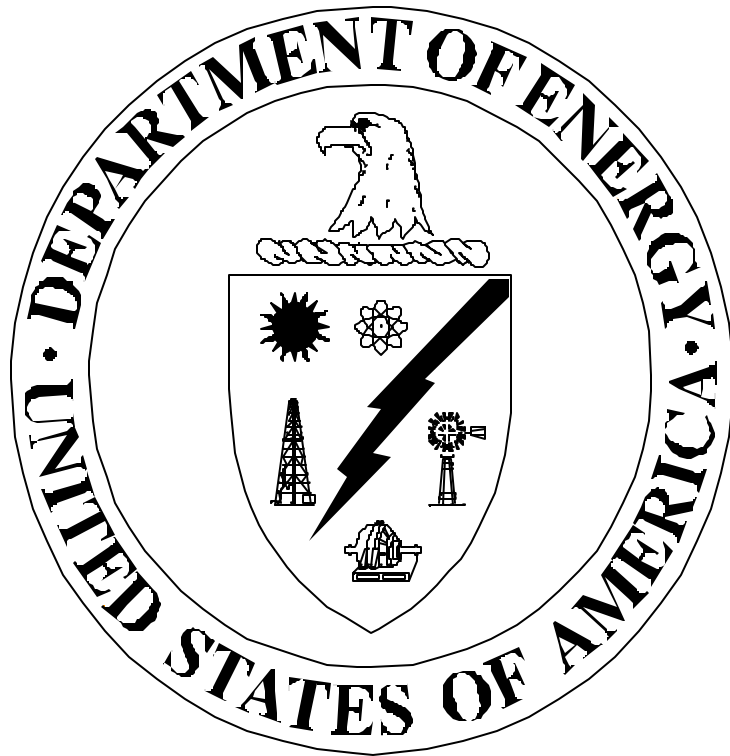


U.S. Department of Energy
Resource Conservation and Recovery Act
(RCRA)/Executive Order 13101
AGENCY SUMMARY REPORT
for Fiscal Year 2001



as required by:

RCRA Section 6002 and Executive Order 13101

*“Greening the Government Through: Waste Prevention,
Recycling, and Federal Acquisition”*

February 13, 2002

EXECUTIVE SUMMARY

The Department of Energy (DOE) continued in Fiscal Year (FY) 2001 to promote the goals of the Resource Conservation and Recovery Act (RCRA) section 6002 and Executive Order 13101 (EO 13101). In addition to its Federal staff, DOE requires its site operating contractors and support service contractors to follow RCRA section 6002 and EO 13101 requirements pertaining to waste prevention, recycling, and affirmative procurement.

The data in the DOE RCRA/EO 13101 Agency Summary Report for FY 2001 reflect purchases of Environmental Protection Agency (EPA)-designated items that were obtained only through non-Federal sources. DOE's purchases from Federal sources of supply, such as the General Services Administration, Government Printing Office, and the Defense Logistics Agency are reported separately by those agencies. The totals of DOE purchases from these sources have been minor in the past when compared to the data reported here.

The purchase data are summarized in two ways (see the following table). First, purchases of EPA-designated items containing recovered materials are compared to total purchases of these items. This yields percentages that reflect the overall effect of DOE purchasing on the recovered-content marketplace. A comparison of purchase data adjusted for allowable exceptions (where the items were cost prohibitive, or where they did not meet performance or availability requirements) is also shown in the table.

In FY 2001, 69 percent of the Department's purchases contained recovered content. The Department's adjusted performance is 87 percent, based upon site justifications that the EPA-designated items were not purchased due to cost, performance, or availability requirements. While these results reflect a modest improvement over FY 2000, when the percentage of recycled content items purchased was 66 percent, and the adjusted performance was 86 percent, it should be noted that the results include the 18 new CPG items, for which green purchasing requirements only began in January 2001 (three months into the fiscal year). For FY 2001, DOE purchased over \$3 million of these new items. About 48 percent of this total includes purchases with recovered content. With adjustments, this percentage increases to 81 percent.

Also, in FY 2001, DOE recycled 112,000 metric tons of solid waste, a slight increase over its FY 2000 recycling total. This is equivalent to the average waste generated by over 150,000 Americans for an entire year, and is particularly significant given that for the last year the Department has placed a moratorium on recycling scrap metal coming out of radiological areas, to ensure that contaminated metal does not reach the public.

FY 2001 DOE PURCHASES OF EPA-DESIGNATED PRODUCTS

Product	Total	w/ recovered content	% w/ recovered content	Adjusted Total	Adjst % w/ recovered content
Paper	\$ 17,665,856	\$ 14,363,404	81%	\$ 15,946,452	90%
Uncoated Printing Papers	\$ 8,605,996	\$ 6,471,346	75%	\$ 7,251,957	89%
Commercial Sanitary Tissue	\$ 6,394,310	\$ 5,913,162	92%	\$ 6,279,765	94%
Bristols	\$ 1,553,141	\$ 1,173,127	76%	\$ 1,452,922	81%
Paperboard, Packaging	\$ 644,137	\$ 530,327	82%	\$ 592,343	90%
Coated Printing Papers	\$ 251,594	\$ 113,324	45%	\$ 182,742	62%
Miscellaneous Paper Products	\$ 122,674	\$ 92,816	76%	\$ 92,821	100%
Newsprint	\$ 94,004	\$ 69,302	74%	\$ 93,902	74%
Construction	\$ 6,188,061	\$ 4,050,023	65%	\$ 4,393,951	92%
Building Insulation Products	\$ 265,553	\$ 200,296	75%	\$ 229,218	87%
Carpet	\$ 1,099,564	\$ 684,439	62%	\$ 750,304	91%
Carpet Cushion**	\$ 17,630	\$ 16,205	92%	\$ 16,205	100%
Cement and Concrete	\$ 4,175,006	\$ 2,886,383	69%	\$ 2,966,821	97%
Latex Paint	\$ 289,545	\$ 32,185	11%	\$ 129,692	25%
Floor Tiles	\$ 167,412	\$ 74,127	44%	\$ 141,415	52%
Flowable Fill**	\$ 78,383	\$ 78,383	100%	\$ 78,383	100%
Laminated Paperboard*	\$ 45,000	\$ 45,000	100%	\$ 45,000	100%
Patio Blocks*	\$ 2,610	\$ 2,610	100%	\$ 2,610	100%
Railroad Grade Crossng Sfcs**	\$ 552	\$ 552	100%	\$ 552	100%
Shower and Restroom Dividers	\$ 31,224	\$ 19,014	61%	\$ 19,014	100%
Structural Fiberboard	\$ 15,582	\$ 10,829	69%	\$ 14,737	73%
Non-Paper Office	\$ 8,221,479	\$ 4,896,895	60%	\$ 5,975,069	82%
Binders	\$ 1,039,379	\$ 332,775	32%	\$ 533,271	62%
Office Recycling Containers	\$ 39,020	\$ 37,821	97%	\$ 38,090	99%
Office Waste Receptacles	\$ 23,874	\$ 7,583	32%	\$ 18,049	42%
Plastic Clip Portfolios**	\$ 454	\$ 290	64%	\$ 432	67%
Plastic Clipboards**	\$ 1,207	\$ 577	48%	\$ 688	84%
Plastic Desktop Accessories	\$ 234,514	\$ 88,996	38%	\$ 150,299	59%
Plastic Envelopes	\$ 29,493	\$ 29,027	98%	\$ 29,152	100%
Plastic File Folders**	\$ 23,789	\$ 20,034	84%	\$ 21,037	95%
Plastic Presentation Folders**	\$ 56,026	\$ 31,668	57%	\$ 45,024	70%
Plastic Trash Bags	\$ 1,203,634	\$ 1,055,212	88%	\$ 1,063,452	99%
Printer Ribbons	\$ 32,219	\$ 7,578	24%	\$ 7,921	96%
Solid Plastic Binders**	\$ 357	\$ 178	50%	\$ 178	100%
Toner Cartridges	\$ 5,537,513	\$ 3,285,156	59%	\$ 4,067,476	81%
Vehicular	\$ 1,015,888	\$ 188,033	19%	\$ 422,569	44%
Motor Vehicle Oil	\$ 221,463	\$ 98,443	44%	\$ 188,666	52%
Engine Coolants	\$ 28,167	\$ 819	3%	\$ 14,999	5%
Tires	\$ 766,258	\$ 88,771	12%	\$ 218,904	41%
Transportation	\$ 88,834	\$ 79,146	89%	\$ 79,146	100%
Channelizers*	\$ 0	\$ 0	NA	\$ 0	NA
Delineators*	\$ 9,165	\$ 8,673	95%	\$ 8,673	100%
Flexible Delineators*	\$ 30	\$ 0	0%	\$ 0	NA
Parking Stops*	\$ 6,428	\$ 6,428	100%	\$ 6,428	100%
Traffic Barriers*	\$ 63,923	\$ 55,423	87%	\$ 55,423	100%
Traffic Cones	\$ 9,288	\$ 8,622	93%	\$ 8,622	100%
Landscape	\$ 77,190	\$ 6,258	8%	\$ 6,258	100%
Compost**	\$ 67,405	\$ 2,340	3%	\$ 2,340	100%
Garden and Soaker Hoses*	\$ 1,823	\$ 0	0%	\$ 0	NA
Hydraulic Mulch*	\$ 0	\$ 0	NA	\$ 0	NA
Landscaping Timbers & Posts**	\$ 7,962	\$ 3,918	100%	\$ 3,918	100%
Lawn and Garden Edging*	\$ 0	\$ 0	NA	\$ 0	NA
Park and Recreation	\$ 14,574	\$ 14,574	100%	\$ 14,574	100%
Park Benches & Picnic Tables**	\$ 9,574	\$ 9,574	100%	\$ 9,574	100%
Plastic Fencing*	\$ 5,000	\$ 5,000	100%	\$ 5,000	100%
Playground Equipment**	\$ 0	\$ 0	NA	\$ 0	NA
Playground Surfaces*	\$ 0	\$ 0	NA	\$ 0	NA
Running Track*	\$ 0	\$ 0	NA	\$ 0	NA
Miscellaneous	\$ 3,051,141	\$ 1,455,126	48%	\$ 1,855,909	78%
Awards and Plaques**	\$ 135,060	\$ 97,621	72%	\$ 98,452	99%
Industrial Drums**	\$ 1,979,367	\$ 965,482	49%	\$ 1,001,946	96%
Manual-Grade Strapping**	\$ 30,173	\$ 4,636	15%	\$ 24,699	19%
Mats**	\$ 38,009	\$ 6,899	18%	\$ 22,867	30%
Pallets	\$ 288,650	\$ 153,806	53%	\$ 231,774	66%
Signage**	\$ 407,099	\$ 196,648	48%	\$ 329,832	60%
Sorbents**	\$ 172,783	\$ 30,034	17%	\$ 146,339	21%
Totals	\$ 36,323,023	\$ 25,053,459	69%	\$ 28,693,928	87%

NA=Not Applicable

Adjusted total equals total purchases minus the justified purchases of virgin-content items.

Adjusted percentage with recovered content = recovered content purchases divided by adjusted total.

* Incomplete data: not all sites reporting. Reporting not required as DOE purchased less than \$10,000 of the item in FY 2000, or not required based on Section I. P. of the FY 2001 RCRA Report.

** New items (18 in all) in FY 2001.

Date Due: March 15, 2002

Date Prepared: February 13, 2002

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA)

Agency Report for Fiscal Year 2001

Agency or Department: Department of Energy

Agency Contact: Susan Weber
Office of Environmental Management
Office of Technical Program Integration
Pollution Prevention Team (EM 22.3)

Telephone Number: 301-903-1388

E-Mail Address: Susan.Weber@em.doe.gov

I. EPA Guideline Items Designated Prior to January, 2000

- A. Cement and Concrete
GSA will provide data for agencies' purchases of cement or concrete from its stock program. Please provide amounts for agency purchases from other sources, including GSA schedule contracts.

Note: DOE does not track cement separately from concrete.

1. Does your agency purchase cement and/or concrete (directly or through contracts, e.g., construction contracts)? **Yes X No** ____ If no, skip to section I.B.
2. Total amount¹ of cement purchased and/or used by your agency in FY 2001 **\$4,175,006** and/or _____ cubic yards, and/or total number of contracts awarded that require the use of cement _____.

Amount of cement containing coal fly ash and/or ground granulated blast furnace slag purchased and/or used by your agency in FY 2001

¹"Total amount" equals the amount of product without recovered materials plus the amount of product with recovered materials.

\$2,886,383 and/or _____ cubic yards, and/or total number of contracts awarded that require the use of cement containing coal fly ash or ground granulated blast furnace slag _____.

3. Total amount of concrete purchased and/or used by your agency in FY 2001 \$_____ and/or _____ cubic yards, and/or total number of contracts awarded that required the use of concrete _____.

Amount of concrete containing coal fly ash and/or ground granulated blast furnace slag purchased and/or used by your agency in FY 2001 \$_____ and/or _____ cubic yards, and/or total number of contracts awarded that required the use of concrete containing coal fly ash or ground granulated blast furnace slag _____.

4. Were there technical impediments to increasing the amount of concrete or cement containing coal fly ash and/or ground granulated blast furnace slag purchased by your agency in FY 2001? **Yes X No** ____ (If yes, please attach an explanation of the technical impediments.) **See Attachment A.**

B. Paper and Paper Products

GSA will provide data for agencies' purchases of paper products made through its stock programs, and GPO will provide data for its purchases on behalf of agencies. Please provide amounts for agency purchases from other sources, including GSA schedule contracts.

1. Total dollar amount of paper and paper products purchased by your agency from sources other than GSA and GPO in FY 2001 **\$17,665,856.**
2. Dollar amount of paper and paper products containing recovered materials² purchased by your agency from sources other than GSA and GPO in FY 2001 **\$14,363,404.**

²The products designated by EPA are commonly referred to as "CPG-items" or "recycled content products." RCRA refers to them as "products containing recovered materials," which is the term used in this reporting document unless a more specific term, such as re-refined oil or retread tires, is used.

- C. Motor Vehicle Lubricating Oils
DLA will provide data for agencies' purchases of oil through the Defense Supply Center Richmond's re-refined oil programs. Please provide amounts for agency purchases from other sources.
1. Does your agency purchase engine lubricating oil (directly or through vehicle maintenance contracts, leases, or other mechanisms)? **Yes X No ___** If no, skip to section I.D.
 2. Total amount of motor vehicle lubricating oil purchased by your agency in FY 2001 **\$221,463**. (If your vehicle maintenance is accomplished through service contracts that include a standard price for vehicle servicing, report the total number of servicing(s) rather than the dollar value. - **Not Applicable**)
 3. Dollar amount of motor vehicle lubricating oils containing re-refined oil purchased by your agency in FY 2001 **\$98,443**. (If your vehicle maintenance is accomplished through service contracts that include a standard price for vehicle servicing, report the total number of services where the vehicle was serviced with re-refined oil rather than the dollar value. - **Not Applicable**)
 4. Were there any technical impediments to increasing the amount of motor vehicle lubricating oils containing re-refined oil purchased by your agency in FY 2001? **Yes X No ___** (If yes, please attach an explanation of the technical impediments.) **See Attachment B.**

- D. Tires
TACOM will provide data for agencies' purchases of tires for military tactical vehicles. Please provide amounts for agency purchases of tires from other sources, including GSA schedule contracts.

1. Does your agency purchase tires (directly or through a services contract)? **Yes X No ___** If no, skip to section I.E.
2. Total dollar amount of tires purchased by your agency in FY 2001 **\$766,258**.
3. Dollar amount of retread tires purchased by your agency in FY 2001 **\$88,771** or dollar amount of tire retreading services **\$0**.
4. Were there any technical impediments to increasing the amount of

retread tires purchased by your agency in FY 2001? **Yes X No** ____
(If yes, please attach an explanation of the technical impediments.)
See Attachment C.

