



The Problem and Management of Unused and Unneeded chemicals

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March 14, 2006



History of Problem

- Materials in Inventory 1995: 100,000 chemical compounds
- Inspector General Audit Report (1999)
 - UMC, 900,000 tons with potential value over \$100 million
 - Chemicals:
 - **1996:** 22,000 gallons and 3,000 tons
 - **1998:** 40,000 gallons and 2,200 tons



History (cont.)

- Approach fragmented, lack of policy, assignment of organizational responsibility, and systems and resources to manage inventory
- Assign responsibility for disposition or reuse



Strategy for the Management of UMC

12/22/05

- Accountability and Organizational Responsibility
- Site Specific Plans aggregate (acquisition) value >\$50,000
- Annual assessment of the management of UMC
- Reporting (One time reports/Annually)
- Utilization of existing management systems (EADS, GSAccess, Material Exchange Network)





Key Dates in Strategy

September 30, 2006	Inventories of UMCs in place and being maintained
November 15, 2006 and Annually thereafter	Progress Reports to S-3, S-4 or NA-1
September 30, 2011	Complete removal of all UMCs in inventory reported in 2006.



Site Status

Office of Science

Program	Site	No UMCs	UMCs on Site
EE	National Renewable Energy Laboratory	X	
EM	Office of River Protection	X	
	WIPP	X	
	Fernald	X	
	West Valley	X	
	Ashtabula	X	
	Columbus	X	
	Miamisburg	X	
	Moab	X	
	Hanford/Richland	X	
	Savannah River		X
	Paducah/Portsmouth	X	
	Oak Ridge		X
FE	National Energy Technology Laboratory (NETL) Morgantown	X	
	NETL Pittsburg/Albany Research Center	X	
	Strategic Petroleum Reserve (5 locations)	X	
LM	Grand Junction/all sites	X	
NE	Idaho National Laboratory		X
RW	Yucca Mt.	X	
SC	Ames Laboratory	X	
	Argonne National Laboratory		X
	Brookhaven National Laboratory		X
	Fermi National Accelerator Laboratory		X
	Lawrence Berkeley National Laboratory	X	
	Oak Ridge National Laboratory		X
	Oak Ridge Institute for Science and Education	X	
	Princeton Plasma Physics Laboratory	X	
	Pacific Northwest National Laboratory		X
	Stanford Linear Accelerator Center		X
	Thomas Jefferson National Accelerator Facility		X



Highlights from Reports: Sites Characteristics with No UMC

- Single Purpose Sites
- Property Management Programs with annual property management reviews
- Chemical Management Systems In place
- Laboratory reutilization and redistribution
- Walkthroughs
- ES&H involvement in purchases



Sites with UMC

- Chemical Management Systems
- Chemical Exchange/Reuse (ANL, Fermi, INL, SR)
- Management Centers/Virtual Stockroom (ORNL, TJANF)
- Clean Out/Clean Sweep (ORNL, INL, PNNL)
- Chemical Management Services (SLAC)



Chemical Management Services at SLAC

- Central chemical supply chain
 - Site does not stockpile or order excess chemicals
 - Chemicals are ordered on an as-needed basis
 - Comprehensive tracking
 - Facilitating opportunities for lower risk replacements
 - Speeds up delivery



Chemical Management Services at SLAC-Results

- Cost saving for material and chemical purchases \$45,000 to \$65,000
- On time delivery 92% with mission critical at 100%
- Commodity cost reduction 8%
- Scrap and obsolescence rate 0.3 percent



Overall Results

- Many sites have eliminated or are in the process of eliminating excess chemicals (ANL, Fermi)
- 14,000 pounds of chemicals reutilized in 2006 and over 500,000 pounds of chemicals reutilized at SR or transferred to other Federal Agencies 2000-2005
- 5,300 chemical containers identified at INL for disposition
- 1,400 chemicals recycled and 13,300 chemicals dispositioned at ORNL
- 700 chemicals dispositioned at PNNL



Challenges

- Programmatic Ownership and integration of activities across multiple organizations
 - Property, ES&H, Waste Management, Facilities, Program Managers
- Programmatic Priorities (e.g., funding) and maintaining status quo for those sites with NO UMC.
- Enhancing systems currently in place
- Integration of activities across multiple sites (Material Exchange Web Site)



Material Exchange Web Site Modernization

- System will replace existing Material Exchange Web Site
- Co sponsored by DOE/SC and NNSA
- New Passwords
- Upgraded capabilities
 - Posting pictures
 - User control of posted items
 - Expiration of postings



Material Exchange Database User Account Registration

Please complete the registration form below and click the **Register** button to submit your registration. All fields are required except **Middle Initial** and **Subscription**.

First Name:

Middle Initial:

Last Name:

DOE Site:

E-mail Address:

Phone Number:

DOE Employee: NNSA Other DOE

Subscription: Check here if you'd like to subscribe the email notification service.

User ID:

Password:

Confirm Password:

Security Question:

Security Answer:

Register

Cancel



the Exchange

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Home Material Management ► Users ► Web Administration ► My Items Usage ► Success Story ► Logout

The Exchange has been updated, items older than 180 days may be deleted. If you wish to keep items on the Exchange, please contact Arnie Edelman at arnold.edelman@science.doe.gov Check out the Daily Exchange for new listings

Check out the New DOE Materials Disposition Initiative: Please go to [Personal Property Letter 970.4](#)

A Prism Spectrometer Gamma Camera, an ICP mass spectrometer, drum lifters—these are just some of things folks got for free by using The Exchange.

