mercury History
- Mercury Management EIS
- Hawthorne Warehouse

Costs

# *Who We Are...*

- Defense National Stockpile Center (DNSC)
  - Field Activity of Defense Logistics Agency
  - Headquartered at Ft. Belvoir, Va
  - 6 Staffed Depots and 18 storage locations
  
- DNSC operates the *National Defense Stockpile Program*
  - Store and sell metallurgical ores and materials
  - Program established in 1940s to lessen U.S. dependence on foreign sources of supply in times of war or national emergency

# *DNCS's Future*

- Congress determined that NDS is no longer necessary
  - 95% of commodities declared excess
  - Sales totaling \$6.6 Billion since 1993
  - Sales expected to be completed and all storage locations closed by 2020
  - As commodities are sold, the number of storage facilities and employees are reducing per timeline
  - A reconfiguration study is being prepared by the National Academy of Science to determine if a stockpile is required. The Final report is due September 30, 2007

# National Defense Stockpile Mercury

- Commodity grade elemental mercury
- 4, 436 metric tons stockpiled
  - Somerville, New Jersey      2, 617 MT
  - Warren, Ohio                      1, 262 MT
  - New Haven, Indiana              557 MT
- Safely stored for over 50 years
  - Sales discontinued in 1994
  - Mercury Management Environmental Impact Statement (MM EIS) developed to address long-term management

# *DNOSC Mercury Stockpile*

- ▶ No Defense requirement for mercury
- ▶ DNOSC sales suspended in 1994
- ▶ 4,436 metric tons of mercury in inventory
- ▶ Long-term solutions needed for mercury management



# *Mercury Storage*



*Flasks on wooden pallet*

- ▶ 76 lb sealed, steel flasks
- ▶ Wooden pallets
- ▶ Inspected by trained professionals
- ▶ Security measures in place

# *Mercury Stockpile Storage Locations & Quantities*



*New Haven, TN  
557 Metric Tons  
16,151 Flasks*



*Oak Ridge, TN  
699 Metric Tons  
20,276 Flasks*



*Warren, OH  
563 Metric Tons  
16,355 Flasks*



*Somerville, NJ  
2,617 Metric Tons  
75,880 Flasks<sub>8</sub>*

# Production set up



# Empty Drums



# Containment Area WHSE 4E



# Placement Process





6-mil plastic bag

# *Over-packing*



- Inspect
- Clean
- Reflask where necessary
- Overpack everything

# Current Mercury Storage Configuration

- Steel flasks
- Absorbent pads
- Plastic liners
- Epoxy-coated drums
- Drip pans
- Air & liquid tight/locking ring