E. Building Insulation Products
GSA will provide data for agencies' purchases of building insulation products from its stock program. Please provide amounts for agency purchases from other sources, including GSA schedule contracts.

1. Does your agency purchase building insulation products (directly or through contracts, e.g., construction contracts)? **Yes X No** ____ If no, skip to section I.F.
2. Total dollar amount of building insulation products purchased by your agency in FY 2001 **\$265,553** or total number of contracts awarded that required the use of building insulation products_____.
3. Dollar value of building insulation products containing recovered materials purchased by your agency in FY 2001 **\$200,296** or total number of contracts awarded that required the use of building insulation products containing recovered materials _____.
4. Were there any technical impediments to increasing the amount of building insulation products containing recovered materials purchased by your agency in FY 2001? **Yes X No** ____ (If yes, please attach an explanation of the technical impediments.) **See Attachment D.**

F. Engine Coolants

1. Does your agency purchase engine coolants (directly or through vehicle maintenance contracts, leases, or other mechanisms)? **Yes X No** ____ If no, skip to section I.G.
2. What percentage of your fleet maintenance facilities own and operate engine coolant recycling equipment? **50 percent**
3. Total dollar amount of engine coolant purchased by your agency in FY 2001 **\$28,167.**
4. Dollar amount of engine coolant containing recovered materials purchased by your agency in FY 2001 **\$819.**

5. Were there any technical impediments to increasing the amount of engine coolant containing recovered materials purchased by your agency in FY 2001? **Yes X No** ____ (If yes, please attach an explanation of the technical impediments.) **See Attachment E.**

G. Structural Fiberboard and Laminated Paperboard

GSA will provide data for agencies' purchases of structural fiberboard and laminated paperboard from its stock program. However, please provide amounts for agency purchases from other sources, including GSA schedule contracts.

1. Does your agency purchase structural fiberboard or laminated paperboard (directly or through contracts, e.g., construction contracts)? **Yes X No** ____ If no, skip to section I.H.
2. Total dollar amount of structural fiberboard and laminated paperboard purchased by your agency in FY 2001 **\$60,582** or total number of contracts awarded that required the use of structural fiberboard and/or laminated paperboard _____.
3. Dollar amount of structural fiberboard and laminated paperboard containing recovered materials purchased by your agency in FY 2001 **\$55,829** or total number of contracts awarded that required the use of structural fiberboard and/or laminated paperboard containing recovered materials _____.
4. Were there technical impediments to increasing the amount of structural fiberboard and laminated paperboard containing recovered materials purchased by your agency in FY 2001? **Yes X No** ____ (If yes, please attach an explanation of the technical impediments.) **See Attachment F.**

H. Traffic Cones and Traffic Barricades (rubber or plastic only)

GSA will provide data for agencies' purchases of traffic cones and traffic barricades from its stock program. Please provide amounts for agency purchases from other sources, including GSA schedule contracts.

1. Does your agency purchase traffic cones and/or traffic barricades (directly or through a services contract)? **Yes X No** ____ If no, skip to section I.I.

2. Total dollar amount of traffic cones and traffic barricades purchased by your agency in FY 2001 **\$73,211**.
3. Dollar amount of traffic cones and traffic barricades containing recovered materials purchased by your agency in FY 2001 **\$64,045**.
4. Were there any technical impediments to increasing the amount of traffic cones and traffic barricades containing recovered materials purchased by your agency in FY 2001? **Yes X No ___** (If yes, please attach an explanation of the technical impediments.) **See Attachment G.**

I. Plastic Desktop Accessories

GSA will provide data for agencies' purchases of plastic desktop accessories from its stock program. Please provide amounts for agency purchases from other sources, including GSA schedule contracts.

1. Does your agency purchase plastic desktop accessories? **Yes X No ___** If no, skip to section I.J.
2. Total dollar amount of plastic desktop accessories purchased by your agency in FY 2001 **\$234,514**.
3. Dollar amount of plastic desktop accessories containing recovered materials purchased by your agency in FY 2001 **\$88,996**.
4. Were there any technical impediments to increasing the amount of plastic desktop accessories containing recovered materials purchased by your agency in FY 2001? **Yes X No ___** (If yes, please attach an explanation of the technical impediments.) **See Attachment H.**

J. Toner Cartridges

GSA and DLA will provide data for agencies' purchases of toner cartridges and remanufactured toner cartridges through their stock programs. However, please provide amounts for agency purchases from other sources, including GSA schedule contracts.

1. Does your agency purchase toner cartridges (directly or through contracts e.g., office equipment maintenance)? **Yes X No ___** If

no, skip to I.K.

2. Total dollar amount of toner cartridges purchased by your agency in FY 2001 **\$5,537,513**.
3. Total dollar amount of remanufactured toner cartridges purchased by your agency in FY 2001 **\$3,285,156** or toner cartridge remanufacturing services **\$122,415**.
NOTE: The \$122,415 was not included in the summary table.
4. Were there any technical impediments to increasing the amount of remanufactured toner cartridges purchased by your agency in FY 2001? **Yes X No** ____ (If yes, please attach an explanation of the technical impediments.) **See Attachment I.**

K. Binders (chipboard, pressboard, and plastic covered, not cloth)
GSA will provide data for agencies' purchases of binders from its stock program. Please provide amounts for agency purchases from other sources, including GSA schedule contracts.

1. Does your agency purchase binders (directly or through contracts)? **Yes X No** ____ If no, skip to I.L.
2. Total dollar amount of binders purchased by your agency in FY 2001 **\$1,039,379**.
3. Dollar amount of chipboard, pressboard, and plastic covered binders containing recovered materials purchased by your agency in FY 2001 **\$332,775**.
4. Were there any technical impediments to increasing the amount of binders containing recovered materials purchased by your agency in FY 2001? **Yes X No** ____ (If yes, please attach an explanation of the technical impediments.) **See Attachment J.**

L. Carpet (low and medium wear polyester fiber only)

1. Does your agency purchase polyester carpet (directly or through contracts, e.g., construction contracts)? **Yes X No** ____ If no, skip to section I.M.

2. Provide any pertinent information to demonstrate your agency's compliance/commitment to purchasing low and medium wear polyester carpet in FY 2001. This information could include dollars spent, number of contracts, policies issued, pilot projects, etc.
Total dollars spent on carpet: \$1,099,564
Dollars spent on carpet with recovered materials: \$684,439
3. Were there any technical impediments to increasing the amount of polyester carpet containing recovered materials purchased by your agency in FY 2001? **Yes X No** ____ (If yes, please attach an explanation of the technical impediments.) **See Attachment K.**

M. Floor Tiles (rubber or plastic only)

1. Does your agency purchase rubber or plastic floor tiles (directly or through contracts, e.g., construction contracts)? **Yes X No** ____ If no, skip to section I.N.
2. Provide any pertinent information to demonstrate your agency's compliance/commitment to purchasing rubber or plastic floor tiles in FY 2001. This information could include dollars spent, number of contracts, policies issued, pilot projects, etc.
Total dollars spent on floor tiles: \$167,412
Dollars spent on floor tiles with recovered material: \$ 74,127
3. Were there any technical impediments to increasing the amount of rubber or plastic floor tiles containing recovered materials purchased by your agency in FY 2001? **Yes X No** ____ (If yes, please attach an explanation of the technical impediments.) **See Attachment L.**

N. Office Recycling and Waste Containers (plastic, paper or steel)
GSA will provide data for agencies' purchases of office recycling containers and waste containers from its stock program. Please provide amounts for agency purchases from other sources, including GSA schedule contracts.

1. Does your agency purchase office recycling containers and/or waste containers (directly or through contracts, e.g., janitorial services, waste management)? **Yes X No** ____ If no, skip to section I.O.
2. Provide any pertinent information to demonstrate your agency's

compliance/commitment to purchasing office recycling and waste containers containing recovered materials in FY 2001. This information could include dollars spent, number of contracts, policies issued, pilot projects, etc.

Total dollars spent on office recycling and waste containers: \$62,893

Dollars spent on office recycling and waste containers with recovered materials: \$45,404

3. Were there any technical impediments to increasing the amount of office recycled containers or waste containers containing recovered materials purchased by your agency in FY 2001? **Yes X No ___** (If yes, please attach an explanation of the technical impediments.) **See Attachment M.**

O. Plastic Trash Bags

GSA will provide data for agencies' purchases of plastic trash bags from its stock program. Please provide amounts for agency purchases from other sources, including GSA schedule contracts.

1. Does your agency purchase plastic trash bags (directly or through contracts, e.g., janitorial services)? **Yes X No ___** If no, skip to I.P.
2. Provide any pertinent information to demonstrate your agency's compliance/commitment to purchasing plastic trash bags containing recovered materials in FY 2001. This information could include dollars spent, number of contracts, policies issued, pilot projects, etc.

Total dollars spent on plastic trash bags: \$1,203,634

Dollars spent on plastic trash bags with recovered materials: \$1,055,212

3. Were there any technical impediments to increasing the amount of plastic trash bags containing recovered materials purchased by your agency in FY 2001? **Yes X No ___** (If yes, please attach an explanation of the technical impediments.) **See Attachment N.**

P. Other Products Designated Prior To January, 2000

EPA also designated consolidated and reprocessed latex paint, shower and restroom dividers/partitions, patio blocks (rubber or plastic), garden and soaker hoses, hydraulic mulch, compost made from yard trimmings, lawn and garden edging, playground surfaces and running tracks, plastic

envelopes, printer ribbons, plastic fencing, parking stops, channelizers, delineators, flexible delineators, and pallets. Based on the results of past years' data which show no or low purchases of these products, reporting of dollar amounts spent on these products is not required.

For any of these products that your agency purchased in FY 2001, provide anecdotal examples of how your agency promoted the procurement of these products containing recovered materials. Examples could include contract and/or solicitation language developed to require the use of these products, changes to policies, or summaries of projects that incorporated the purchase of these products containing recovered materials.

Total dollars spent for these items: \$695,693

Dollars spent for these items with recovered materials: \$264,321

See attached spreadsheet for item-by-item breakdown.

II. Specifications

RCRA section 6002(d) requires that Federal activities that have responsibility for preparing specifications (1) review them to eliminate unnecessary requirements for the use of virgin materials and prohibitions against using recovered materials and (2) add preferences for the use of products containing recovered materials.

- A. Does your agency have responsibility or control over a particular Federal supply class or group of specifications or standards?
Yes X No ____ If no, skip to section III.
- B. How many product specifications, standards, Commercial Item Descriptions (CIDs), product descriptions or similar documents does your agency control? **Number - varies by DOE site**
- C. Prior to FY 2001, did you complete review and revision of your specifications and standards documents for products designated by EPA prior to January, 2000? **Yes X No** ____ If yes, skip to II.G.
If no, how many such documents were reviewed in FY 2001?
Number _____
- D. How many documents were modified in FY 2001 to remove the requirements for the use of virgin materials? **Number** _____
- E. How many documents were modified in FY 2001 to remove references of language prohibiting the use of recovered materials?
Number _____

- F. How many documents were modified in FY 2001 to add preferences for products containing recovered materials? **Number** _____
- G. Does your agency have a policy to remove the requirements for virgin materials and add preferences for EPA-designated products containing recovered materials in service contracts (e.g, the use of re-refined oil in vehicle service contracts or the use of tissue and towel products containing recovered materials in janitorial services contracts). **Yes X No** ____ If yes, please append an example to your report.
See <http://www.doep2.org/ap/AL2000-03.wpd>
- H. If your agency does not have a policy to meet the RCRA requirements to revise specifications, explain why not.

III. EPA Guideline Items Designated In January, 2000

On January 19, 2000, EPA designated 18 additional products containing recovered materials. Under RCRA section 6002, procuring agencies were required to begin purchasing these products beginning in January 2001.

- A. Carpet Cushion
(EPA designated carpet cushion made from bonded polyurethane, jute, synthetic fibers, or rubber containing recovered materials.)
1. Does your agency purchase this product (directly or through contracts)? **Yes X No** ____ If no, skip to section III.B.
 2. Does your agency have responsibility for or control over specifications for this product? **Yes X No** ____ If yes, were the specifications revised to eliminate requirements for the use of virgin materials and/or to permit the use of recovered materials?
Yes - 9 sites; No - 7 sites If no, provide an explanation of why not.
See Attachment O.
 3. Provide any pertinent information to demonstrate your agency's compliance/commitment to purchasing carpet cushion containing recovered materials in FY 2001. This information could include dollars spent, number of contracts, policies issued, pilot projects, etc.
Total dollars spent on carpet cushion: \$17,630
Dollars spent on carpet cushion

with recovered materials: \$16,205

4. Were there any technical impediments to purchasing carpet cushion containing recovered materials in FY 2001? **Yes X No ___** (If yes, please attach an explanation of the technical impediments.) **See Attachment P.**

B. Flowable Fill

(EPA designated flowable fill containing coal fly ash and/or ferrous foundry sands.)

1. Does your agency purchase this product (directly or through contracts)? **Yes X No ___** If no, skip to section III.C.
2. Does your agency have responsibility for or control over specifications for this product? **Yes X No ___** If yes, were the specifications revised to eliminate requirements for the use of virgin materials and/or to permit the use of recovered materials? **Yes - 5 sites; No - 9 sites** If no, provide an explanation of why not. **See Attachment Q.**
3. Provide any pertinent information to demonstrate your agency's compliance/commitment to purchasing flowable fill containing coal fly ash and/or ferrous foundry sands in FY 2001. This information could include dollars spent, number of contracts, policies issued, pilot projects, etc.
Total dollars spent on flowable fill: \$78,383
Dollars spent on flowable fill with recovered materials: \$78,383
4. Were there any technical impediments to purchasing flowable fill containing coal fly ash and/or ferrous foundry sands in FY 2001? **Yes ___ No X** (If yes, please attach an explanation of the technical impediments.)

C. Railroad Grade Crossing Surfaces

(EPA designated railroad grade crossing surfaces containing coal fly ash, recovered rubber, or recovered steel.)

1. Does your agency purchase this product (directly or through contracts)? **Yes X No ___** If no, skip to section III.D.
2. Does your agency have responsibility for or control over specifications for this product? **Yes X No ___** If yes, were the

specifications revised to eliminate requirements for the use of virgin materials and/or to permit the use of recovered materials?

Yes - 7 sites; No - 0 sites If no, provide an explanation of why not.

3. Provide any pertinent information to demonstrate your agency's compliance/commitment to purchasing railroad grade crossing surfaces containing recovered materials in FY 2001. This information could include dollars spent, number of contracts, policies issued, pilot projects, etc.

Total dollars spent on railroad grade crossing surfaces: \$552

Dollars spent on railroad grade crossing surfaces

With recovered materials: \$552

4. Were there any technical impediments to purchasing railroad grade crossing surfaces containing recovered materials in FY 2001? **Yes** ___ **No X** (If yes, please attach an explanation of the technical impediments.)

- D. Park Benches and Picnic Tables
(EPA designated park benches and picnic tables containing recovered steel, aluminum, plastic, or concrete.)

1. Does your agency purchase these products (directly or through contracts)? **Yes X** **No** ___ If no, skip to section III.E.
2. Does your agency have responsibility for or control over specifications for these products? **Yes X** **No** ___
If yes, were the specifications revised to eliminate requirements for the use of virgin materials and/or to permit the use of recovered materials?
Yes - 9 sites; No - 3 sites If no, provide an explanation of why not.
See Attachment R.

3. Provide any pertinent information to demonstrate your agency's compliance/commitment to purchasing park benches and picnic tables containing recovered materials in FY 2001. This information could include dollars spent, number of contracts, policies issued, pilot projects, etc.