Picture Posting is Now Available.

Check out these and other [SUCCESSFUL EXCHANGES](#) from FY99-FY05.

These items were recently offered up:

- 490 Chemicals Available from Grand Junction Analytical Laboratory
- Storage Casks and Vaults from OR see pictures in listing
- M-60 Solvent Reclamation System from Pantex
- EMD Fluid and Ethylenediamine from ORNL
- Perma Steel Shot from Y-12
- Hydrofluoric Acid from SNLCA
- Cylinder Decontamination Unit from Y-12
- Eu-152 and EU-154 from ORNL
- SR-90 and C-137 Sources from ORNL
- Lift Table Hydraulic (West Valley)
- Supplies (97 items) Y-12
- Janus Fission Converter Plates (BNL)
- HEPA Filters (AEMP)
- 160 100ml Flasks (West Valley)

Do you have excess radiological detection instrumentation? Please go to [Homeland Defense Equipment Reuse Program](#).

Last update: 01/01/06

Exchange Items

Available Items

[Horizontal Mill](#)
[Lathe](#)
[Rotary Table](#)
[Tooling for 50 Taper Spindle](#)
[Depleted uranium alloy](#)
[oil, velocite # 6](#)
[Halon 1211 Portable Fire Extinguishers](#)
[Normal uranium: metal, oxides, and UF₆](#)
[Vermiculite](#)
[Gas Chromatograph Detector](#)

Wanted Items

[A Powerful Notebook](#)
[test item 9](#)
[test item 8](#)
[test item 7](#)
[test item 6](#)
[jb chemical 1](#)
[test item 4](#)
[test item 2](#)



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***Item Type:** Available Wanted

***Item Name:**

Comments:

Item Location:

Category:

Condition:

Quantity:

Value:

Hazmat Stat:

- Hazardous Contaminated
- Hazardous Non-Contaminated
- Non-Hazardous Contaminated
- Non-Hazardous Non-Contaminated

Hazmat Confirm:

- Known
- Unknown, but suspected

Manufacturer:

Expiration Date: (MM/DD/YYYY)

Barcode:

* indicates a required field.

Upload Pictures

Select Picture File:

My Other Posted Items

- [TesterStuff](#)
12/6/2006 4:07:40 PM
Wanted item(Pending)
- [Paper shredder](#)
11/30/2006 5:05:07 PM
Available Item(Draft)
- [whatchamacallit](#)
11/30/2006 11:54:34 AM
Available Item(Draft)
- [Big Ugly Thing](#)
9/27/2006 3:55:32 PM
Available item(Pending)
- [test one](#)
9/6/2006 11:01:10 AM
Available item(Approved)



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Search Criteria

Item Name Keyword <input type="text"/>	Item Description Keyword <input type="text"/>	Item Category Metals	
DOE Site: <input type="text" value="Select a DOE Site"/>			<input type="button" value="Run Filter"/> <input type="button" value="Reset"/>

Item Name	Item Description	Category	Manufacturer	Originator	DOE Site	Item Type	Age
Thisbetterpost	This Better Post	Metals	abc	tester1 Test	National Nuclear Security Administration	Available	152 days
Lathe	Model LB-45, Dimensions 15'long x 8' wide x 8' high, Used for machining D-38, internally contaminated. Purchase price was \$355.235.	Equipment	Okuma	Laurie Farren	Sandia National Laboratories - California	Available	388 days
Bismuth blocks 1x1	We have taken apart an experimental apparatus that was shielded with 1"x1" bismuth blocks, originally about 2 feet long, but bismuth is brittle and many of the pieces are broken into shorter lengths now.	Metals		Diane Rocco	Brookhaven National Laboratory	Available	584 days
Depleted Uranium Metal: Group A3	(Owner: Jan Jackson/Lisa Shope) Large quantities of depleted uranium. Substantial tonnage available. Please request quantities that you are	Metals	Y-12	Lisa Shope	Oak Ridge Y- 12 Plant	Available	713 days



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Item Information

Item Type: Available
 Item Name: **Penske cement mixer**
 Item Description: Big ugly thing that looks like a huge bug and hogs the entire road. You'll love it.
 Item Location: My back yard, to the utter chagrin of the neighbors. Please help them
 Category: Equipment
 Condition: Good
 Manufacturer: Penske
 Quantity: Just one, thank Heaven
 Value: 1999999.99
 Hazmat Stat: Non-Hazardous Non-Contaminated
 Hazmat Confirm: Known
 Barcode: 333
 Expiration Date:
 Post Date: 7/25/2006 4:56:37 PM
 Age(days): 216

Originator Information

First Name: tester1
 Middle Initial:
 Last Name: Test
 Phone Number: 301-903-1165
 Email Address: testuser@test.com
 DOE Site: NNSA
 Site Name: National Nuclear Security Administration

Item Picture



Originator's Other Items

- [Thisbetterpost](#)
Available item
- [New thing](#)
Available item
- [Huge ugly thing](#)
Available item
- [arnie test](#)
Available item
- [My PC](#)
Available item
- [An Old PC](#)
Available item
- [A Powerful Notebook](#)
Wanted item



Questions

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