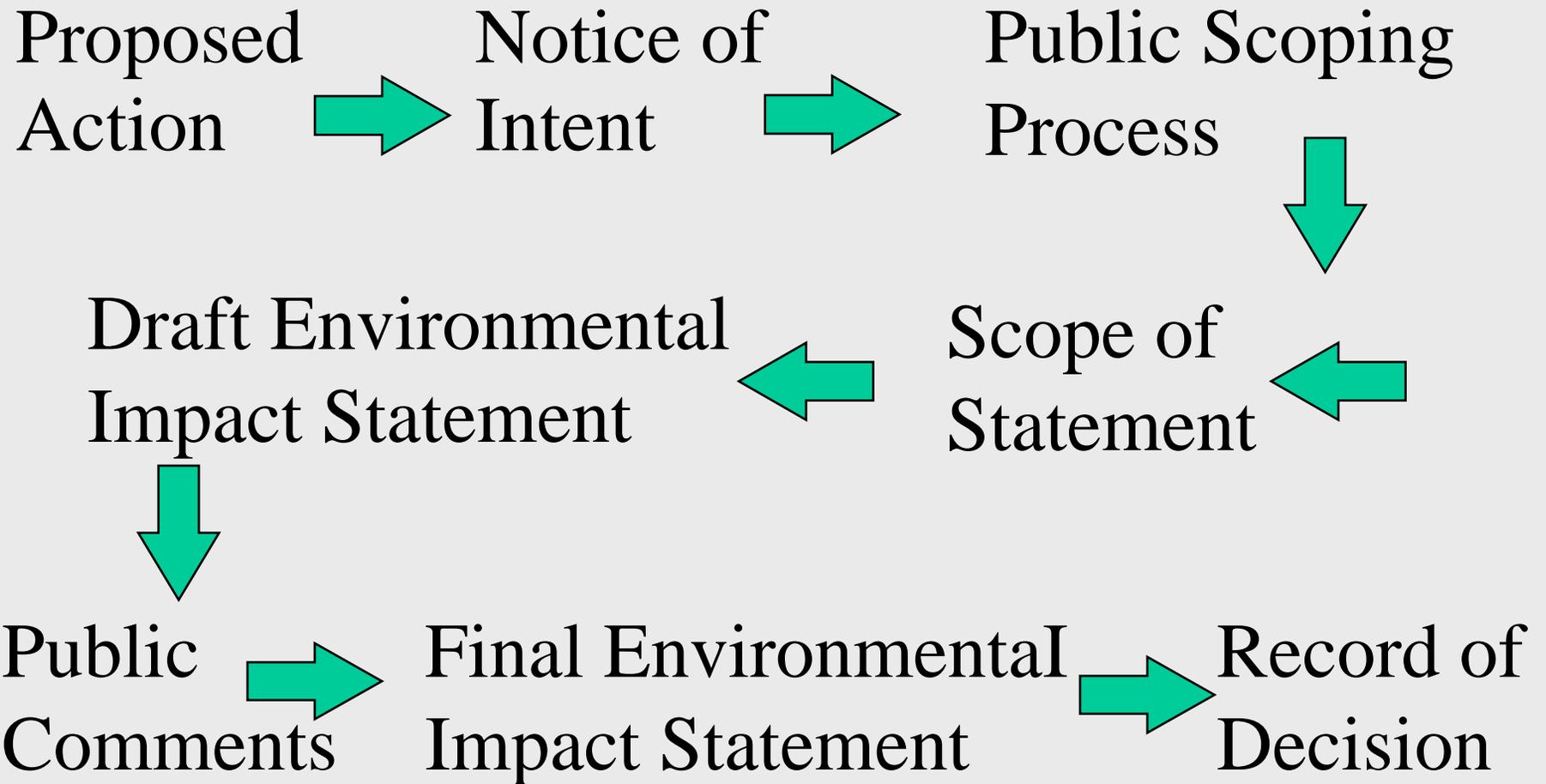


# Mercury Site Requirements

- Sealed warehouse floors
- Regular monitoring
- Adequate lighting
- Fire protection
- Security
- Protective equipment and supplies
- Emergency procedures



# STEPS IN ENVIRONMENTAL IMPACT STATEMENT PROCESS



# MM EIS

- Notice of Intent - February 2001
- Draft EIS - April 2003
  - EPA rating: Lack of Objection
- Final EIS - March 2004
- Record of Decision - April 2004

# MM EIS

## Interagency Working Group

<u>AGENCY</u>	<u>ROLE</u>
• Defense Logistics Agency	Preparer of MMEIS
• U.S. Environmental Protection Agency Federal Activities Pollution Prevention and Toxics	Cooperating Agency
• Department of Energy	Cooperating Agency
• U. S. Public Health Service	Consulting Agency
• U.S. Geological Survey	Consulting Agency
• U.S. Department of Commerce	Consulting Agency

# MM EIS

## Alternatives Analyzed

- No Action  
Maintain status quo
- Consolidated storage at one location  
Long-term storage (40 years)
- Sales  
30 years to sell entire inventory

# **Search for Consolidation Site**

- **DNSC consulted DoD Office of Economic Adjustment**
- **DoD polled military services**
- **DNSC polled Federal land-holding agencies**
  - **Department of Interior**
  - **Department of Agriculture**
  - **General Services Administration**
- **DoD Office of Economic Adjustment**

# **Record of Decision**

## Consolidated Storage-Preferred Alternative

- Safe, long-term management
- Negligible to minor Environmental impacts
- Negligible to low human health risk: economies of scale
- Facilitates DNSC business plans

## Site selection requirements

- Comparable to DNSC storage

# **Selected Location- Hawthorne Army Depot**



# Reasons for Selection

- Government owned facility
- Secure storage
- Trained and experienced staff
- Emergency preparedness plans in place
- Safe long-term storage

# Storage Warehouses



# **Hawthorne Warehouse Modifications**

- **Comparable to DNSC storage**
- **Heat & smoke fire detection system - monitored continuously**
- **Positive contact intrusion detection on all doors, windows & vents - monitored continuously**
- **Floor sealant**
- **Ramped containment dikes**

# **Transportation of Mercury to Hawthorne**

- All shipments will comply with U.S. Department of Transportation requirements for shipment of hazardous materials
- Transportation scheduled to start in early 2007
  - GPS tracking
  - CB radios
  - Cellular telephones
- No announcement of specific shipping dates or routes for security reasons

# **Notification to Nevada Officials**

- **National Environmental Policy Act (NEPA) Notifications**
  - Federal Register Notices
  - Notices of Public Meetings
  - Availability Notices for Draft & Final EIS
- **Other Communications**
  - Meeting/Discussions with Nevada Dept of Conservation & Natural Resources
  - Meetings with Walker River Paiute Tribe
  - Presentations at various conferences

# Document Preparation Costs

# Overpacking Costs

- Pre-overpackaging costs  
(Clean, inspect flasks at New Haven) \$500,000
  - Over-packaging (\$20 per flask) \$2,600,000
  - Purchase 30-gallon drums \$982,000
- Total Overpacking Cost \$4,082,000**

# Current Vs Future Rental Costs

## (Rent + facility Upkeep)

<b>Location</b>	<b>\$/Year</b>	<b>\$/Sq. Ft.</b>	<b>\$/Lb. (Total LB)</b>
• Somerville, NJ	442,055	5.53	0.0766 (5,766,880)
• Warren, OH	292,356	3.65	0.1050 (2,783,956)
• New Haven, IN	271,841	6.80	0.2215 (1,227,476)
• Hawthorne, NV	504,912	3.30	0.0516 (9,778,312)

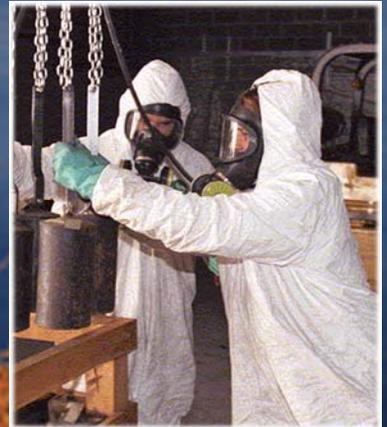
# **DNOSC's Future Responsibilities**

- Mercury is owned by the Department of Defense  
-DNOSC will partner with Hawthorne
- We will comply with all federal, state, and local laws and regulations
- We will monitor to ensure mercury continues to be safely stored

# **DNSC's Commitment**

**We are committed to  
the safety of our employees,  
our communities,  
and the protection of the environment.**

Walker Lake, Hawthorne, Nevada



Handling mercury flasks