Total dollars spent on park benches and picnic tables: \$9,574

Dollars spent on park benches and picnic tables with recovered content: \$9,574

4. Were there any technical impediments to purchasing park benches and picnic tables containing recovered materials in FY 2001? **Yes** ___ **No X** (If yes, please attach an explanation of the technical impediments.)

E. Playground Equipment

(EPA designated playground equipment containing recovered plastic, steel, or aluminum.)

1. Does your agency purchase this product (directly or through contracts)? **Yes** ___ **No X** If no, skip to section III.F.
2. Does your agency have responsibility for or control over specifications for this product? **Yes** ___ **No** ___ If yes, were the specifications revised to eliminate requirements for the use of virgin materials and/or to permit the use of recovered materials? **Yes** ___ **No** ___ If no, provide an explanation of why not.
3. Provide any pertinent information to demonstrate your agency's compliance/commitment to purchasing playground equipment containing recovered materials in FY 2001. This information could include dollars spent, number of contracts, policies issued, pilot projects, etc.
4. Were there any technical impediments to purchasing playground equipment containing recovered materials in FY 2001? **Yes** ___ **No** ___ (If yes, please attach an explanation of the technical impediments.)

F. Compost

(EPA amended the compost designation to add compost made from food waste.)

1. Does your agency purchase this product (directly or through contracts)? **Yes X** **No** ___ Does your agency operate a composting facility at any of its installations? **Yes - 2 sites** **No** ___ If no to both, skip to section III.G.
2. Provide any pertinent information to demonstrate your agency's compliance/commitment to purchasing compost made from food waste or establishing a food waste composting facility in FY 2001. This information could include dollars spent, number of contracts, policies issued, pilot projects, etc.

Total dollars spent on landscaping, soil amendment, or soil reclamation materials: \$67,405

Dollars spent on food waste/yard trimmings compost: \$2,340

3. Were there any technical impediments to purchasing compost made from food waste or composting food waste in FY 2001? **Yes X No** ____ (If yes, please attach an explanation of the technical impediments.) **See Attachment S.**

G. **Plastic Lumber Landscaping Timbers and Posts**
(EPA designated plastic lumber landscaping timbers and posts containing recovered materials.)

1. Does your agency purchase these products (directly or through contracts)? **Yes X No** ____ If no, skip to section III.H.
2. Does your agency have responsibility for or control over specifications for this product? **Yes X No** ____ If yes, were the specifications revised to eliminate requirements for the use of virgin materials and/or to permit the use of recovered materials? **Yes - 8 sites; No - 5 sites** If no, provide an explanation of why not. **See Attachment T.**
3. Provide any pertinent information to demonstrate your agency's compliance/commitment to purchasing plastic lumber landscaping timbers and posts in FY 2001. This information could include dollars spent, number of contracts, policies issued, pilot projects, etc.

Total dollars spent on plastic lumber timbers and posts: \$7,962

Dollars spent on plastic lumber timbers and posts with recovered materials: \$3,918

4. Were there any technical impediments to purchasing plastic lumber landscaping timbers and posts in FY 2001? **Yes X No** ____ (If yes, please attach an explanation of the technical impediments.) **See Attachment U.**

H. **Solid Plastic Binders, Plastic Clipboards, Plastic File Folders, Plastic Clip Portfolios, and Plastic Presentation Folders**

(EPA amended the binder designation to include solid plastic binders containing recovered plastic. EPA also designated plastic clipboards, file folders, clip portfolios, and presentation folders containing recovered plastic.)

GSA will provide data for agencies' purchases of these products from

its stock program. Please provide data for purchases of these products from other sources, including GSA schedule contracts.

1. Does your agency purchase these products (directly or through contracts)? **Yes X No ___** If no, skip to section III.I.
2. Does your agency have responsibility for or control over specifications for this product? **Yes X No ___** If yes, were the specifications revised to eliminate requirements for the use of virgin materials and/or to permit the use of recovered materials? **Yes ___ No ___** If no, provide an explanation of why not.

	Yes - Revised	No - Not Revised
Binders	11 sites	5 sites
Clipboards	11 sites	4 sites
File Folders	13 sites	5 sites
Clip Portfolios	11 sites	5 sites
Present. Folders	10 sites	5 sites

See Attachment V for site explanations for not revising specifications.

3. Provide any pertinent information to demonstrate your agency's compliance/commitment to purchasing plastic office products containing recovered plastic in FY 2001. This information could include dollars spent, number of contracts, policies issued, pilot projects, etc.
Total dollars spent on these items: \$81,833
Dollars spent on these items with recovered content: \$52,747
See attached spreadsheet for item-by-item breakdown
4. Were there any technical impediments to purchasing plastic office products containing recovered plastic in FY 2001? **Yes X No ___** (If yes, please attach an explanation of the technical impediments.) **See Attachment W.**

- I. Adsorbents and Absorbents
 (EPA designated sorbents containing recovered materials for use in oil and solvent clean-ups and as animal bedding. "Sorbents" includes both adsorbents and absorbents.)
GSA will provide data for agencies purchases of sorbents from its stock program. Provide data for sorbents purchased from other

sources, including GSA schedule contracts.

1. Does your agency purchase sorbents (directly or through contracts)? **Yes X No ___** If no, skip to section III.J.
2. Does your agency have responsibility for or control over specifications for this product? **Yes X No ___** If yes, were the specifications revised to eliminate requirements for the use of virgin materials and/or to permit the use of recovered materials? **Yes - 9 sites; No - 5 sites** If no, provide an explanation of why not. **See Attachment X.**
3. Provide any pertinent information to demonstrate your agency's compliance/commitment to purchasing sorbents containing recovered materials in FY 2001. This information could include dollars spent, number of contracts, policies issued, pilot projects, etc. **Total dollars spent on adsorbents and absorbents: \$172,783**
Dollars spent on adsorbents and absorbent with recovered materials: \$30,034
4. Were there any technical impediments to purchasing sorbents containing recovered materials in FY 2001? **Yes X No ___** (If yes, please attach an explanation of the technical impediments.) **See Attachment Y.**

J. Industrial Drums

(EPA designated industrial drums containing recovered steel, plastic, or paper.)

1. Does your agency purchase this product (directly or through contracts)? **Yes X No ___** If no, skip to section III.K.
2. Does your agency have responsibility for or control over specifications for this product? **Yes X No ___** If yes, were the specifications revised to eliminate requirements for the use of virgin materials and/or to permit the use of recovered materials? **Yes - 12 sites; No - 5 sites** If no, provide an explanation of why not. **See Attachment Z.**
3. Provide any pertinent information to demonstrate your agency's compliance/commitment to purchasing industrial drums containing recovered materials in FY 2001. This information could include

dollars spent, number of contracts, policies issued, pilot projects, etc.
Total dollars spent on industrial drums: \$1,979,367
Dollars spent on industrial drums
with recovered content: \$ 965,482

4. Were there any technical impediments to purchasing industrial drums containing recovered materials in FY 2001? **Yes X No** ____ (If yes, please attach an explanation of the technical impediments.) **See Attachment AA.**

K. Awards and Plaques
(EPA designated awards and plaques containing recovered glass, wood, paper, or plastic.)

1. Does your agency purchase these products (directly or through contracts)? **Yes X No** ____ If no, skip to section III.L.
2. Does your agency have responsibility for or control over specifications for this product? **Yes X No** ____ If yes, were the specifications revised to eliminate requirements for the use of virgin materials and/or to permit the use of recovered materials?
Yes - 11 sites; No - 6 sites If no, provide an explanation of why not.
See Attachment AB.
3. Provide any pertinent information to demonstrate your agency's compliance/commitment to purchasing awards and plaques containing recovered materials in FY 2001. This information could include dollars spent, number of contracts, policies issued, pilot projects, etc.
Total Dollars spent on awards and plaques: \$135,060
Dollars spent on awards and plaques with recovered materials: \$97,621
4. Were there any technical impediments to purchasing awards and plaques containing recovered materials in FY 2001? **Yes X No** ____ (If yes, please attach an explanation of the technical impediments.)
See Attachment AC.

L. Mats
(EPA designated mats containing recovered rubber and/or plastic.)

1. Does your agency purchase this product (directly or through contracts)? **Yes X No** ____ If no, skip to section III.M.
2. Does your agency have responsibility for or control over specifications for this product? **Yes X No** ____ If yes, were the specifications revised to eliminate requirements for the use of virgin materials and/or to permit the use of recovered materials?
Yes - 8 sites; No - 6 sites If no, provide an explanation of why not.
See Attachment AD.
3. Provide any pertinent information to demonstrate your agency's compliance/commitment to purchasing mats containing recovered materials in FY 2001. This information could include dollars spent, number of contracts, policies issued, pilot projects, etc.
Total dollars spent on mats: \$38,009
Dollars spent on mats with recovered materials: \$6,899
4. Were there any technical impediments to purchasing mats containing recovered materials in FY 2001? **Yes X No** ____ (If yes, please attach an explanation of the technical impediments.) **See Attachment AE.**

M. Signs, Sign Supports, and Posts
(EPA designated non-road signs containing recovered plastic or aluminum; road signs containing recovered aluminum; and sign supports and posts containing recovered plastic or steel.)

1. Does your agency purchase these products (directly or through contracts)? **Yes X No** ____ If no, skip to section III.N.
2. Does your agency have responsibility for or control over specifications for these products? **Yes X No** ____ If yes, were the specifications revised to eliminate requirements for the use of virgin materials and/or to permit the use of recovered materials?
Yes - 11 sites; No - 4 sites If no, provide an explanation of why not.
See Attachment AF.
3. Provide any pertinent information to demonstrate your agency's compliance/commitment to purchasing signs and sign supports and posts containing recovered materials in FY 2001. This information could include dollars spent, number of contracts, policies issued, pilot projects, etc.

**Total dollars spent on signs, sign supports,
and posts: \$ 407,099**
**Dollars spent on signs, sign supports, and posts
with recovered content: \$196,648**

4. Were there any technical impediments to purchasing signs, sign supports, or sign posts containing recovered materials purchased by your agency in FY 2001? **Yes X No ___** (If yes, please attach an explanation of the technical impediments.) **See attachment AG.**

N. Manual-Grade Strapping
(EPA designated manual-grade strapping containing recovered steel or plastic.)

1. Does your agency purchase this product (directly or through contracts)? **Yes X No ___** If no, skip to section IV.
2. Does your agency have responsibility for or control over specifications for this product? **Yes X No ___** If yes, were the specifications revised to eliminate requirements for the use of virgin materials and/or to permit the use of recovered materials? **Yes - 8 sites; No - 4 sites** If no, provide an explanation of why not. **See Attachment AH.**
3. Provide any pertinent information to demonstrate your agency's compliance/commitment to purchasing manual-grade strapping containing recovered materials in FY 2001. This information could include dollars spent, number of contracts, policies issued, pilot projects, etc.
Total dollars spent on manual-grade strapping: \$30,173
Dollars spent on manual-grade strapping with recovered materials: \$4,636
4. Were there any technical impediments to purchasing manual-grade strapping containing recovered materials in FY 2001? **Yes X No ___** (If yes, please attach an explanation of the technical impediments.) **See Attachment AI.**

IV. Solid Waste Prevention

Please report solid waste prevention efforts for facilities for which your agency is

responsible.

Note: For DOE, solid waste includes construction and demolition debris.

- A. Did you institute new solid waste prevention practices in FY 2001?
Yes X No ____
- B. If the response is Yes, please provide an explanation of those practices.
See Attachment AJ.
- C. If the response is No, please provide an explanation of why not. **See Attachment AK.**

V. Recycling

- A. What percentage of the offices/sites operated by your agency have an active office products recycling program? **92 Percent**
- B. What percentage of residential housing operated by your agency has an active household products recycling program? **100 Percent**
- C. What percentage of demolition projects managed by and/or contracted by your agency includes the recovery of construction materials?
78 Percent ____ **Not Applicable**
- D. What percentage of the total solid waste³ generated by your agency was diverted to recycling? **52 Percent**

Note: For DOE, solid waste includes construction and demolition debris.

VI. Miscellaneous

- A. Did your agency establish an internal awards program in a previous year?
Yes X No ____ If yes, skip to VI.B. If no, was an internal awards program established in FY 2001, per the requirements of Executive Order 13101?
Yes ____ **No** ____

If yes, please provide a description of the awards program. If no, provide an explanation of why an internal awards program has not been established.

- B. Did your agency establish guidance for your purchase card holders in a

³“Solid waste” refers to municipal solid waste as defined by EPA. Please indicate if your agency is including other materials, such as construction and demolition debris.

previous year? **Yes X No** ____ If yes, skip to VI.C. If no, was guidance and training on the E.O. 13101 requirements provided to purchase card holders in FY 2001? **Yes** ____ **No** ____

If yes, please provide a description of the purchase card guidance or append a copy to this report. If no, provide an explanation of why there is no agency purchase card training on E.O. 13101 and green purchasing.

- C. In FY 2001, did your agency participate in a pilot project to purchase environmentally preferable products or services per the requirements of E.O. 13101? **Yes X No** ____

If yes, please describe each EPP pilot project and its status. If no, provide an explanation of why your agency did not participate in an environmentally preferable products and services pilot project per the requirements of E.O. 13101. **See Attachment AL.**

- D. Non-CPG Products

Provide any pertinent information about your agency's FY 2001 purchases of products containing recovered materials other than the products designated by EPA in the CPG. An example is remanufactured modular office furniture. This information could include a summary of a project in which the product(s) were used, dollars spent, number of contracts, policies issued, pilot projects, etc. **See Attachment AM.**

Attachment A Technical Impediments for Cement and Concrete

Argonne National Laboratory-East

The Laboratory employees responsible for purchasing these items preferred items containing virgin materials.

Bettis Atomic Power Laboratory

Concrete at the Naval Reactors Facility only, was purchased with no recycled additives because locally available (Idaho) slag, fly ash, etc., have elevated background radiation levels due to naturally occurring radioactivity in the additives and could not be used in a radiological storage area.

Fluor Hanford

Engineering assessments have concluded that cement and concrete containing fly ash/blast furnace slag do not meet organization requirements due to slow setup and or cure time during inclement weather months.

Idaho National Engineering and Environmental Laboratory (INEEL)

No activity for cement and concrete containing blast furnace slag. INEEL does not specify the use of concrete w/blast furnace slag because it contains radioactive constituents and does not pass INEEL survey testing. Blast furnace slag is considered to be contaminated for INEEL purposes and does not meet our site's reasonable performance expectations. Furthermore research has shown that this type of concrete mix is not readily available in this part of the country.

Dollar amount of cement without coal fly ash reflects the tracking of standard builders post mix purchases (also known as "Portland cement"). These pre-mix bags of cement are not sold w/ recovered material content.

Knolls Atomic Power Laboratory

Use of cement containing fly ash or blast furnace slag does not meet performance specifications for use in colder weather.

Lawrence Berkeley National Laboratory (LBNL)

Construction companies bid small construction jobs (such as pouring pads) using the best price for concrete. Berkeley Lab specifications with EPA recycled content items apply to large projects. Concrete at LBNL typically contains fly ash. The amount varies--depending on the individual mix design.

Lawrence Livermore National Laboratory

Local suppliers do not have the capabilities of producing the product with fly ash or slag. They don't have the silos. The cement does contain recycled sand.

Los Alamos National Laboratory

The fly ash that is available to the Laboratory increases the alkali-silica reactivity with the volcanic aggregate that is native to this area. Alkali-silica reactions in concrete lead to degradation of concrete strength and longevity.

Rocky Flats Environmental Technology Site

Fly ash additive slows curing and does not meet performance standards during winter months.

Savannah River Site

Currently under review by DOE-Savannah River and the contractor to evaluate cost of implementation of a system in Fiscal Year 2002 to achieve compliance.

