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OCT 19 2006

Mr. Michael D. Holland
Brookhaven Site Manager
U. S. Department of Energy
Brookhaven Area Office
Upton, NY 11973

Dear Mr. Holland:

Subject: **Unneeded Materials and Chemicals Program – Fiscal Year 2006 Annual Report**

In response to the DOE memo titled "Strategy for the Management of Unneeded Materials and Chemicals" dated December 22, 2005, enclosed is the Brookhaven National Laboratory Annual Report for Fiscal Year 2006.

If you have any questions please feel free to contact John Selva at extension 8611.

Sincerely,

Michael J. Bebon, PE
Deputy Director, Operations

MB/JS: car
cc: G. Goode
R. Lee
J. Selva
J. Tarpinian

File: DH00ER.06

CCTS: CC2006-2965

BROOKHAVEN NATIONAL LABORATORY

STRATEGY FOR THE MANAGEMENT OF UNNEEDED MATERIALS AND CHEMICALS (UMC)

FY2006 UMC ANNUAL REPORT

OCTOBER 2006

Prepared by
BROOKHAVEN NATIONAL LABORATORY
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Managed by
Brookhaven Science Associates for the
U.S. Department of Energy
under contract DE-AC02-98CH10886

TABLE OF CONTENTS

1.0 Introduction

On February 10, 2006, Brookhaven National Laboratory (BNL) was directed by the Brookhaven Site Office to implement the Department of Energy (DOE) Strategy for the Management of Unneeded Materials and Chemicals (UMC) outlined in the December 22, 2005 memorandum from D. Garman, Undersecretary for Energy, Science and Environment. The strategy requires that sites with a UMC inventory aggregate value of greater than $50,000 develop a site-specific plan, inventory and annual report for the management and disposition of UMCs. BNL has identified UMCs at its site valued at greater than $50,000 and is submitting this annual report in satisfaction of this requirement.

2.0 Annual Update on the Inventory of UMCs

The inventory of UMCs was submitted to DOE on September 18, 2006 and identifies a disposition schedule through 2011. The following is BNL's existing UMC inventory and associated disposition cost.

UMC Inventory Summary

	Number of UMC Entries	Cost of Disposition
Equipment	107	$19,250,700
Chemicals	7	$297,000
Total	114	$19,547,700

The disposition cost is spread over five years as follows and is dependent upon successful funding.

UMC Annual Cost Summary

Disposition Schedule	Cost of Disposition
2007	$763,000
2008	$3,424,700
2009	$3,775,000
2010	$3,838,000
2011	$7,747,000

The Cost of Disposition value of $19,547,700 is a reduction from the $44,000,000 value reported in the FY2008-2012 CPR funding request submitted in May 2006. This reduction is attributed to a more focused review of UMC's that was unable to be performed prior to the May submission and a reinterpretation of the definition of a UMC.

3.0 Types and Amounts of UMCs Dispositioned in Previous Fiscal Years

DOE guidance on the UMC Strategy suggested that this report cover the UMC disposition activity during the period of FY 2000-2005 where data was available. The following table is an overall summary of key UMC dispositions during FY 2001 through FY 2005. Information from FY2000 was not available.

Summary of UMC Disposition Activity During Fiscal Years 2001-2005

	Total UMC Dispositions	Cost of Disposition
Equipment	28	$1,596,000
Chemicals	5	$794,000
Total	**33**	**$2,390,000**

Key UMC Dispositions During Fiscal Years 2001 - 2005

UMC Description	2001	2002	2003	2004	2005
Sitewide Nuclear Materials Disposition				$100,000	$200,000
Building 208 Hopper Removal					$20,000
901 Capacitor				$3,000	$20,000
SREL Magnet			$20,000		
Cosmotron magnet pieces (13)			$30,000		
Four Beam separators Pieces			$30,000		
Four old water tankers			$80,000		
Used Lead Shielding	$20,000	$100,000	$10,000		$80,000
Deuterium Tankers					$8,000
Neutrino Horns and Collimators					$30,000
32 Depleted Uranium Blocks			$20,000		
Magnet and aluminum and copper targets			$40,000		
Replacement and disposal of Linac and Siemens PCB capacitors PCB			$10,000	$80,000	$150,000
Mercury contaminated targets and debris		$10,000	$25,000		
Bins of legacy steel and components	$100,000	$120,000	$70,000	$45,000	$25,000
Sitewide Excess Chemical Cleanups	$10,000	$10,000	$272,000	$236,000	$266,000
ISO Containers of beam					$150,000

UMC Description	2001	2002	2003	2004	2005
components and magnets					
Total UMC Investments for Key Projects (Does not represent all project investments)	**$130,000**	**$240,000**	**$607,000**	**$464,000**	**$949,000**

4.0 Description of Program Accomplishments and Materials Reused or Transferred to/from other DOE or Federal Agencies

BNL's UMC Plan identifies several programs for asset disposition for beneficial reuse. The following is a summary of activity associated with each program over the past five years.

BNL Internal Transfers
Initially, assets are offered internally through the BNL Internal Transfers and Equipment Pool. A list of equipment is distributed on a quarterly basis to BNL Property Representatives and the listed assets are available to BNL departments upon request. Over the past five years BNL has transferred 2,101 assets through the property pool.