Strategic Petroleum Reserve

This small purchase did not contain fly ash nor did the job specifications encourage the use of fly ash.

Western Area Power Administration

In some areas over Western's 15 state area where concrete was needed for construction at a site, the concrete suppliers did not have fly ash or blast furnace slag available. Depending upon the local of individual construction sites from year to year, the amount of concrete with recovered material content will always vary.

Yucca Mountain Site Characterization Project Office (YMP)

Cement used by the YMP is produced locally by several vendors. There are no industrial processes that generate flyash or blast furnace slag locally, thus cement meeting Executive Order 13101 is not available locally. To purchase cement containing recycled material would require importing the product at a greater transportation cost.

Attachment B Technical Impediments for Motor Vehicle Oil

Bettis Atomic Power Laboratory

The oil purchased with required specific grades and viscosity weight were unavailable with re-refined oil. Re-refined hydraulic oil for use in heavy equipment was unavailable in small quantities. In another instance, using re-refined oil would void the engine warranty on the heavy equipment. We will continue to check the market place for re-refined oil that meets these specific requirements.

Fluor Hanford

Not all required types of lubricating oils/products were available within scheduled periods of usage, or available with the required recovered content.

Idaho National Engineering and Environmental Laboratory (INEEL)

INEEL fleet operations purchases the majority of its vehicular lubricating oils through the Defense Supply Center Richmond (DSCR), closed-loop program. Total dollars spent w/ DSCR for re-refined lubricating oils was approx. \$170,000.00.

Virgin lubricating oils are purchased for INEEL's liquid natural gas (LNG) buses and pick-ups. The manufacturers warranty of LNG vehicles specifically preclude the use of re-refined lubricating oils. Other reasons for use of virgin lubricating oil include:

- 1) better pricing was obtained from a local provider for bulk 5w-30 oil.
- 2) virgin lubricating oils are being used in non-vehicular applications such as emergency generators, incinerator, and for machine shop equipment.

Knolls Atomic Power Laboratory

Re-refined lubricating oil is not available locally and the cost is higher to obtain it from non-local sources.

Lawrence Berkeley National Laboratory

Special Vactra, DTE, and 2-cycle motor oils were required for unique engine applications and these were not available with recycled content.

Sandia National Laboratory-California

Maintenance does not think re-refined lubricating oil meets the requirements and warranty of the equipment

Santa Susanna Energy Technology Engineering Center

Hilly and rough terrain requires maximum performance.

Savannah River Site

Currently under review by DOE-Savannah River and the contractor to evaluate cost of implementation of a system in Fiscal Year 2002 to achieve compliance.

Southwestern Power Administration

Vehicles are utilized in an off-road environment. It was determined that re-refined oil is a safety hazard while driving in these off-road conditions.

Strategic Petroleum Reserve

Virgin purchases of lubricating oil totaled \$3,784.94. This virgin oil was purchased for the following reasons: some equipment requires virgin-only lubricating oil in order to maintain the manufacturer's warranty or heavy weight speciality oil could not be found as recycled.

Thomas Jefferson National Accelerator Facility

We only operate General Services Administration (GSA) vehicles. All vehicular data reported by GSA.

Western Area Power Administration

Some servicing vendors at some locations do not offer re-refined lubricating oil.

Y-12 National Security Complex (Y-12)

The Y-12 Garage has tested 1030 re-refined oils and determined that the re-refined oils breakdown under extreme heat conditions. The majority of the fleet vehicles are not driven under normal driving conditions. Vehicles are driven an average 2-3 miles with excessive idle speed that causes the oil to heat up and break down. The garage has changed the purchase of oil to only one type that is purchased in bulk (\$4.00/gallon) and used on all vehicles and equipment. The current oil is 1540 and is not readily available at the bulk cost in re-refined from the vendor. Used oil is currently bulked and sent to an off-site recycler and/or used in a heater that burns waste crankcase oil for heat in the garage facility. The vendor was contacted in August 2001, and the requirements for Y-12 to use re-refined oils and lubricants were discussed. The vendor was also asked about the availability of 1540 grade re-refined oil. The vendor stated that 1540 grade is not readily available in bulk and to do so would cost a considerable amount - at least equivalent to more than the virgin. The vendor also stated that the 1540 grade re-refined oils also breaks down under extreme heat conditions and did not advise its use in vehicles not driven in normal driving conditions.

Yucca Mountain Site Characterization Project Office

Re-refined motor oils were not readily available locally, especially in quantity, early in the year. Additionally, investigations need to be completed before the YMP initiates a change-over, from well known, proven lubricants, to re-refined products, especially with the extremes of temperature that equipment are exposed to in a desert environment.

Attachment C Technical Impediments for Retread Tires

Argonne National Laboratory-East

The item made with recovered materials is not available at a reasonable price.

Bettis Atomic Power Laboratory

Retread tires (solid rubber) for forklifts and scooter tires are unavailable in the local market place. In another case, the Safety Department disallows the use of pneumatic retread tires on forklifts used to lift hazardous material. We will continue to check the market place for retread tires that meet our specifications.

Brookhaven National Laboratory

Most tires purchased for this site are passenger tires. There are few vendors who sell automobile retread tires. Most sizes are unavailable and prices average 5\$-8\$ more per tire.

Fermi National Accelerator Laboratory

Retreads tend to be non-stock items. In particular for cars and mini vans. Lead times for most truck sizes are 2-3 weeks. Light truck retreads have proven hard to balance and we have had cases in which the casings have been unacceptable.

Fluor Hanford

Majority of vehicle fleet is governed by General Services Administration (GSA) regulations, often prohibiting the use of retreaded tires. The widespread use of metric sizes also hinders attempts to utilize.

Idaho National Engineering and Environmental Laboratory (INEEL)

All tires used at the INEEL, both new and retread, are purchased through General Services Administration (GSA) contracts.

Knolls Atomic Power Laboratory (KAPL)

Six tires were purchased for a grader and retread tires do not meet KAPL performance specifications for heavy equipment.

Lawrence Berkeley National Laboratory

Retread tires are not available for special purpose industrial vehicles.

Lawrence Livermore National Laboratory (LLNL)

The administrative cost of tracking, purchasing and storing retreads for the wide variety of vehicles at LLNL makes purchasing retreads not cost effective. LLNL purchases retreads for large trucks only.

Oak Ridge National Laboratory

Retread tires for passenger vehicles are not cost competitive.

Pantex Plant

Reference a U. S. General Services Administration (GSA) letter, titled: Retread Tires, dated October 22, 2001. The letter states that "At this time, after careful consideration of all factors affecting the local use of retread tires, the Amarillo Fleet Office has determined that retread tires will not be purchased for GSA-owned vehicles leased to DOE-Pantex."

Rocky Flats Environmental Technology Site

Wackenhut Services site requirement (performance standard) for new tires to be used on guard vehicles. Retread tires not available.

Sandia National Laboratory-New Mexico

Sandia National Laboratories Fleet Services Department is responsible for Sandia's Fleet and the Department of Energy Office of Transportation Safeguards (OTS) Fleet. Due to conflicting safety requirements the OTS fleet is unable to purchase retread tires. Additionally retread tires for small carts, industrial and commercial vehicles are currently not available through our vendor due to the inability in meeting performance requirements.

Southwestern Power Administration

Vehicles are used off-road in hazardous conditions. Determination was made that retread tires are a safety hazard and will not be purchased at this time.

Strategic Petroleum Reserve (SPR)

Tires not purchased as retread were for the following reasons: 1) a retread could not be procured of the correct size 2) bought in an emergency (quick time frame) during an oil movement or other event. Note: A source of retread tires for small scooter size tires (11-15") has never been found. The total amount spent on small scooter tires was \$8,452.71. The remainder of purchases were for trucks, cherry pickers or other SPR vehicles.

Thomas Jefferson National Accelerator Facility

We only operate General Services Administration (GSA) vehicles. All vehicular data reported by GSA.

Western Area Power Administration

Western has a policy to not purchase retread tires for non-passenger vehicles due to a lack of federal standards for retread tires for non-passenger vehicles (8/30/00 Policy/issue paper, 11/29/00 memorandum).

Y-12 National Security Complex (Y-12)

There is a contract in place with a recycle vendor to take back used cores and replace with a retread for a nominal fee. However, the vendor has refused the used cores due to the heavy use and condition of the tires after use. This has resulted in a \$90 core charge per tire for retreads. In addition, there is a considerable amount of time required to change a retread tire as compared to a virgin tire (3:1 ratio) (0.5 vs. 1.5 hr at ~\$50/hr). The retreads do not line up and fit easily, thus additional time and manpower are required to change the tires. All of the used tires are sent to a recycle vendor; however, the purchase of retreads for Y-12 has not been cost effective. Also, the vendor was contacted in August 2001. Retread tires are not available for the Heavy Earth Moving Equipment in this area. Therefore, the vendor does not supply retreads for this equipment.

Yucca Mountain Site Characterization Project Office (YMP)

Passenger vehicles and small trucks operated by the YMP are owned and maintained by the General Services Administration (GSA); all applicable records are maintained and incorporated into GSA reports. In many cases, truck and heavy equipment tires provided to the YMP are, or may be, retread as a normal course of business. YMP record keeping has not been specifically differentiating between the purchase/delivery of virgin versus retread tires, but the YMP is investigating improvements to purchasing and tracking the use of retread tires for trucks and heavy equipment.

Attachment D Technical Impediments for Building Insulation Products

Argonne National Laboratory-East

The item made with recovered materials is not available competitively within a reasonable period of time.

Fluor Hanford

Recycled product was not available within the time frame prior to utilization schedule of the product.

Idaho National Engineering and Environmental Laboratory (INEEL)

Subcontractor was unable to obtain recovered material content building insulation for a particular construction job that had a tight time frame for completion - subcontractor provided virgin content insulation (in stock at local supplier) that allowed INEEL to meet its project deadlines.

The following 4 types of insulation are not used in construction specifications at the INEEL:

- 1) rock wool - fiberglass insulation is used as opposed to rock wool because it is less expensive and has the same performance characteristics.
- 2) cellulose loose fill - this insulation is considered combustible, although treated w/ a fire retardant. INEEL does not allow the use of combustible insulation unless enclosed by Sheetrock. Enclosure by sheetrock is not cost effective and still has the potential for combustibility.
- 3) foam-in-place - also considered combustible and required to be enclosed by sheetrock.
- 4) phenolic rigid foam - this insulation is not manufactured in the united states and does not meet reasonable performance expectations. Phenolic rigid foam accelerates the corrosion of steel when it comes in contact with water.

Lawrence Berkeley National Laboratory (LBNL)

Insulation is normally required for quick repairs to LBNL facilities and there is insufficient time to formally solicit for products containing recovered material. LBNL developed a specification for use of designated EPA items for construction projects and this is being used for purchases of insulation and other EPA items by subcontractors for major construction projects.

Los Alamos National Laboratory

Insulation with recovered material not available competitively within a reasonable period of time, at a reasonable price, and that met performance requirements.

Pacific Northwest National Laboratory

\$35 of the purchases were allowed exceptions because in this small quantity recycled insulation was not available in our area.

Sandia National Laboratory-New Mexico

At this time all construction related material purchased at Sandia is purchased by sub-contractors.

Savannah River Site

Currently under review by DOE-Savannah River and the contractor to evaluate cost of implementation of a system in Fiscal Year 2002 to achieve compliance.

Attachment E Technical Impediments for Engine Coolants

Bettis Atomic Power Laboratory

Bettis continues to experience excessive corrosion problems with reclaimed engine coolant, accordingly, virgin coolant was purchased.

Idaho National Engineering and Environmental Laboratory (INEEL)

INEEL fleet operations uses propylene glycol engine coolants in buses and vehicles, but only about 300-400 gallons of new engine coolant is purchased annually. The life of thousands of gallons of antifreeze is extended with an additive mixture, known as Fleetguard ES liquid. Using reclaimed propylene glycol is not conducive to this process.

Knolls Atomic Power Laboratory

Reclaimed engine coolant is only available at a higher cost.

Lawrence Livermore National Laboratory

Fleet Management recycles antifreeze on-site. The antifreeze drained from the vehicles must be processed and brought back to a minimum of a 50/50 mix. The additive required to complete the recycle process is virgin antifreeze.

Rocky Flats Environmental Technology Site

Utilize new coolant as a make-up coolant for losses associated with site coolant recycling activities. The majority of coolant used at the site is recycled on-site, and therefore is not reported as a new purchase.

Santa Susanna Energy Technology Engineering Center

Hilly and rough terrain requires maximum performance.

Savannah River Site

Currently under review by DOE-Savannah River and the contractor to evaluate cost of implementation of a system in Fiscal Year 2002 to achieve compliance.

Strategic Petroleum Reserve (SPR)

The SPR purchased a small amount (\$292.76) of vehicle coolant (antifreeze) as virgin material because no immediate source of recycled antifreeze could be procured.

Thomas Jefferson National Accelerator Facility

We only operate General Services Administration (GSA) vehicles. All vehicular data reported by GSA.

Attachment F
Technical Impediments for Structural Fiberboard and Laminated Paperboard

Idaho National Engineering and Environmental Laboratory (INEEL)

INEEL does not specify the use of structural fiberboard because of fire safety risks. Architectural engineering standards include a list of applicable codes and standards which specifically restrict the use of structural fiberboard.

INEEL does not specify the use of laminated paperboard in construction applications. Laminated paperboard is a high strength substitute for sheetrock and is suitable to applications where walls have the potential for high impact. INEEL does not have facilities that require walls to withstand high impact.

Rocky Flats Environmental Technology Site

Required Masonite not available as recycled product.

Sandia National Laboratory-California

The structural fiberboard was needed in a hurry, so was purchased at a local store.

Sandia National Laboratory-New Mexico

At this time all construction related material purchased at Sandia is purchased by sub-contractors.

Attachment G
Technical Impediments for Traffic Cones and Barricades

Strategic Petroleum Reserve

There were two reasons that virgin traffic cones were purchased. Either there was no known source of the recycled-content version, or the recycled option did not meet the color or other specifications required by the job application.

There were two reasons that virgin purchases were made. There was no source found to procure traffic barriers with recycled content, or due to the security enhancement specifications, the recycled version could not perform to standard.

Attachment H Technical Impediments for Plastic Desktop Accessories

Ames Laboratory

Recycled product did not meet requester needs.

Argonne National Laboratory-East

The item made with recovered materials is not available within the performance requirements.

Bettis Atomic Power Laboratory

The majority of plastic desk top items purchased from our office product suppliers were not available with recycled content. Additionally, we have a strategic source-deep discount agreement with our office product suppliers and they are able to offer greater discounts on store brand items and have enhanced pricing flexibility on other stock items that do not have recycled content. With few exceptions, the recycled content items are more expensive, when available. We will continue to check with our suppliers for the availability of these items with recycled content and competitive prices.

Fermi National Accelerator Laboratory

The desktop accessories specified are not made of recycled materials.

Fluor Hanford

Required item was not available at a reasonable price.

Hanford Environmental Health Foundation

\$34.01 due to availability, not available from our supplier. Not cost effective to search for a \$4.00 item and a \$30.00 item. \$22.68 due to performance, not available in clear.

Idaho National Engineering and Environmental Laboratory

Limited number of manufacturers produce recycled content desktop accessories that are competitively priced.

Knolls Atomic Power Laboratory

Some plastic desktop accessories are more costly than comparable accessories with recycled content.

Lawrence Berkeley National Laboratory

Recycled content is not available for many of the unique and varied plastic desktop accessories required by Berkeley Lab. Often the plastic shelves, files, and organizers we purchase have unique properties such as physical size, shape, and ergonomic features that are not available with recycled content.

Lawrence Livermore National Laboratory

The main supplier we purchase these products from doesn't carry recycled products for each product category.

Los Alamos National Laboratory

Recycled content alternatives weren't always available competitively within a reasonable period of time, at a reasonable price that met performance requirements.

Ohio Field Office

Micropurchase

Pacific Northwest National Laboratory

\$1,989 of the purchases were allowed exceptions mostly because the type of desktop plastic accessories needed were not available with recycled content. No one vendor carries all types of plastic desktop accessories with recycled content, which makes it very time consuming to find the particular accessory needed with recycled content.

Rocky Flats Environmental Technology Site

Requested products not available as recycled products.

Sandia National Laboratory-California (Sandia/CA)

Our main supplier, Staples, is not blocking the purchase of EPA designated items with out recovered-content as requested by Sandia/CA. Some designated items are not available with recycled content from Sandia/CA's suppliers.

Sandia National Laboratory-New Mexico

Pollution Prevention staff and procurement were unable to identify a supplier of the particular plastic desktop accessory containing recovered materials within the time constraints of the customer.

Savannah River Site

Currently under review by DOE-Savannah River and the contractor to evaluate cost of implementation of a system in Fiscal Year 2002 to achieve compliance.

Thomas Jefferson National Accelerator Facility

Recycled content binders that meet our customers needs were not available or not cost effective.

Western Area Power Administration

Recovered material content plastic desktop accessories were not available in all locations.

Yucca Mountain Site Characterization Project Office

The majority of plastic desktop accessories are purchased from an office supplies vendor. Directions given administrative personnel, who do most of the office supply ordering, are to purchase those items indicated in the catalogue as containing recycled content. Unfortunately, in the past relatively few plastic desktop accessories were made from recycled content materials. In the new "Offices Services" catalogue, the proportion of recycled content products has been greatly increased.

Attachment I Technical Impediments for Toner Cartridges

Albuquerque Operations Office

Lack of knowledge about this program.

Ames Laboratory

Manufactures warranty specifications and user demand for non-recycled cartridges.

Argonne National Laboratory-East

The item made with recovered materials is not available within the performance requirements.

Bechtel Hanford, Inc (BHI)

Purchased printers new enough to the market that a recycled/remanufactured toner was not available at the time. Includes the purchase of Ink Jet Cartridges. BHI is continually monitoring advancements in recycled/remanufactured cartridge technology for new developments.

Bettis Atomic Power Laboratory

Recycled toner cartridges were not immediately available for the new laser printers and were not available for most color printers that were purchased. \$56,941 was spent on new machine toner cartridges. The depleted cartridges for these printers will be refurbished in the future. We will continue to check the marketplace and will purchase these toner cartridges recycled when they become available. Additionally, in the transition from storeroom stocked items to direct Internet purchasing through our office products supplier, some of the toner cartridges were mis-coded to virgin cartridges. Up to \$15,039 was spent on virgin toner cartridges, some were not available recycled at the time Internet requisitioning was first instituted but were available later in Fiscal Year 2001.

Fermi National Accelerator Laboratory

Some bad experiences with recycled product have caused customers to lose confidence.

Fluor Hanford

Use of non-standard and state of the art equipment prevents complete utilization of designated recycled items.

Grand Junction Office

The recycled toner cartridges caused excessive streaking, jamming, and spotting of ink.

Hanford Environmental Health Foundation

Availability \$1,925.77. We purchased some new models and the remanufactured cartridges were not available yet. Performance, \$774.00. Activity requires large amounts of toner, remanufactured cartridges just don't keep up.

Idaho National Engineering and Environmental Laboratory

Unable to identify quality sources of supply for various printer models (e.g. HP laserjet 1100, HP 8500 series, Tektronix colored laser printers). Product performance and quality of remanufactured cartridges is inadequate for some of the newer model printers.

Knolls Atomic Power Laboratory

Toner cartridges for LZK90 printers are only available from Data Products or Texas Instruments and are not available with recycled content. Prior experience with other toner cartridges containing recycled content caused low quality copies particularly with high resolution grey scale images and also caused early contamination of printer rollers causing streaking copies. High capacity toner cartridges are not available with recycled content for HP laser jet 4xxxx series printers.

Lawrence Berkeley National Laboratory

Berkeley Lab's office supply system contractor now substitutes recycled toner cartridges for virgin cartridges, where possible. We purchase toner cartridges for many different brands of fax machines, photocopiers, and color laser printers that require unique cartridge casings--available only from the original manufacturer. We have many machines for which manufacturers do not produce remanufactured toner cartridges. Additionally, all used Berkeley Lab cartridges are recycled.

Lawrence Livermore National Laboratory

Not all the copiers will accept recycled toner cartridges.

Los Alamos National Laboratory

Remanufactured toner cartridges for color printers do not meet performance requirements. Remanufactured toner cartridges were not always available competitively within a reasonable period of time at a reasonable price.

Nevada Operations Office

Recyclable cartridges not yet available for new Tectonics Color printer.

Ohio Field Office

Micropurchases. Some cardholders have claimed to not be able to find remanufactured toner cartridges for some fax machines and color printers.

Pacific Northwest National Laboratory

\$40,792 of the purchases were allowed exceptions because remanufactured cartridges were not available for new printers. As new printers come on the market, it takes over a year before enough spent carcasses can be collected from which to remanufacture cartridges.

Pantex Plant

Pantex Plant developed high and unnecessary printer repair costs resulting from the use of malfunctioning toner cartridges.

Princeton Plasma Physics Laboratory

Some of the most recent purchased printers do NOT have a remanufactured toner cartridge available.

Rocky Flats Environmental Technology Site

Specified toner cartridges not available as recycled product. New toner cartridge ordered to compare performance versus remanufactured cartridge. Requestor indicated remanufactured cartridge will void printer warranty and/or manufacturer is not responsible for damage caused by remanufactured cartridges. User indicates performance of remanufactured cartridge not equivalent to new cartridge. Purchased item recommended by manufacturer. Initial purchase of new cartridge for use in new printer/facsimile. Requested to purchase toner cartridge on General Services Administration (GSA) price schedule, which does not have a recycled choice. Basic purchase agreement with DOE specifies cartridges that can be purchased and those listed are not described as remanufactured.

Sandia National Laboratory-California (Sandia/CA)

Our main supplier, Staples, is not blocking the purchase of EPA designated items with out recovered-content as requested by Sandia/CA. Some designated items are not available with recycled content from Sandia/CA's suppliers.

Sandia National Laboratory-New Mexico

Sandia National Laboratories' current toner cartridge supplier does not have the capability to remanufacture color toner cartridges with the necessary performance requirements at a reasonable price. Pollution Prevention is working with the supplier to increase their capabilities and make these cartridges available.

Savannah River Site

Currently under review by DOE-Savannah River and the contractor to evaluate cost of implementation of a system in Fiscal Year 2002 to achieve compliance.

Strategic Petroleum Reserve

No known source of remanufactured cartridges could be located for a few specific types of toner cartridges.

Western Area Power Administration

Recovered material content (RMC) toner cartridges were not available in some locations. Also, RMC toner cartridges for certain machines proved to be unreliable and prone to spillage. However, different RMC toner cartridges are being tried in hopes of finding a reliable product

Y-12 National Security Complex

Products not available in recycle content.

Attachment J
Technical Impediments for Binders (Original CPG Item)

Albuquerque Operations Office

To our knowledge only small (less than 1.5") binders are recycled. Larger binders cannot be purchased as recycled items from any know vendor (including the General Services Administration).

Argonne National Laboratory-East

The item made with recovered materials is not available within the performance requirements.

Bettis Atomic Power Laboratory

Binders with recycled content were not available in every instance from our office product suppliers. Additionally, in the transition to our strategic source supplier, there were instances when requester failed to use the recycled stock numbers and the office supplier failed to ship substitute recycled binders.

East Tennessee Technology Park

Binders containing recycled content that were needed for a presentation were not available by the next day for the presentation. So 3 virgin-content binders were purchased.

Fermi National Accelerator Laboratory

Price prohibitive.

Fluor Hanford

Recycled product was not available in the type and/or size required.

Hanford Environmental Health Foundation

\$28.87 purchased virgin due to performance requirements, \$20.80 unjustified, purchaser was not aware of the requirements. All purchasers have been re-trained.

Idaho National Engineering and Environmental Laboratory

Unable to identify sources of supply for recycled content square-ring binders, color binders, and poly binders.

Knolls Atomic Power Laboratory

8 ½ x 5 ½ size binders with recycled material are only available at a higher cost. This size binder is not available from the General Services Administration.

Lawrence Berkeley National Laboratory (LBNL)

Binders are specified for special purposes and must meet various size, cover insert, binding, and color requirements. The selection of binders containing recycled content is limited for the varied applications and requirements necessary at Berkeley Lab. Our office supply vendor is continuing to work with its suppliers on incorporating recycled content in the white binders with clear plastic insert pockets required by LBNL.

Lawrence Livermore National Laboratory

DOE has mandated a small business goal of 46%. A majority of these purchases are made from a small business who doesn't carry recycled products for each of their categories.

Los Alamos National Laboratory

Some styles of binders were not available at a reasonable price, competitively within a reasonable time frame and that met performance specifications.

Oak Ridge Operations Office

Price of the binder is about double of standard binder price.

Ohio Field Office

Micropurchase - no justification required.

Pacific Northwest National Laboratory

\$5,401 of the purchases were allowed exceptions mostly because of cost. Although we succeeded last year in pushing the cost of recycled binders from our preferred provider (1 day delivery time) down 22%, the new price is still 50% higher than their price for virgin binders, and the lowest price for recycled binders we have been able to find in the nation (3 days delivery time) is 44% higher than the lowest virgin price we know of. We occasionally had to purchase virgin binders because the recycled binders were not available by the time we required them. Our preferred provider promised to carry more in stock, but we found this year they often did not have the 0.5" spine white binders. Some jobs require binders with certain specifications (totally clear see through cover, for instance), which are not yet available on the market with recycled content.

Rocky Flats Environmental Technology Site

Supplier does not provide specified binder as recycled product. Product must match item currently in use.

Sandia National Laboratory-California (Sandia/CA)

Our main supplier, Staples, is not blocking the purchase of EPA designated items with out recovered-content as requested by Sandia/CA. Some designated items are not available with recycled content from Sandia/CA's suppliers.

Savannah River Site

Currently under review by DOE-Savannah River and the contractor to evaluate cost of implementation of a system in Fiscal Year 2002 to achieve compliance.

Thomas Jefferson National Accelerator Facility

Recycled content binders that meet our customers needs were not available or not cost effective.

Y-12 National Security Complex

Specific items needed not available in recycled content.

Yucca Mountain Site Characterization Project Office (YMP)

During FY-2000 the YMP Management & Operations Office Services Department initiated a test program intended to diminish the number of binders that were purchased by the YMP. Up to that time, binders in use tended to "bleed through" and become discolored; they were consequently donated to public schools, or disposed. A new line of binders was identified, in which archival-grade plastic was used. Ink and dye transfer was eliminated allowing the binders to be reused. Although, the archival grade binders cost more than the lesser quality units, their increased life cycle allows for multiple reuses. Consequently, the YMP was able to realize a savings of \$49,454.60 between FY-2000 and FY-2001, and the difference was even greater when compared to FY-1999 during which the YMP spent \$88,293.00 on binders; a difference of \$61,316.75 (65% and 69% respectively). To insure reuse of binders, a requirement instituted during FY-2001 specifies that the reproduction services department must first use recovered binders for document reproduction jobs before using new ones.

Attachment K Technical Impediments for Carpet

Idaho National Engineering and Environmental Laboratory (INEEL)

No activity. INEEL does not purchase polyester carpet for light/medium wear applications. INEEL purchases commercial grade nylon faced carpet for industrial heavy-wear applications.

Lawrence Berkeley National Laboratory

Berkeley Lab carpets are used in high-traffic areas. Carpets containing recycled materials do not have the required wear factor and have colors which are not acceptable to our architects.

Lawrence Livermore National Laboratory

Carpet is not available at a reasonable price. Our clients orders factory direct. We are unable to dictate what our clients order.

Rocky Flats Environmental Technology Site

Entire carpet was not replaced, and the specified carpet was ordered to match existing carpet. All carpet runners were not replaced, and the specified carpet runner was ordered to match existing carpet runners.

Sandia National Laboratory-New Mexico

At this time all construction related material purchased at Sandia is purchased by sub-contractors.

Savannah River Site

Currently under review by DOE-Savannah River and the contractor to evaluate cost of implementation of a system in Fiscal Year 2002 to achieve compliance.

Attachment L Technical Impediments for Floor Tiles

Argonne National Laboratory-East

The Laboratory employees responsible for these purchases preferred items made with the virgin materials.

Los Alamos National Laboratory

Recycled floor tiles were not always available competitively at a reasonable price that met performance requirements.

Princeton Plasma Physics Laboratory

The floor tiles purchased with virgin material were of a commercial grade and we could NOT locate Vinyl Composite Tiles [VCT] of commercial grade with any recycled content.

Savannah River Site

Currently under review by DOE-Savannah River and the contractor to evaluate cost of implementation of a system in Fiscal Year 2002 to achieve compliance.

Strategic Petroleum Reserve

Floor tiles were purchased as virgin because the tiles made with recovered plastic and rubber did not meet the specifications of the job. EPA clarified in the Federal Register on 11/13/97 that floor tiles with recovered materials content might be appropriate for only specialty purpose.

Attachment M
Technical Impediments for Office Recycling and Waste Containers

Office Recycling Containers

Argonne National Laboratory-East

The item made with recovered materials is not available within the performance requirements.

Lawrence Livermore National Laboratory

Very few products offered contain recycled material.

Yucca Mountain Site Characterization Project Office

The YMP purchased 1,200 recycled content cardboard, desktop paper recycling-trays at a cost of \$894.00. Other recycling containers were purchased for \$249.30. Those containers were not fabricated with recycled content material; their recycled content counterparts were significantly more expensive.

Waste Containers

Argonne National Laboratory-East

The item made with recovered materials is not available within the performance requirements. The item made with recovered materials is not available competitively within a reasonable period of time.

Bettis Atomic Power Laboratory

The plastic office waste receptacles that were purchased were not available with recycled content. Due to the lack of public demand, our office product supplier does not stock Office Waste Receptacles with recycled content. Subsequently, the ability to order Office Waste Receptacles from our office product supplier has been blocked.

Lawrence Berkeley National Laboratory

The physical location of certain waste receptacles requires containers meeting certain dimensions and visual requirements not currently available in waste receptacles containing recycled content. Also, the majority of waste containers here are metal, for fire and safety reasons.

Lawrence Livermore National Laboratory

Very few products offered contain recycled material.

Los Alamos National Laboratory

There was not a recycled content alternative available competitively for a specific waste receptacle that was needed.

Sandia National Laboratory-CA

Our main supplier, Staples, is not blocking the purchase of EPA designated items with out recovered-content as requested by Sandia/CA. Some designated items are not available with recycled content from Sandia/CA's suppliers.

Savannah River Site

Currently under review by DOE-Savannah River and the contractor to evaluate cost of implementation of a system in Fiscal Year 2002 to achieve compliance.

Thomas Jefferson National Accelerator Facility

Recycled content binders that meet our customers needs were not available or not cost effective.

Y-12 National Security Complex

Specific products required and products made from or containing recycled content in sizes needed were not available.

Attachment N Technical Impediments for Plastic Trash Bags

Argonne National Laboratory-East

The item made with recovered materials is not available within the performance requirements.

Bettis Atomic Power Laboratory

Small capacity plastic trash bags were purchased for use with personal office paper shredders and were not available with recycled content. Subsequently only larger, thirty gallon recycled plastic trash bags can be purchased from this supplier. The ability to order non-recycled trash bags from our office products supplier has been blocked.