Energy Asset Disposal System (EADS) / Federal Disposal System (FEDS)
If on-site reuse is unsuccessful the Energy Asset Disposal System (EADS) and Federal Disposal System (FEDS) processes are used. The EADS process enables transfer to other DOE facilities. Items are initially placed in EADS for a 15 day period; if the item is not claimed then the item is transferred into FEDS. The FEDS program first offers the asset to other federal agencies, if a transfer is not completed FEDS then offers the asset to other state and local governments. Over the past five years BNL has transferred 58 assets through FEDS.

Bid4Assets Internet Sales
If an asset is not transferred through EADS/FEDS and is approved for public offering it is listed in the Bid4Assets Internet Sales program. The Bid4Assets program is the last step prior to assets being scrapped. Over the past five years BNL has transferred 134 assets through the Bid4Assets program. BNL also utilizes the GSA Vehicle Auction Program where over 99 vehicles have been transferred over the past five years.

Computers For Learning Program (CFL)
BNL also offers computer equipment through the Computers for Learning Program (CFL) in accordance with Executive Order 12999. FY2006 realized the greatest activity under this program. Approximately seventeen computer systems and five printers were transferred to two local educational institutions.

Chemical Management System

BNL maintains a system that establishes a surplus chemical list for on-site reuse opportunities and advocates judicious purchase and use practices. The system is successful for small internal transfers however the numbers of transfers are not measured.

DOE Materials Exchange

Over the past five years BNL has used the DOE Materials Exchange to advertise assets for reuse. Items such as radiological contaminated tank trucks, potable fire extinguishers (ODS/CFC), and photo processors are routinely posted to the systems website. However, due to the typically unique nature of most items posted BNL has been largely unsuccessful in transferring materials using this system. BNL has however accepted items. In 2001, BNL acquired a Brokk remote tool from another DOE facility.

Pollution Prevention/Waste Minimization/Recycling

These programs consistently benefit the Laboratory and DOE through recycling and source reduction. Each program is reviewed in detail in the BNL Site Environmental Report. The following are two summary tables that show recycling pollution prevention successes over the past five years. A significant amount of additional information on the recycling and pollution prevention program is available upon request.

BNL Recycling Program Summary

Recycled Material	2000	2001	2002	2003	2004	2005
Mixed paper	336	246	209	182	185	193
Cardboard	132	127	157	176	179	143
Bottles/Cans	20	29	19	23	22	22.1
Tires	0	0	3.5	12.3	11	12.8
Construction debris	243	289	304	334	367	350
Used motor oil (gallons)	3,295	3,335	1,920	3,920	3,860	4,590
Metals	534	38	48	193	128	559
Lead	2.5	0	0	–	5	0
Automotive batteries	2.2	4.8	6.3	4.6	5	4.6
Printer/Toner cartridges (units)	–	363	449	187	105	0
Fluorescent bulbs (units)	5,874	17,112	25,067	13,611	12,592	7,930
Blasocut coolant (gallons)	7,500	10,660	8,180	5,030	6,450	3890
Antifreeze (gallons)	110	200	0	165	325	0
Tritium exit signs (each)	185	190	28	181	142	0
Smoke detectors	–	171	40	0	0	0
Road base	–	–	2,016	0	2,666	0
Scrap electronics	–	–	–	–	–	6.1

Notes:
All units are tons unless otherwise noted.
– Denotes not recycled in that year or data not available.

Pollution Prevention Benefits

	POUNDS REDUCED, REUSED, RECYCLED OR CONSERVED	ESTIMATED COST SAVINGS
2000	3,323,715	$2,043,747
2001	1,954,577	$1,385,989
2002	2,073,854	$1,503,621
2003	2,339,314	$1,581,452
2004	2,250,783	$1,717,431
2005	2,786,644	$ 1,018,966
Total	**14,728,887**	**$9,251,206**

5.0 Results of annual DOE assessment related to implementation of the Strategy and Site UMCs Disposition Plans.

A DOE Assessment of the UMC Program at BNL was not performed during FY06.

6.0 Explanation of variances against the annual UMCs disposition plan and performance metrics;

Not applicable for this report period.

7.0 - Identification of Impediments and Challenges to Disposition and Proposed Actions to Eliminate or Overcome Such Impediments and Challenges

The DOE Strategy requires budgeting and funding the disposition of UMCs by 2011. BNL's UMC inventory is large and complex and presents significant challenges in meeting the DOE goal of complete inventory reduction by 2011. One such challenge is the identification of a secure funding path to address each UMC. Historically, disposition of UMCs, which includes the securing of funds, are championed by the responsible directorate or division and are limited by competition for funds for higher priority needs. Competition for funds is typically risk-based, and since most UMCs are stored safely and pose no risk to the public, employees, or environment, the priority of these projects is typically low. This trend is expected to continue, making the 2011 disposition date a very difficult challenge.

The DOE moratorium on recycling suspect scrap metal continues to challenge BNL. The moratorium on recycling has left BNL with few alternatives other than onsite stockpiling or landfill disposition. Landfilling of scrap metal contradicts