Fermi National Accelerator Laboratory

Some larger sizes of bags have strength requirements that recycled products do not meet.

Hanford Environmental Health Foundation

Our supplier does not offer recycled shredder bags, all EPA listed sources on the website I tried to contact were non-responsive.

Lawrence Berkeley National Laboratory

Recycled-content bags are not available for specialized container such as those for electrical shredding devices.

Los Alamos National Laboratory

Recycled content alternatives to this product were not always available competitively within a reasonable period of time at a reasonable price.

Miamisburg Environmental Management Project

Purchase of item was under the \$2,500.00 micro purchase threshold, justification for purchase of item not containing recovered material was, therefore, not required.

Rocky Flats Environmental Technology Site

Bagged towels transferred to laundry require heavy-duty bags. Kitchen trash and wet towels required mill thickness not available as recycled product.

Sandia National Laboratory-California

P2 and Maintenance will investigate and locate a new vendor for plastic trash bags with recycled content.

Sandia National Laboratory-New Mexico

Plastic trash bags at Sandia National Laboratories must be clear so that the contents are visible for inspection at the solid waste transfer facility. Clear plastic bags containing recovered materials are not available.

Savannah River Site

Currently under review by DOE-Savannah River and the contractor to evaluate cost of implementation of a system in Fiscal Year 2002 to achieve compliance.

Strategic Petroleum Reserve

These virgin trash bags were purchased to replace some substandard performing recycled-content trash bags.

Thomas Jefferson National Accelerator Facility

Recycled content binders that meet our customers needs were not available or not cost effective.

Western Area Power Administration

Some uses require size and strength that are not offered in recovered material content bags.

Y-12 National Security Complex

Recycled content equivalent does not meet quality standards. Will be re-evaluated as new products are available.

Yucca Mountain Site Characterization Project Office

In general, purchasing personnel select items with the lowest cost. In this situation, the price changed during the course of the year and less expensive, virgin product was purchased. The cost difference between virgin and recycled content plastic bags is inconsequential.

Attachment O
Explanation for Not Revising Specifications for Carpet Cushion

Argonne National Laboratory-East

Specifications for this item are revised on a project by project basis.

Brookhaven National Laboratory

We write this section on an "as needed" basis, either for rolled goods or carpet tile. We do not have a master specification on file for carpet cushion.

Idaho National Engineering and Environmental Laboratory (INEEL)

INEEL does not have a need to purchase carpet cushion; therefore, this product is not specified in the architectural engineer building standards. Traffic volumes require the use of commercial grade, heavy-wear nylon carpets, which do not need a carpet cushion or carpet underlay. Underlay is most commonly used in light/medium grade carpets in residential applications.

Los Alamos National Laboratory

There are currently no specifications addressing carpet cushion and so there are no restrictions or preferences given on materials. Carpet cushion is not used in Laboratory buildings at all.

Pacific Northwest National Laboratory

The specifications did not preclude the purchase of carpet cushion with recycled content.

Savannah River Site

Currently under review by DOE-Savannah River and the contractor to evaluate cost of implementation of a system in Fiscal Year 2002 to achieve compliance.

Southwestern Power Administration

No requirements for this period.

Attachment P
Technical Impediments for Carpet Cushion

Argonne National Laboratory-East

The item made with recovered materials is not available competitively within a reasonable period of time.

Savannah River Site

Currently under review by DOE-Savannah River and the contractor to evaluate cost of implementation of a system in Fiscal Year 2002 to achieve compliance.

Attachment Q
Explanation for Not Revising Specifications for Flowable Fill

Argonne National Laboratory-East

The specifications are revised on a project by project basis.

Brookhaven National Laboratory

This section is written on "as needed" basis. We do not have a master specification on file for floor fills.

Idaho National Engineering and Environmental Laboratory (INEEL)

INEEL does not specify the use of flowable fill. Low-strength concrete with fly-ash is used for backfill applications. Flowable fill is not specifically precluded, but no standard specification is appropriate for INEEL operations.

INEEL uses pit run gravel backfill (which generally is no cost) or low strength concrete w/ fly-ash. The use of flowable fill is not considered to be standard construction practice in this area.

Los Alamos National Laboratory

The Laboratory does not have any restrictions or preferences on materials for flowable fill.

Pacific Northwest National Laboratory

The specifications did not preclude the purchase of flowable fill with recycled content.

Strategic Petroleum Reserve (SPR)

In the past, application of flowable fill has not lent itself to SPR activities. There have been no applications to date for the use of flowable fill. However, future projects may require or afford the opportunity for the use of flowable fill. The specifications do not preclude the use of flowable fill.

Western Area Power Administration

The specifications were not revised because they do not require use of virgin materials.

See Attachment R
Explanation for Not Revising Specifications for Park Benches and Picnic Tables

Los Alamos National Laboratory

There are not currently any specifications regarding park benches and picnic tables at the Laboratory and there are no requirements for the use of virgin materials.

Pacific Northwest National Laboratory

The specifications did not preclude the purchase of this item with recycled content.

Strategic Petroleum Reserve

There are no standard specifications for park benches and picnic tables. The product selection is handled at the site or purchaser level for the particular job requirements. The Affirmative Procurement Process requires the buyer to purchase park benches and picnic tables containing recovered materials when they meet the specifications.

Attachment S Technical Impediments for Compost

Idaho National Engineering and Environmental Laboratory (INEEL)

No activity. The INEEL standard specification for landscaping does not preclude the use of compost made from yard trimmings, leaves, grass clippings, and/or food waste. However specific "Revegetation" specifications do preclude the use of compost in re-establishing native vegetation on INEEL lands. Native soil types require that each revegetation project have a special fertilizer blend based on soil testing. Governing document is ID-12114, Guidelines for Revegetation of Disturbed Sites at the INEEL, based on extensive local research.

Lawrence Livermore National Laboratory (LLNL)

Compost & mulch are prepared on-site. LLNL does not purchase this commercially.

Thomas Jefferson National Accelerator Facility

Due to the small requirement, locating and procuring recycled content product is not cost effective.

Attachment T
Explanation for Not Revising Specifications for
Plastic Lumber Timbers and Posts

Idaho National Engineering and Environmental Laboratory (INEEL)

The use of plastic lumber in construction applications such as decks and boardwalks does not meet INEEL performance standards relative to handicap accessibility and fire protection requirements. Plastic lumber is considered to be a combustible material. Plastic lumber may however be utilized for items such as exterior benches if outside of construction.

Los Alamos National Laboratory

There are currently no specifications for these products.

Pacific Northwest National Laboratory

The specifications did not preclude the purchase of landscaping timbers and posts with recycled content.

Strategic Petroleum Reserve

There are no standard specifications for landscaping timbers or posts. The product selection is handled at the site or purchaser level for the particular job requirements. Guidance specifications are provided for major equipment and projects. These specifications do not preclude the use of recycled-content materials. Through the Affirmative Procurement process, the buyer is encouraged to consider recycled landscaping timbers and posts.

Attachment U
Technical Impediments for Plastic Lumber Timbers and Posts

Sandia National Laboratory-California

The products needed were not available with recycled content.

Sandia National Laboratory-New Mexico

Pollution Prevention staff and procurement were unable to identify a supplier of plastic lumber containing recovered materials that could provide this item within the time constraints of the project.

Strategic Petroleum Reserve

The \$443.26 purchase of virgin posts was required for a specially designed warning post stand which could not be procured as recycled.

Attachment V
**Explanation for Not Revising Specifications for Solid Plastic Binders,
Plastic Clipboards, Plastic File Folders, Plastic Clip Portfolios, and
Plastic Presentation Folders**

Los Alamos National Laboratory

Current specifications for these items do not require virgin materials. Vendor is aware of Laboratory preference for recycled content products.

Pacific Northwest National Laboratory

The specifications did not preclude the purchase of these items with recycled content.

Southwestern Power Administration

None purchased from non-federal sources.

Strategic Petroleum Reserve

There are no standard specifications for these items. The product selection is handled at the site by the property managers or buyers for the particular need. The affirmative procurement process requires the buyer to consider purchasing products made with recycled materials if the performance and specifications are appropriate.

Attachment W
**Technical Impediments for Solid Plastic Binders, Plastic Clipboards,
Plastic File Folders, Plastic Clip Portfolios, and
Plastic Presentation Folders**

Binders

Argonne National Laboratory-East

The item made with recovered materials is not available within the performance requirements.

Bettis Atomic Power Laboratory

Solid plastic binders purchased from our office products supplier were not available with recycled content. We will continue to check with our suppliers for the availability of these items with recycled content and competitive prices.

Idaho National Engineering and Environmental Laboratory (INEEL)

No activity. See prior binders section for dollar amount. A bit difficult to track solid plastic binders separate from the plastic-covered binders when most users interpret them both as just "plastic" binders.

Knolls Atomic Power Laboratory

Some solid plastic binders with recycled content are only available at a higher price.

Clipboards

Argonne National Laboratory-East

The item made with recovered materials is not available within the performance requirements.

Bettis Atomic Power Laboratory

Plastic clipboards with recycled content were unavailable from any of our office product suppliers. Until a recycled content version is available, the ability to order plastic clipboards from our office product suppliers has been blocked. Additionally, we have a strategic source-deep discount agreement with our office product suppliers and they are able to offer greater discounts on store brand items and have enhanced pricing flexibility on other stock items that do not have recycled content. With few exceptions, the recycled content items are more expensive, when available. We will continue to check with our suppliers for the availability of these items with recycled content and competitive prices.

Hanford Environmental Health Foundation

Specifications called for clear plastic clipboards. Only colored clipboards were available from our supplier.

Sandia National Laboratory-California (Sandia/CA)

Our main supplier, Staples, is not blocking the purchase of EPA designated items with out recovered-content as requested by Sandia/CA. Some designated items are not available with recycled content from Sandia/CA's suppliers.

File Folders

Argonne National Laboratory-East

The item made with recovered materials is not available within the performance requirements.

Bettis Atomic Power Laboratory

The plastic file folders purchased from our office product supplier were not available with recycled content. Additionally, we have a strategic source-deep discount agreement with our office product suppliers and they are able to offer greater discounts on store brand items and have enhanced pricing flexibility on other stock items that do not have recycled content. With few exceptions, the recycled content items are more expensive, when available. We will continue to check with our suppliers for the availability of these items with recycled content and

Knolls Atomic Power Laboratory

Some plastic file folders with recycled content were not available within the time required.

Lawrence Berkeley National Laboratory

File folders are used for a variety of applications, some of which require unique colors, transparent covers, and binding not available with recycled content.

Los Alamos National Laboratory

Recycled content alternatives for this product were not always available competitively within a reasonable period of time that met performance requirements.

Rocky Flats Environmental Technology Site

Plastic sheet protectors, clear plastic report covers, and moisture-proof heavy-duty expanding wallet files not available as recycled products from office products supplier.

Sandia National Laboratory-California (Sandia/CA)

Our main supplier, Staples, is not blocking the purchase of EPA designated items with out recovered-content as requested by Sandia/CA. Some designated items are not available with recycled content from Sandia/CA's suppliers.

Yucca Mountain Site Characterization Project Office

In general, purchasing personnel select items with the lowest cost. In this situation, as well as others, the cost difference between recycled content products and those made of virgin material is inconsequential.

Clip Portfolios

Bettis Atomic Power Laboratory

Recycled plastic clip portfolios were not available in every instance from our office product supplier. Additionally, we have a strategic source-deep discount agreement with our office product suppliers and they are able to offer greater discounts on store brand items and have enhanced pricing flexibility on other stock items that do not have recycled content. With few exceptions, the recycled content items are more expensive, when available. We will continue to check with our suppliers for the availability of these items with recycled content and competitive prices.

Sandia National Laboratory-California (Sandia/CA)

Our main supplier, Staples, is not blocking the purchase of EPA designated items with out recovered-content as requested by Sandia/CA. Some designated items are not available with recycled content from Sandia/CA's suppliers.

Strategic Petroleum Reserve

A special type of clipboard portfolio was requested with no options for obtaining it with recycled-content materials.

Presentation Folders

Argonne National Laboratory-East

The item made with recovered materials is not available within the performance requirements.

Hanford Environmental Health Foundation

Wanted clear presentation folders, only available in colors.

Knolls Atomic Power Laboratory

Some plastic presentation folders were not available with recycled content in the time required and were more costly.

Los Alamos National Laboratory

Recycled content alternatives were not always available competitively within a reasonable time frame, at a reasonable price and that met performance requirements.

Sandia National Laboratory-California (Sandia/CA)

Our main supplier, Staples, is not blocking the purchase of EPA designated items with out recovered-content as requested by Sandia/CA. Some designated items are not available with recycled content from Sandia/CA's suppliers.

Thomas Jefferson National Accelerator Facility

Recycled content binders that meet our customers needs were not available or not cost effective.

Yucca Mountain Site Characterization Project Office (YMP)

Recycled content Plastic Presentation Folders were more costly than those manufactured with virgin material. Additionally, some presentation folders allow toner or ink to bleed into the plastic causing the display to stick and tear when being removed. The transfer of toner or ink also tends to diminish the vibrancy of the display product. Therefore, the YMP has been purchasing the more expensive, reusable, archival grade plastic folders.

Attachment X
Explanation for Not Revising Specifications for Adsorbents and Absorbents

Lawrence Livermore National Laboratory

We do not know of any other sources that have the desired chemical compatibility or functional performance.

Los Alamos National Laboratory

There are no specifications requiring the use of virgin materials or prohibiting the use of recovered materials.

Pacific Northwest National Laboratory

The specifications did not preclude the purchase of this item with recycled content.

Yucca Mountain Site Characterization Project Office

There was no need to change the applicable procedure because it did not restrict the purchase of adsorbent material to virgin product. In this case, crushed corncob material was purchased for use as an adsorbent and packing material for lab-pack disposal of hazardous waste. The corncob packing was considered to be compatible with incineration, which is the treatment of choice.

Attachment Y
Technical Impediments for Adsorbents and Absorbents

Fernald Environmental Management Project

None at this time.

Fluor Hanford

Certain types of this product were not available to facilitate usage within the requisite scheduling of the requirement.

Rocky Flats Environmental Technology Site

Recycled absorbent pillow in specified size was 318% more expensive than non-recycled product. Requested product not available as recycled product.

Savannah River Site

Currently under review by DOE-Savannah River and the contractor to evaluate cost of implementation of a system in Fiscal Year 2002 to achieve compliance.

Strategic Petroleum Reserve

The majority of virgin purchases of sorbents was for the following reasons: Recycled version was substandard in performance and or there was no known source for the recycled-content roll type of sorbent.

Y-12 National Security Complex (Y-12)

Y-12 procured sorbents in FY 2001. However, in most applications, specialty materials made out of components other than those listed on the EPA's homepage (paper, textiles, plastics, wood, and other organics/multi-materials) were required. When possible, Y-12 does use the types of sorbents listed on EPA's homepage, and these sorbents are made from recycled-content materials.

Attachment Z
Explanation for Not Revising Specifications for Industrial Drums

Fernald Environmental Management Project

Waste of concern is radiological or hazardous, therefore safety concerns dictate the use of virgin manufactured drums to assure consistent quality.

Los Alamos National Laboratory

There are no specifications requiring the use of virgin materials in Industrial Drums.

Stanford Linear Accelerator Center

New item.

Strategic Petroleum Reserve

There are no standard specifications for industrial drums. The product selection is handled at the site level by the purchaser and person who ensures that the industrial drum will meet the requirements for the material to be contained or shipped. Guidance specifications do not preclude the use of industrial drums made with recycled materials. The affirmative procurement process requires that the purchaser consider a recycled-content version.

Attachment AA Technical Impediments for Industrial Drums

Lawrence Berkeley National Laboratory

Drums purchased are used for storage and/or transport of hazardous materials and mixed waste. They must meet Department of Transportation and EPA requirements for shipment/storage of chemicals and waste. Drums containing recycled content are often not certified or available.

Strategic Petroleum Reserve

No known source for recycled-content drums to meet specifications.

Western Area Power Administration

Recovered material content drums were not available in the location where the purchase was made.

Y-12 National Security Complex (Y-12)

Y-12 procured metal and fiber drums in FY 2001. The metal drums meet EPA guidelines. The fiber drums contain recycled content but do not meet EPA's recommended 100% content guideline. Y-12 reviewed EPA's homepage and found that the one vendor listed (on the homepage) is the vendor providing fiber drums to Y-12. This vendor does not currently produce 100% recycled content fiber drums. Periodic vendor reviews will be performed by Y-12 to verify that 100% recycled content fiber drums are not available.

Yucca Mountain Site Characterization Project Office (YMP)

Due to fluctuations in price and availability within the recycled/reconditioned industrial drum market, the YMP elected to purchase 40 new industrial drums during FY-2001. The process of properly cleaning and certifying used drums, especially to meet the more proscriptive Department of Transportation standards for the transport of hazardous waste is costly. At the time of purchase, cost and availability favored the purchase of new products. As an example of variation in the market, during FY-2000, the YMP purchased a larger volume of drums that had been reconditioned.

Appendix AB
Explanation for Not Revising Specifications for Awards and Plaques

Los Alamos National Laboratory

There are not currently any specifications requiring the use of virgin materials for these products.

Pacific Northwest National Laboratory

The specifications did not preclude the purchase of awards and plaques with recycled content.

Southwestern Power Administration

None purchased from non-federal sources.

Strategic Petroleum Reserve

There are no standard specifications for awards and plaques. The product selection is handled at the site by the property managers or buyers for the particular need. The affirmative procurement process requires the buyer to consider purchasing products made with recycled materials when the specifications and application is appropriate.

Attachment AC
Technical Impediments for Awards and Plaques

Albuquerque Operations Office

Unaware of requirements to purchase recovered content.

Argonne National Laboratory-East

The item made with recovered materials is not available within the performance requirements.

Hanford Environmental Health Foundation

Our local supplier indicated they have never heard of a recycled content plaque, all their material was made from solid wood or virgin plastics. It was not cost effective to require the purchaser to search out recycled content.

Idaho National Engineering and Environmental Laboratory (INEEL)

Some organizations at the INEEL required the purchase of specific awards/plaques that were being issued under existing award programs. The virgin content products met the need to issue exact likeness of awards to employees. Alternative recycled content products were purchased if new award programs were initiated or if these recycled content products were determined an acceptable equal.

Knolls Atomic Power Laboratory

Plaque with recycled content was not available.

Rocky Flats Environmental Technology Site

Cost prohibitive to pay set-up charges and transfer artwork to another vendor. Could not locate acceptable recycled substitute to meet time frame for presentation.

Attachment AD
Explanation for Not Revising Specifications for Mats

Los Alamos National Laboratory

There are no specifications requiring the use of virgin materials or prohibiting the use of recovered materials in floor mats.

Pacific Northwest National Laboratory

The specifications did not preclude the purchase of floor mats with recycled content.

Southwestern Power Administration

None purchased from non-federal sources.

Stanford Linear Accelerator Center

New item.

Strategic Petroleum Reserve

There are no standard specifications for mats. The product selection is handled at the site or purchaser level for the particular job requirements. Guidance specifications are provided for major equipment and projects. The affirmative procurement process requires the buyer to consider mats containing recycled materials.

Attachment AE Technical Impediments for Mats

Argonne National Laboratory-East

The item made with recovered materials is not available within the performance requirements.

Knolls Atomic Power Laboratory (KAPL)

Mats with recycled content do not meet KAPL performance specifications.

Lawrence Berkeley National Laboratory

Special formulation of mats is required with polyvinyl chloride (PVC) Nitrile closed cell rubber for increased safety. Mats need to be impervious to acids, chemicals, petroleum products and last several years. Other mats are necessary to remove dust, dirt, and bacteria from shoes, casters and cart wheels. Some mats need to be used for entries to cleanrooms, radioactive and pharmaceutical laboratories where cleanliness is required. Recycled-content mats do not meet all these requirements.

Rocky Flats Environmental Technology Site

Fatigue mat not available as recycled product.

Savannah River Site

Currently under review by DOE-Savannah River and the contractor to evaluate cost of implementation of a system in Fiscal Year 2002 to achieve compliance.

Strategic Petroleum Reserve

Virgin mats were purchased for two main reasons: 1) the type of anti-fatigue mats needed could not be found made with recycled materials or 2) there was no known source for chairmats at the time.

Thomas Jefferson National Accelerator Facility

Local office suppliers for desk/chair mats do not offer recycled content product mats. Rubbermaid, the manufacturer, does not seem to produce mats that are recycled content.

Attachment AF

Explanation for Not Revising Specifications for Signs, Sign Supports, and Posts

Los Alamos National Laboratory

There are no specifications requiring the use of virgin materials or prohibiting the use of recovered materials in signage.

Pacific Northwest National Laboratory

The specifications did not preclude the purchase of signage with recycled content.

Strategic Petroleum Reserve

There are no standard specifications for signage. The product selection is handled at the site or purchaser level for the particular job requirements. The affirmative procurement process requires the buyer to consider recycled and recovered materials when purchasing the product.

Attachment AG
Technical Impediments for Signs, Sign Supports, and Posts

Argonne National Laboratory-East

The item made with recovered materials is not available within the performance requirements.

Bettis Atomic Power Laboratory

The signs purchased were special order to meet specific Bettis requirements. They were constructed of lightweight plastic with peel and stick backing and were unavailable with recycled content. We will continue to check the market place for recycled content plastic signs that meet our specifications.

Idaho National Engineering and Environmental Laboratory (INEEL)

Unable to identify manufacturers who provide recycled content products which are determined equal to in selection and quality to existing INEEL signage specifications/program requirements.

Lawrence Berkeley National Laboratory

Special signs are required for general safety, laboratory doors, street safety, and dangerous situations--often with reflective, self-adhesive materials. These are not always available with recycled content.

Rocky Flats Environmental Technology Site

Time required to set up new contract not acceptable. Requested product not available as recycled product.

Savannah River Site

Currently under review by DOE-Savannah River and the contractor to evaluate cost of implementation of a system in Fiscal Year 2002 to achieve compliance.

Strategic Petroleum Reserve

Signage was purchased as virgin (\$11,225.31) for the following reasons: no vendor could be found for the recycled version, the virgin version was cost prohibitive when compared to recycled version, or signage design had specifications that could not be achieved by the recycled version.

Thomas Jefferson National Accelerator Facility

Recycled content binders that meet our customers needs were not available or not cost effective.

Attachment AH

Explanation for Not Revising Specifications for Manual-Grade Strapping

Los Alamos National Laboratory

There are no specifications requiring the use of virgin materials or prohibiting the use of recovered materials in manual-grade strapping.

Pacific Northwest National Laboratory

The specifications did not preclude the purchase of manual-grade strapping with recycled content.

Strategic Petroleum Reserve (SPR)

There are no standard specifications for manual-grade strapping. The product selection is handled at the site or purchaser level for the particular job requirements. The affirmative procurement process under the pollution prevention program requires buyers to consider materials made from recycled and recovered materials. Strapping, however, has not been a major purchase for the SPR.

Attachment AI
Technical Impediments for Manual-Grade Strapping

Savannah River Site

Currently under review by DOE-Savannah River and the contractor to evaluate cost of implementation of a system in Fiscal Year 2002 to achieve compliance.

Strategic Petroleum Reserve

The virgin manual-grade strapping or flexible wrap purchased as virgin was due to lack of a recycled-content source that met the specifications of the application.

Attachment AJ New Solid Waste Prevention Practices

Albany Research Center (ARC)

Instituted new toner recycling program and other recycling programs at ARC.

Ames Laboratory

The recycling of alkaline batteries was implemented. The Ames Laboratory recycles all types of batteries.

Argonne National Laboratory-East (ANL-E)

ANL-E continued to improve existing solid waste recycling programs through training and assessments. ANL-E implemented a new Laboratory-wide Pollution Prevention Awareness training program. This is required training for all Laboratory employees. ANL-E implemented a new initiative to perform Process Waste Assessments in areas identified for generating high volume/cost waste streams. ANL-E initiated several new reuse and recycling programs during FY 2001. The Argonne Chemical Exchange System (ACES) was developed to facilitate the exchange of surplus chemicals across the Laboratory. This system is linked to the Laboratory's Environment, Safety, and Health (ES&H) Chemical Management System and will incorporate the use of a centralized surplus chemical storage facility. The Surplus Office Supply Exchange (SOS-X) is a program developed to recycle and reuse surplus office supplies and furniture by promoting the availability or need of items via the Laboratory's e-mail system. The Argonne Equipment and Materials Exchange (AEM-X) is a program developed to recycle and reuse surplus equipment, supplies, and materials by promoting the availability or need of items via the Laboratory's e-mail system. ANL-E implemented a new transparency recycling program.

Bechtel Nevada

1. Instituted collection of leftover food and grease from the cafeterias at the Nevada Test Site. The leftover food and grease was given to a local pig farmer to be turned into feed for the pigs.
2. Instituted collection of #1 plastics for recycling at the Nevada Test Site and North Las Vegas facilities.
3. Purchased a baler to bale cardboard, plastic and aluminum cans at the Nevada Test Site in order to reduce the costs for a subcontractor to pick up the recyclables.

Brookhaven National Laboratory

Instituted double sided copying in Administrative Divisions.

Chicago Operations Office

The Chicago Operations Office (CH) is responsible for solid waste prevention programs at eight DOE sites. New initiatives included expansion of Process Waste Assessments to two sites, finding alternative sources of funding for site waste reduction projects, and restructuring of the CH pollution Prevention Program to place greater emphasis on 1)Cleanup waste reduction; 2)Reduction of Routine Waste; and 3)Design for the Future.

East Tennessee Technology Park

All Oak Ridge Operations (ORO) pollution prevention (P2) accomplishments are reported to DOE semi-annually. Select Bechtel Jacobs Company LLC P2 accomplishments involving solid waste prevention are highlighted in this section.

In Fiscal Year (FY) 2001, Bechtel Jacobs Company and its subcontractors initiated new initiatives and performed actions to reduce and/or recycle waste from Oak Ridge Operations (ORO) Environmental Management (EM) waste operations and environmental cleanup activities by 1.3 million kilograms as highlighted in the EM-22 FY 2001 Accomplishments for EM activities at ORO.

FY 2001 new P2 activities included bulking excess carbon from the Central Mercury Treatment Facility at the Y-12 National Security Complex for transport and disposal rather than containerizing the waste.

Bechtel Jacobs Company undertook a significant effort to empty, downpost, and close out unneeded radiological, Resource Conservation and Recovery Act (RCRA) and mixed waste storage areas and vaults across the ORR in FY 2001. In addition to impacting radiological, hazardous and mixed waste generated when managing and entering these areas, this effort is anticipated to also reduce sanitary waste formerly generated in association with managing these areas.

At the Paducah Site, Bechtel Jacobs Company has initiated recycling spent carbon from the Northwest Plume Groundwater Treatment System. The carbon is shipped to Envirotrol, Inc., an offsite recycler, where it is reactivated through a thermal treatment process, returned, and reused. Efficiency (waste reduction) runs about 67 to 82 percent for each change out.

Fermi National Accelerator Laboratory

New waste minimization and pollution prevention practices implemented at Fermilab were described in our Annual Accomplishments Data Report, which was entered into DOE's web site database at <http://www.doep2.org/wastemin/accomp.asp>.

Fluor Hanford

1. The Hanford Site donated 27 cartons of 17x22 inch white paper to the Richland School District. The paper was a type no longer used at Hanford. The donation/recycling was valued at \$2,523. Approximately 1.5 metric tons was diverted from the waste stream, and the paper was used rather than recycled.
2. Within this reporting period, 1,436 boxes of continuous feed computer paper was sold at auction rather than recycled. This activity diverted 17.5 metric tons of paper from the waste stream, so that it was utilized as originally intended.
3. 244 cartons of continuous feed computer paper was donated to Columbia Basin College to be utilized for printing schedules from their mainframe computer. The donation was valued at \$3,577, and diverted 3.0 metric tons of paper.
4. GTE sponsors a contest for local elementary schools, providing prize money to the top three schools who collect the most phone books. The Hanford Site donated 6 pallets of phone books to the Richland School District, to be divided equally among the eight participating elementary schools. In addition to the prize money, the revenue generated by recycling the phone books is used to purchase new equipment by the schools. The donation totalled 5.18 metric tons.
5. The Hanford Site once again participated in the nationwide program, "Call to Protect", a partnership between the Wireless Foundation, The National Coalition Against Domestic Violence and Motorola to provide free, wireless phones and air time to victims. Employees donated 75 phones, plus various accessories during FY-01.

Hanford Environmental Health Foundation

We coordinated the delivery of a cardboard recycle bin at our office complex to encourage employees to recycle cardboard rather than throw it in the dumpster. We continue to promote paper, plastic and aluminum can recycling and contracted with Shred Away to shred our sensitive scrap and haul it off to a recycling center.

Idaho National Engineering and Environmental Laboratory (INEEL)

- 1) A subcontract was issued to Snake River Speedway to accept wood chips contaminated with gravel for roadway maintenance and erosion control. The INEEL transported 766 metric tons of material to Snake River in FY 2001.
- 2) A subcontract was issued to Challenger Pallet Company to refurbish and recycle wooden pallets. The INEEL transported 5.3 metric tons of wood pallets to Challenger in FY 2001.

Kansas City Plant

Honeywell Federal Manufacturing & Technologies expanded upon its very successful recycling efforts in FY 2001 by adding tires, phone books and fluorescent light bulbs to its list of recycled materials. Overall 58.2% of the facility's non hazardous waste was recycled.

Lawrence Berkeley National Laboratory (LBNL)

LBNL continues to add recycling and reuse into its various construction and demolition projects. As this is the largest component of our sanitary waste stream, we are making every effort to minimize the trash sent to landfill. The Master Building Specifications were updated. In particular, the Waste Specification was revised to make it simpler for the contractors. In addition, LBNL increased the recycling goals mandated within the waste specification. We began to look at the deconstruction of a building that was determined to be unoccupiable due to termite damage. The actual hazardous abatement and deconstruction began in FY02. In FY01, a select group met to look at all the recycling and reuse options available.

Lawrence Livermore National Laboratory

- 1) Paper recycling program expanded to include newspapers, magazines, hardbound reports, phone books, etc.
- 2) Implemented a pipette box recycling program.
- 3) Expanded collection of cardboard for recycling.

Los Alamos National Laboratory

The Laboratory began recycling dirt by sending it to the Los Alamos County Golf Course rather than the landfill. The Laboratory also began recycling concrete and asphalt that otherwise would have gone to the landfill. Additionally, the Materials Recovery Facility was opened to divert sanitary recyclables from the landfill.

National Energy Technology Laboratory

Scrap wooden pallets have been diverted from solid waste stream to recycle stream.

Oak Ridge National Laboratory

Requested that the phone company send us fewer phone books this year.

Ohio Field Office

At Congressional closure sites, OH maintains a constantly evolving waste minimization program under the Ohio Cost Savings Group. New initiatives in 2001 included lead battery recycling, decision to discontinue construction of a new water treatment facility and deployment of several new technologies.

Pacific Northwest National Laboratory (PNNL)

- 1) Instituted PNNL wide composting program. Initial efforts included onsite mulching of all leaves and grass clippings, along with collection of food waste for future combination with landscaping wastes.

2) Increased focus and communication on recycling cardboard and mixed paper. These efforts resulted in doubling the amount of both streams diverted from the landfill to recycling. This amounted to an increase from 38.8 metric tons of corrugated cardboard in FY00 to 77.3 metric tons in FY01, and an increase from 19.3 metric tons of mixed paper in FY00 to 38.73 metric tons in FY01.

3) Conducted a junk mail reduction campaign. 162 letters were sent to companies requesting that thousands of former and duplicate PNNL staff names be removed from their mailing lists. In addition Junk Mail reduction kits with response labels and postcards were placed at each of PNNL's 300 mail-stops for staff to use to stop unwanted mail.

Pantex Plant

In compliance with DOE's Executive Order 13148, a plant program was developed to improve segregation and recycling methods used for disposal of sanitary waste. The FY 2001 program was designed to reduce the volume of sanitary waste being sent to local landfills.

Rocky Flats Environmental Technology Site

Concrete removed during dock repairs was reused on site for dam repairs. Excavated soil generated during construction activities was reused on site. Scrap ballasts are surveyed, decontaminated, and reused on site rather than disposed. Usable fluorescent light fixtures are also reused to illuminate gloveboxes with ceiling windows rather than disposed. Excess Bentonite was auctioned through the Property Utilization and Disposal Group. Excess containers were reused to package chemical waste in lieu of disposal. Excess Tantalum sheet stock and crucibles were auctioned through the Property Utilization and Disposal Group.

Sandia National Laboratory-California (Sandia/CA)

Sandia/CA implemented a pallet, crate, and miscellaneous clean wood recycling program with the help of Waste Management (WM) in Livermore. WM supplies bins for the collection of Sandia/CA wood and also pick-up service for the full bins.

Sandia National Laboratory-New Mexico (SNL)

Pollution Prevention staff conducted an assessment at SNL's Neutron Generator facility and identified opportunities to reduce their solid waste generation and increase recycling.

Savannah River Site (SRS)

The Process Engineered Fuel Facility was installed at the Savannah River Site. When this process is licensed by the state, sanitary waste which would have otherwise gone to a landfill will be made into fuel pellets which can be burned in the SRS boiler. This new process will save on cost for disposal of waste and cost of coal for burning in the boiler. The emissions will be significantly lower from the coal/pellet mixture versus the coal

only mixture.

Strategic Petroleum Reserve (SPR)

The Paint Continuous Quality Improvement team was successful in implementing a new two-part painting system and administrative controls to reduce the paint waste generated. Excess paint was put back into re-use when possible. Staff also successfully reduced laboratory waste by putting laboratory solvent to use in cleaning applications on the SPR. Diesel oil filters are now recycled. The diesel is reclaimed and used as fuel while the metal portion of the filter is recycled as scrap metal. All of these efforts resulted in a 45% reduction in Resource Conservation and Recovery Act (RCRA) waste for FY 2001 and is reported in the Annual Waste Minimization /Pollution Prevention Progress Report. Reduction in sanitary waste was due to expansion of recycling programs at some locations. Greater accuracy was built into the sanitary waste generation calculations with a decrease in frequency of waste pick-ups.

Thomas Jefferson National Accelerator Facility

Two local office related recycling centers were established in main traffic areas. Collection bins are provided for used small batteries, Tyvek envelopes, overhead slides, CDs, styrofoam packing materials, cans, and plastic bottles. In addition, the staff members in these areas have been briefed and provided written information on the importance of recycling.

Western Area Power Administration

Paper recycling was promoted. Cardboard recycling was implemented at several offices.

Y-12 National Security Complex (Y-12)

Y-12 pollution prevention (P2) accomplishments are reported to DOE semi-annually. Select Y-12 P2 accomplishments involving solid waste prevention are highlighted in this section.

1) SOLVENT DISPENSING STATIONS (930001): In Analytical Chemistry, two bulk solvent dispensing stations provide acetone and methanol. Users must bring empty containers and fill at these locations. The stations are located in flammable storage cabinets. The bulk containers are returned to the vendor to be refilled. The disposable glass containers (solid sanitary landfill waste) will be eliminated. The waste liquid resulting from the triple rinsing of containers prior to disposal will be eliminated.

2) PLASTIC PALLET RECYCLE (2001) (2001362): In an effort to reduce the number of wooden pallets entering Y-12, the Pollution Prevention Program has initiated a plastic pallet pilot program. The AVID Vendor Kelsan has agreed to participate in the pilot and picked up their first supply of plastic pallets during March 2001. Future deliveries from

Kelsan to Y-12 will be made using the plastic pallets. These pallets will be tracked throughout Y-12 over the next several months to document the program's success.

3) PLASTIC RECYCLE ANALYTICAL CHEMISTRY (2001) (2001383): Urinalysis kit bottles are recycled by Y-12 Analytical Chemistry.

Yucca Mountain Site Characterization Project Office (YMP)

The YMP has had an effective and proactive waste minimization program in place for many years. The YMP is currently investigating new processes for diverting solid waste from the disposal pathway to the reuse and recycling pathway. During CY-2001 two Pollution Prevention Opportunity Assessments (PPOA) were performed with the intent of diverting waste from the landfills to the recycle bins. The first addressed lines of responsibility and recordkeeping, and proposed ways of expanding upon existing recycling activities at the site. The second PPOA investigated ways of expanding recycling programs at the Las Vegas facilities. Additionally, changes were made to the Purchasing Program instruction book directing personnel to purchase according to EPA guidelines. The Purchase Requisition software was also modified to require each purchaser to properly address EO-13101 specifications and to establish computer links that will allow the FY-2002 report to be more easily and accurately compiled than in the past.

During FY-2001 the YMP initiated the aggressive goal of reducing paper consumption by 50%. Numerous programs and various approaches have been instituted to help reach the goal. The environmental compliance organization embarked upon a dynamic program of attending departmental meetings throughout the YMP in order to discuss Waste Minimization and Pollution Prevention, and to describe the needs behind affirmative purchasing, reuse, and recycling initiatives.

In response to the accumulation of debris in the field, a new recycling yard was established at the site. The new yard was established to allow for the segregation of reusable waste from disposable waste. A variety of recycling bins, luggers, and dumpsters were set up, allowing for a more organized approach to managing reusable waste and expedient disposal of unusable debris.

Attachment AK
Reasons Why New Solid Waste Prevention Practices Were Not Instituted

Bettis Atomic Power Laboratory

Bettis has had an active pollution prevention program for many years. Some of the key aspects of this program include reviews of purchases of new chemicals, minimization of process waste through periodic reviews, chemical substitutions and equipment or process changes, and exchange of excess chemicals.

Fernald Environmental Management Project

As this site is a remediation site, solid waste prevention practices implemented already address all available opportunities.

Grand Junction Office

No new programs were found that had potential for a return on investment.

Knolls Atomic Power Laboratory (KAPL)

KAPL has established recycling plans which include, but are not limited to, office paper, cardboard, scrap metal, scrap wood, and asphalt.

Miamisburg Environmental Management Project (Mound)

Mound is a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) closure site. Efforts are made to minimize solid waste where feasible. Practices are in place to recycle during demolition and restoration activities.

Oak Ridge Institute for Science and Education (ORISE)

Prior to FY 2001, ORISE already had a comprehensive solid waste prevention program in place. Improvements to the program were not required in FY 2001.

Princeton Plasma Physics Laboratory (PPPL)

PPPL did NOT start any new solid waste prevention items in FY01. In FY02 we will be upgrading a majority of our recycling stations in order to increase the % recycled in the Municipal Solid Waste stream.

Santa Susanna Energy Technology Engineering

Existing practices deemed adequate.

Waste Isolation Pilot Plant

Development of a program for recycling hazardous wastes was started in FY01, but is still in process.

Attachment AL EPP Pilot Programs

Argonne National Laboratory-East (ANL-E)

During FY2001, ANL-E constructed a new shipping and receiving facility called the Argonne Central Supply Facility. This new facility incorporated environmentally sustainable design that includes over 15 building materials chosen for their recycled, renewable, or lower-emitting content. The materials used in construction were extracted, harvested and manufactured within a 500-mile radius of the construction site. In addition, this project was recognized to receive the White House with its "Closing the Circle" award for pollution prevention and "Greening the Government." ANL-E will continue to assess the environmentally preferable products for use in future projects.

Chicago Operations Office

Continued toner cartridge return project.

Headquarters

During FY 2001 the Print Shop participated in a copier paper pilot project with the Government Printing Office (GPO), EPA, and several other agencies in the Washington, D.C. area. The agencies assisted GPO in evaluating proposals to provide process chlorine free (PCF) copier paper with high recycled content and other preferred attributes. The point of the project was to see if PCF paper was available with acceptable performance standards. On behalf of the group of agencies, GPO purchased a truckload of paper and DOE's Print Shop participated in testing the paper in its high speed copy machines. The paper performed adequately for black and white, one-sided copying, but had problems with bleeding colors and with two-sided copying.

Los Alamos National Laboratory

The Laboratory worked with custodial services to replace the spray and wipe cleanser that was being used with a biobased cleanser. The custodial staff is pleased with the performance of the cleanser.

Miamisburg Environmental Management Project

BWX Technologies (BWXT) of Ohio (BWXTO) participated in a Waste Wise program held by the Department of Energy. The following are goals for program that have been submitted to the U.S. EPA:

1. Send lead to Oak Ridge to be made into shielding for containers
2. Define radiological areas (RMMAs) more precisely so that non-radiological materials are not disposed of as radiological waste unnecessarily and, therefore, promoting reuse/recycle.
3. Look for ways to reduce energy consumption plantwide by using more energy efficient

- lighting and educating the workforce on "turning off equipment when not in use".
4. Recycling Collection - Streamline the collection process for the custodial staff.
 5. Purchasing re-refined oil, antifreeze, and retread tires for GSA fleet vehicles.

BWXTO has established a path forward regarding the purchase of re-refined oil and antifreeze, as well as discussions regarding setting up a program for recycling antifreeze.

Pacific Northwest National Laboratory

The Pacific Northwest National Laboratory established a process to purchase custodial products, which are considered risk free to workers and the environment. To purchase environmentally preferable custodial products, Pacific Northwest formed a team of subject matter experts, developed specifications for a Request for Proposal, evaluated the ingredients in the proposed products against 20 criteria, selected the products determined to be the most environmentally preferable available, and signed agreements with two vendors. This reduced purchasing costs and untold dollars in reduced staff time, as well as offered other DOE sites the opportunity to cash in on our experience.

Sandia National Laboratory-New Mexico

Fleet Services in conjunction with Pollution Prevention tested several biobased solvents. The majority of tests were on two products that were soy-based. One of the two products is currently being used in small quantities, but was determined to not be suitable for all operations.

Strategic Petroleum Reserve (SPR)

SPR efforts were concentrated on raising employee awareness by administering an advanced computer based training course on Affirmative Procurement to the property managers and credit card holders as well as the buyers on the SPR. EPP is a portion of that awareness training. The Pollution Prevention Specialist is actively involved in obtaining samples of EPP for testing and then implementation if they perform well. If the Material Safety Data Sheet passes review then the new product is added to the Qualified Products List for purchasing site wide. Some of the EPP products reviewed included: pallets, mastic remover, and solvents, as well as all-purpose cleaners made from agriculture products.

West Valley Demonstration Project (WVDP)

Remote-Handled Waste Facility (RHWF) Design: Waste minimization has been incorporated in the design process of a new remote-handled waste facility. All personnel involved in the design & development of this new facility must coordinate their efforts with the Waste Management Department. Contract specifications included incorporation of "green purchasing" of all EPA-designated products purchased by the subcontractor. Subcontractor created a database for every item on this EPA-list and provides a status on all purchases to WVDP cognizant engineer on a monthly basis. In addition to assuring all

office products (including blueprint and drawing paper) are made from recycled/recovered material, building materials such as concrete, grout, and mortar mixes are included.

Additionally, specific areas called out in the design documents are: source reduction and recycling of waste, e.g. reuse of emptied waste containers; reduce/eliminate use of energy, water, and other resources through changing processes, recycling, or using products that contain recycled materials; protect natural resources through conservation or more efficient use of materials; and reduce/eliminate use of hazardous materials through material substitution, changing processes or recycling. The introduction of hazardous materials into the Work Cell is strictly prohibited.

Attachment AM
Purchases of Products with Recovered Materials Other Than the CPG Items

Argonne National Laboratory-East (ANL-E)

During FY2001, ANL-E constructed a new shipping and receiving facility called the Argonne Central Supply Facility. This new facility incorporated environmentally sustainable design that includes over 15 building materials chosen for their recycled, renewable, or lower-emitting content. The materials used in construction were extracted, harvested and manufactured within a 500-mile radius of the construction site. The following products were used in the construction of the Central Supply Facility:

- Fly ash aggregate in concrete
- Recycled concrete block
- Pulverizing and reuse of existing gravel asphalt & sub-base
- Reuse of existing excavated soil
- Recycled concrete curbs
- Native trees
- Native grass seed
- Recycled structural steel
- Recycled sustainable lumber
- Natural linoleum floor
- Recycled content carpeting
- Low volatile organic compound (VOC) and lead free paints
- Recycled content ceiling tiles
- Recycled plastic toilet dividers
- Gypsum board with recycled content
- Energy efficient mechanical and electrical systems

Bechtel Nevada

Rebuilt / refurbished engine parts were purchased. Total engine parts purchased were \$86,827.40. Rebuilt /refurbished engine parts totaled \$11,553.25 or 13.3%.

Chicago Operations Office

Chicago Operations Office sites are actively involved in the Materials Exchange Network and several sites have instituted chemical and equipment exchange programs. Examples of equipment recycled include radiation detection devices, specialized laboratory equipment, and waste management equipment.

Fermi National Accelerator Laboratory

Large tonnage of steel that may have otherwise gone to scrap have been purchased for scientific application. This steel has a substantial recycled content.

Hanford Environmental Health Foundation

We tried refilled ink jet toner cartridges but were not thrilled with the results. We found a supplier that sends prepaid envelopes to return the empty ink jet cartridges to a central plant for refilling at no charge (Recycled Office Products). We also were having a difficult time finding specific sized, orientation and color envelopes for scheduling and contracted with Griffin Envelopes to make them for us from recycled content paper. The price was very competitive and the product acceptable.

Idaho National Engineering and Environmental Laboratory (INEEL)

- 1) Nylon Carpet - \$30,000.00 spent on a job to recarpet building TRA-628. Type was Infinity Kaleidoscope #55021 manufactured by Collins & Aikman.
- 2) Plastic Toner Bottles which hold the dry ink for copiers - used at the INEEL Service Center copiers.
- 3) ASHRAE grade filters (Flanders Precisionaire Plant in Salt Lake City, Utah manufactures the ASHRAE grade filters from recycled materials) - currently researching if product may be suitable for operations at the INEEL.

Pacific Northwest National Laboratory

In FY2001, the Pacific Northwest National Laboratory purchased the following non-designated items with recycled content: bubble envelopes, hot cups, plastic tape/flags, sheet protectors, toilet seat covers, toner cartridges for color printers, and transparencies.

Waste Isolation Pilot Plant (WIPP)

The WIPP Site uses plastic slip sheets in between the containers used in the disposal of transuranic waste. The slip sheets are made of 100% recycled plastic materials. FY01 costs total \$90,480.00.

Yucca Mountain Site Characterization Project Office

A variety of office products were purchased during FY-2001 that contained recycled content for which there was no category. Those items include: (a) scissors with recycled metal in the blades and recycled plastic in the handles, (b) scissors that had recycled plastic handles but virgin metal in the blades, (c) staple removers with virgin metal mechanisms and recycled plastic handles, (d) staplers containing recycled plastic in the handles, (e) paper punches containing recovered materials, and (f) page dividers comprised of both virgin and recycled materials.